



aerospace
climate control
electromechanical
filtration
fluid & gas handling
hydraulics
pneumatics
process control
sealing & shielding





Air Preparation Products

Filters, Regulators, Lubricators, & Airline Accessories

Catalog 0700P-6



ENGINEERING YOUR SUCCESS.

Global Pneumatics, Warning, Offer of Sale



Global Pneumatics

This icon can be found next to products that are widely supported by Parker Pneumatics' worldwide manufacturing and sales network. When you see this icon, you can be con dent that this product is manufactured and/or stocked* worldwide for rapid delivery. In addition to local manufacturing or inventory, our sales network has been speci cally trained on these products to provide our customers with the best possible service.

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⚠ WARNING

FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS AND/OR SYSTEMS DESCRIBED HEREIN OR RELATED ITEMS CAN CAUSE DEATH, PERSONAL INJURY AND PROPERTY DAMAGE.

This document and other information from Parker Hanni n Corporation, its subsidiaries and authorized distributors provide product and/or system options for further investigation by users h aving technical expertise. It is important that you analyze all aspects of your application including consequences of any failure, and review the information concerning the product or system in the current product catalog. Due to the variety of operating conditions and applications for these products or systems, the user, through its own analysis and testing, is solely responsible for making the nal selection of the products and systems and assuring that all performance, safety and warning requirements of the application are met.

The products described herein, including without limitation, product features, speci cations, designs, availability and pricing, are subject to change by Parker Hanni n Corporation and its subsidiaries at any time without notice.

Offer of Sale

The items described in this document are hereby offered for sale by Parker Hanni n Corporation, its subsidiaries or its authorized distributors. This offer and its acceptance are governed by the provisions stated on the separate page of this document entitled "Offer of Sale".

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Pneumatic Division
Richland, Michigan
www.parker.com/pneumatics

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At Parker, we have the largest global distribution network in motion and control, with over 7,500 distributors serving more than 422,000 customers.

To find the distributor nearest you, please visit our DISTRIBUTOR LOCATOR at http://www.parker.com/pneu/distributor



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Notes

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Filters, Regulators, Lubricators	***www.parker.com/pneu/frl***		A Filters, Regulators, Lubricators
Stainless Steel FRLs	***www.parker.com/pneu/ssfrls***		B Stainless Steel FRLs
Precision Regulators	***www.parker.com/pneu/precreg***		C Precision Regulators
Proportional Regulators (“P3HP” / “P3KN” & “PAR™-15”)			D Proportional Regulators
Flow Controls & Accessories	***www.parker.com/pneu/accessories***		E Flow Controls and Accessories
Control Panel Products (Human / Machine Dialog)	***www.parker.com/pneu/cpp***		F Control Panel Products
Sensing (Pneumatic Control Components)	***www.parker.com/pneu/limsen***		G Sensing
“LV” / “EZ” Lockout Valves (Lockout Valves)	***www.parker.com/pneu/lockout***		H “LV” / “EZ” Lockout Valves
Ball Valves / Plug Valves / Drain Cocks	***www.parker.com/pneu/ball***		J Ball Valves / Plug Valves
Safety Blow Guns			K Safety Blow Guns
Quick Couplings			L Quick Couplings
Fittings & Hose			M Fittings and Hose
Fittings & Tubing			N Fittings and Tubing
Safety Guide Offer of Sale			P Safety Guide & Offer Sale

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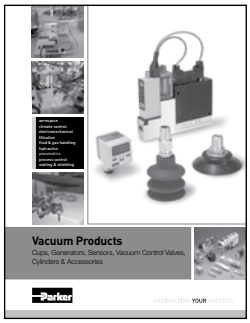
Other Products from Parker Pneumatic...



Catalog 0600P

Air Control Valves & Accessories

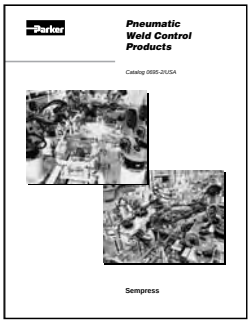
- Solenoid Valves
- Control Panel Products
- Collective Wiring Systems
- Limits & Sensors
- Manual / Mechanical Valves
- Flow Controls & Accessories
- Fittings & Tubing
- Ball Valves / Plug Valves



Catalog 0802/USA

Vacuum Cups, Vacuum Generators Pressure Sensors

- Versatile Bellows Cup Designs
- Vacuum Generators that Create High Vacuum with Fast Response
- Semi-Conductor Based Pressure Sensors with an Integrated Digital Display, Includes Interfacing User-Programming Capabilities



Catalog 0695/USA

Weld Control Products

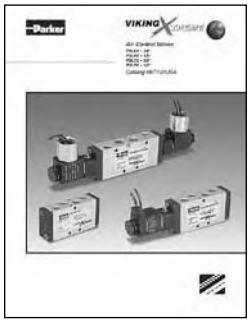
- Cylinders for Manual and Robotic Spot Welding
- Valve Blocks with Rapid Approach for Pre-Stroke and Low-Impact with Electrical feedback for Weld Stroke
- Air and Water Service Units



Catalog FRL-PAI-3/USA

Prep-Air® I

- Air Preparation Units – FRL's
- Heavy Duty Construction
- 1/8 to 1 Inch Ports Available



Catalog 0677-2/USA

Viking Xtreme

- ATEX Optional Available
- Global Product
- Designed Specifically for the Transportation Market
- Suitable for Low Temp Applications
- 4-Way Directional Control Valves



Catalog VAL-CYC-3/USA

Cyclone Series

- General Purpose, Stainless Steel or Brass Solenoid Valves
- Used with Air and Inert Liquids and Gasses
- Available in a Variety of Pressure and Flow Ranges
- 1/8 & 1/4 Inch Ports Available



Bulletin 0600-B75

Pneumatic Solutions for Transportation

- Mobile Pneumatic Cylinders
- Mobile Pneumatic Valves
- Mobile *LOAD-TAMER*™
- Parker Kneeling Module
- Auxiliary Products
- Viking Xtreme



Catalog 0661/USA

XM Valve

- 3 & 4-Way, Direct Operated Solenoid Valves
- Inline, Subbase or Manifold Mounted
- Continuous Duty
- Balanced Poppet
- 1/8 Inch Ports

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Electronic Only. See www.parker.com/pneumatics

C/CW/CC Series

- Manual, Cam, Hand and Foot Operated
- 1/4 and 3/8 Inch Ports Available
- Suitable for Vacuum Service
- Can Be Used as a Diverter
- C/CW – 3-Way, Single Solenoid & Air Pilot, Inline Mounting
- CC – 4-Way, Single & Double Solenoid & Air Pilot, Side Ported Base



Catalog 0640-E/USA

Directional Control Valves

- Schrader Bellows Pilot, Mini-King, Electroaire, Multi-Purpose, Sliding Seals and Brass Poppet Valves



Catalog VAL-MISC-E/USA

Directair Series

- Direct Pipe Ported & Base Mounted
- 3 & 4-Way Directional Control Valves
- Solenoid & Air Pilot Operated
- 1/8 to 3/8 Inch Ports Available



Catalog VAL-DA-E/USA

HHB Series

- Heavy Duty, 4-Way Directional Control Valves
- Shur-shift chamber "Accumulator" Assures Positive Shifting Even at Low Pressure
- Suitable for Non-Lube Service
- Subbase or Manifold Mounted
- 3/8, 1/2 or 1 Inch Ports Available



Catalog 0665-E/USA

Load-Tamer™

- Pressure Control Panels Designed Specifically for Vehicular Air Suspension Applications
- Various Control Options including Electrical Switch, Toggle Switch, Push-Pull or External Remote Pilot
- 1/8 and 1/4 Inch Ports Available



Catalog 0675/USA

Valvair Sprint Series

- Heavy Duty, 4-Way Directional Control Valves
- 1/4 & 3/8 Inch Ports Available
- Dual O-Ring Design for Non-Lube, Dirty Environments
- Sandwich Regulators and Flow Controls Available



Catalog VAL-VS-E/USA

Speed King SK200 Series

- Heavy Duty, 4-Way Directional Control Valves
- Base Mounted and Direct Pipe Ported
- 1/4 thru 1-1/4 Inch Ports Available
- Ideal for Non-Lube & Harsh Environments



Catalog VAL-SK-E/USA

T, GG & SS Series

- Compact Inline, for Easy Mounting
- 3 & 4-Way Directional Control Valves



Catalog 0620-E/USA

Valvair Manual Spool Valves

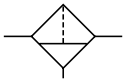
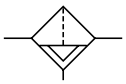
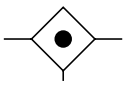
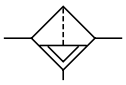
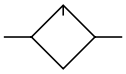
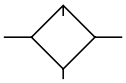
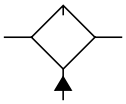
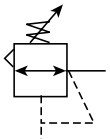
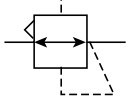
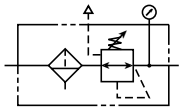
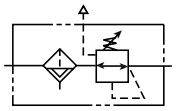
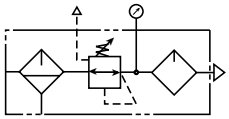
- Air Pilot, Manual & Mechanically Operated
- 1/4" to 1" NPTF Ports (to 1-1/2" in lock-out)
- Interchangeable Operators
- Interchangeable End Sections
- Service without Disturbing Plumbing
- Dual Mounting Brackets on Most Models



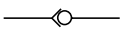
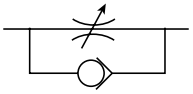
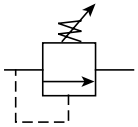
Catalog VAL-MO-E/USA

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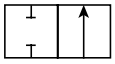
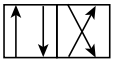
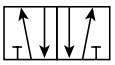
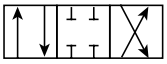
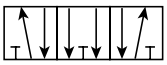
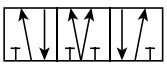
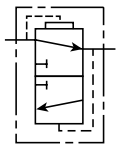
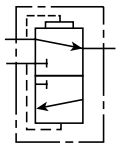
AIR PREPARATION UNITS

Symbol	Description
	FILTER / SEPARATOR with manual drain
	FILTER / SEPARATOR with automatic drain
	OIL REMOVAL FILTER
	AUTOMATIC DRAIN
	LUBRICATOR less drain
	LUBRICATOR with manual drain
	LUBRICATOR with automatic filling
	AIR LINE PRESSURE REGULATOR adjustable, relieving
	AIR LINE PRESSURE REGULATOR pilot controlled, relieving
	FILTER / REGULATOR (piggyback) Manual Drain Relieving (With Gauge)
	FILTER / REGULATOR (piggyback) Auto Drain Relieving
	AIR LINE COMBO F-R-L simplified

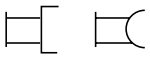
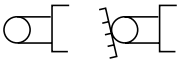
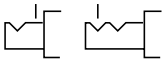
PNEUMATIC VALVES

Symbol	Description
	CHECK
	FLOW CONTROL
	RELIEF VALVE

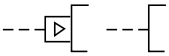
PNEUMATIC VALVES (Cont'd)

Symbol	Description
	2-POSITION 2-WAY
	2-POSITION 3-WAY
	2-POSITION 4-WAY
	2-POSITION, 4-WAY 5-PORTED
	3-POSITION, 4-WAY, APB ports closed, center pos.
	3-POSITION, 4-WAY, CE 5-PORTED cylinder ports open to exhaust in center position
	3-POSITION, 4-WAY, PC 5-PORTED pressure ports open to exhaust in center position
	QUICK EXHAUST
	SHUTTLE

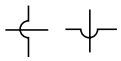
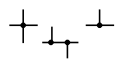
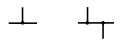
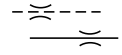
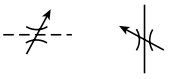
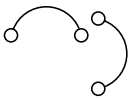
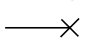
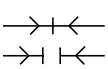
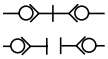
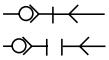
VALVE ACTUATORS

Symbol	Description
	MANUAL general symbol
	PUSH BUTTON
	LEVER
	PEDAL OR TREADLE
	MECHANICAL cam, toggle, etc.
	SPRING
	DETENT line indicates which detent is in use

VALVE ACTUATORS (Cont'd)

Symbol	Description
	SOLENOID
	INTERNAL PILOT SUPPLY
 complete simplified	REMOTE PILOT SUPPLY
	AND / OR COMPOSITE solenoid and pilot or manual override
	AND / OR COMPOSITE solenoid and pilot or manual override and pilot

LINES AND FUNCTIONS

Symbol	Description
	solid line – MAIN LINE
	dashed line – PILOT LINE
	dotted line – EXHAUST OR DRAIN LINE
	center line – ENCLOSURE OUTLINE
	LINES CROSSING (90° intersection not necessary)
	LINES JOINING (90° intersection not necessary)
	LINES JOINING
	FLOW DIRECTION hydraulic medium
	FLOW DIRECTION gaseous medium
	ENERGY SOURCE
	LINE WITH FIXED RESTRICTION
	LINE WITH ADJUSTABLE RESTRICTION
	FLEXIBLE LINE
	PLUGGED PORT, TEST STATION, POWER TAKE-OFF
 connected disconnected	QUICK DISCONNECT WITHOUT CHECKS
 connected disconnected	QUICK DISCONNECT WITH CHECKS
 connected disconnected	QUICK DISCONNECT WITH ONE CHECK

Parker Hannifin Corporation
Pneumatic Division
Richland, Michigan
www.parker.com/pneumatics

Saving Money and Space by Sizing Your Valves Properly
This catalog gives you a flow rating (Cv) for each valve in the Parker Hannifin line. You can "plug" *your* requirements into the following simple formula, and determine the Cv needed to do the job. By not oversizing, you'll save space and money, and you'll ensure the valve you select will do the job.

Converting the Job Requirements Into Cv (Capacity Coefficient).

$$C_V = \frac{\text{Cylinder Area (Sq. In.) (See Table 1)} \times \text{Cylinder Stroke (In.)} \times \text{Compression Factor (Table 2)} \times \text{"A" (Table 2)}}{\text{Stroke Time (sec.)} \times 28.8}$$

Let's work through an example:

We want to extend a $3^1/_4$" bore cylinder which has a 12" stroke in one second, and we have a supply pressure of 80 PSI to do the work. Here's what we know:

Cylinder Area for a 3-1/4" Bore, from Table 1 ..... 8.30 sq. in.

Cylinder Stroke ..... 12 in.

Stroke Time Required in Seconds ..... 1 sec.

Compression Factor at 80 PSI, from Table 2 ..... 6.4

"A" Constant for 80 PSI, from Table 2 ..... .048

Substituting in the formula, we have:

$$C_V = \frac{8.30 \times 12 \times 6.4 \times .048}{1 \times 28.8} = 1.06$$

Any valve, therefore, which has a Cv of *at least* 1.06, will extend our cylinder the specified distance in the required time.

Choosing the Valve "Series"
Your next step is to choose a basic valve design to do the job. For a quick guide to valve designs, see Table 3.

Having selected the basic valve design, consult the Capacity Coefficient (Cv) tables which describe the individual valve capacities.

Selecting the Valve Model, Options and Accessories
Having determined Cv, series, port size, flow-path configuration (pre-determined by circuit design), and actuation method, you're ready to choose the *exact* valve model number.

Read the pertinent catalog pages; note the exact model numbers, options and accessories you want. Then phone or write your Parker Hannifin air valve distributor. They will give you prompt, accurate service.

Note: Need circuit design help? Contact your local Parker Hannifin distributor. They are backed up by our regional Sales Engineers and offices. Between them, you'll find answers to all of your questions.

Table 1

Effective Square-Inch Areas for Standard-Bore-Size Cylinders

Bore Size	Cylinder Area (Sq. In.)	Bore Size	Cylinder Area (Sq. In.)
3/4"	.44	4"	12.57
1"	.79	4-1/2"	15.90
1-1/8"	.99	5"	19.64
1-1/4"	1.23	6"	28.27
1-1/2"	1.77	7"	38.48
1-3/4"	2.41	8"	50.27
2"	3.14	10"	78.54
2-1/2"	4.91	12"	113.10
3-1/4"	8.30	14"	153.94
3-5/8"	10.32		

Table 2

Compression Factors and "A" Constants

Inlet Pressure (PSIG)	Compression Factor	"A" Constants for Various Pressure Drop*		
		2 PSI △P	5 PSI △P	10 PSI △P
10	1.6	.152	.103	—
20	2.3	.126	.084	.065
30	3.0	.111	.073	.055
40	3.7	.100	.065	.048
50	4.4	.091	.059	.044
60	5.1	.085	.055	.040
70	5.7	.079	.051	.037
80	6.4	.075	.048	.035
90	7.1	.071	.046	.033
100	7.8	.068	.044	.032
110	8.5	.065	.042	.030
120	9.2	.063	.040	.029
130	9.9	.061	.039	.028
140	10.6	.058	.037	.027
150	11.2	.057	.036	.026
160	11.9	.055	.035	.025
170	12.6	.053	.034	.024
180	13.3	.052	.033	.024
190	14.0	.051	.032	.023
200	14.7	.050	.032	.023

Note: Use "A" constant at 5 PSI △P for most applications. On very critical applications, use "A" at 2 PSI △P. You will find in many cases, a 10 PSI △P is not detrimental, and can save money and mounting space.

* Tabulated values are the solution of $\frac{1}{22.48}\sqrt{\frac{GT}{(P_1 - P_2)\,P_2}}$ where T is for 68°F and G =1 for Air.

Table 3

Characteristics of the Major Valve Designs

A. Poppet 3-Way and 4-Way	1. High flow capacities 2. Minimum lubrication requirements 3. Fast response 4. Self-cleaning poppet seats 5. Pressures of 15 to 150 PSIG (modifications for vacuum to 250 PSIG)
B. Spool Valves (WCS) 3-Way and 4-Way	1. Low friction 2. Lower operating pressures 3. Fast response 4. Less wear 5. Long Cycle Life - Under pressure, radial expansion of the seal occurs to maintain sealing contact with the valve bore 6. Non-Lube Service - No lubrication required for continuous valve shifting 7. Bi-Directional Spool Seals - Common spool used for any pressure, including vacuum
C. Packed Bore 4-Way	1. Wide range of flow capacities 2. Wide range of flow-path configurations 3. Pilot-operated models available 4. Pressures of vacuum to 150 PSIG
D. Rotary Or Reciprocating Disc 4-Way, manually operated	1. Inexpensive 2. Versatility in manual actuation

Cv – Capacity Coefficients (sometimes called Flow Factors). Each flow path through the valve has its own Cv value. All Cv ratings for each valve cataloged on this page are listed on the front side of this sheet.

$$C_V = \frac{Q}{22.48}\sqrt{\frac{GT}{(P_1 - P_2)\,P_2}}$$

Q = Flow in Standard Cubic Feet per minute (14.7 PSIA at 60°F)
P_1 = Inlet Absolute Pressure (gauge pressure + 14.7)
P_2 = Outlet Absolute Pressure (gauge pressure + 14.7)
Note: P_2 must be greater than .53 x P_1
G = Specific Gravity of flowing medium (Air, G =1)
T = Absolute Temperature of Air (460 + °F.)

Cv = Q x "A" (Table 2)

Parker Hannifin Corporation
Pneumatic Division
Richland, Michigan
www.parker.com/pneumatics

The Parker 5-Year Extended Warranty

Parker Hannifin Corporation will extend its warranty on all pneumatic components to sixty (60) months providing they are correctly installed and protected by Parker pneumatic filters which are properly maintained. Components covered by this warranty include all cylinders, valves and pneumatic automation components manufactured by Parker in any of our global facilities. This warranty covers our components anywhere in the world you may ship your equipment.

Parker's obligation under this warranty is limited to the replacement or repair of any failed components. The buyer understands that the seller will not be liable for any other costs or damages.

The buyers of quality Parker components and filters benefit by having ONE source for all pneumatic needs - Parker.



R. Sherrard

Roger Sherrard
President
Automation Group

Parker
Pneumatic

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Pneumatic Division
Richland, Michigan
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Prep-Air® II
Air Preparation Units

A

Section A

www.parker.com/pneu/frl



Product Selection A3-A5
Air Line Filters A6-A29
Air Line Coalescing Filters A30-A49
Desiccant Dryers A50-A51
Air Line Regulators A52-A93
Filter / Regulator “Piggybacks” A94-A103
Air Line Lubricators, Micro-Mist A110-A117
Air Line Lubricators, Mist A118-A138
Combinations & Accessories
14A / 14G A140-A141
P3A A142-A143
15A / 15G / 15B / 15H A144-A149
06G / 16G / 06A / 16A A150-A151
07G / 17G / 07A / 17A A150-A151
06H / 16H / 06B / 16B A152-A153
07H / 17H / 07B / 17B A152-A153
06 / 07 Modular Accessories A154-A155
P3N A156-A160
C628 ..... A161
Air Line Accessories A162-A170

BOLD ITEMS ARE MOST POPULAR.

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⚠ CAUTION:

Polycarbonate bowls and sight domes, being transparent and tough, are ideal for use with Filters and Lubricators. They are suitable for use in normal industrial environments, but should not be located in areas where they could be subjected to direct sunlight, an impact blow, nor temperatures outside of the rated range. As with most plastics, some chemicals can cause damage. Polycarbonate bowls and sight domes should not be exposed to chlorinated hydro-carbons, ketones, esters and certain alcohols. They should not be used in air systems where compressors are lubricated with fire-resistant fluids such as phosphate ester and di-ester types.

Metal bowls are recommended where ambient and/or media conditions are not compatible with polycarbonate bowls. Metal bowls resist the action of most such solvents, but should not be used where strong acids or bases are present or in salt laden atmospheres. Consult the factory for specific recommendations where these conditions exist.

TO CLEAN POLYCARBONATE COMPONENTS USE MILD SOAP AND WATER ONLY! DO NOT use cleansing agents such as acetone, benzene, carbon tetrachloride, gasoline, toluene, etc., which are damaging to this plastic.

Metal bowl guards are recommended for all applications.

⚠ CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

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Product Selection Chart

Basic Unit	Series	Port Size											Bowls			Capacity	Elements (Micron)				Page
		1/8	1/4	3/8	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	Poly	Metal	Metal SG		5	20	40	Adsorber	
FILTERS	02F		X										Aluminum Body			—	Std.	—	—	—	A9
	14F	X	X										X	X	—	1 oz.	Std.	—	Opt.	Opt.	A10
	P3A-F	X	X										X	—	—	.9 oz.	Std.	—	—	—	A12
	05F		X	X									X	X	X	2 oz.	Opt.	—	Std.	Opt.	A14
	06F		X	X	X								X	X	X	4.4 oz.	Opt.	—	Std.	Opt.	A16
	07F			X	X	X							X	X	X	7.2 oz.	Opt.	—	Std.	Opt.	A18
	P3NF					X	X		X				—	—	X	18 oz.	Opt.	—	Std.	Opt.	A20
	F602					X	X	X	X	X	X		—	X	X	32 oz.	Opt.	—	Std.	—	A22
	09F									X			—	Metal w/ DPI		117 oz.	Std.	—	—	—	A28
COALESCING FILTERS	02F		X										Nylon Housing			—	Grade 6, Grade 10				A33
	10F	X	X										X	X	—	1 oz.	Grade 6 Std., Grade 10 Opt.				A34
	P3AF	X	X										X	—	—	.9 oz.	Grade 6 Std.				A36
	15F		X	X									X	X	X	2 oz.	Grade 6 Std., Grade 10 Opt.				A39
	11F		X	X	X								X	X	X	4.4 oz.	Grade 6 Std., Grade 10 Opt.				A40
	12F			X	X	X							X	X	X	7.2 oz.	Grade 6 Std., Grade 10 Opt.				A42
	P3NF					X	X		X				—	—	X	18 oz.	Grade 6 Std., Grade 10 Opt.				A44
	F701					X	X						—	X	X	32 oz. 100 oz.	Grade 6 Std., Grade 10 Std.				A46
	30F								X				—	X	—	14.8 oz.	Grade 6 Std., Grade 10 Std.				A48
	31F									X			—	X	—	17.9 oz. 20.9 oz.	Grade 6 Std., Grade 10 Std.				A48
	32F										X	X	—	X	—	29.7 oz.	Grade 6 Std., Grade 10 Std.				A48
DESICCANT DRYERS	DD15		X	X	X	X							—	—	X	8 lb.	Desiccant Dryer 90 Micron Rated				A50
	DD30				X	X	X						—	—	X	13 lb.	Desiccant Dryer 90 Micron Rated				A50
	DD60				X	X	X						—	—	X	20 lb.	Desiccant Dryer 40 Micron Rated				A50

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Product Selection Chart

Basic Unit		Series	Port Size										Spring Range												Page
			1/8	1/4	3/8	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	2	15	25	30	40	60	110	120	125	150	160	200	250	
REGULATORS	STANDARD	02R		X									—	—	—	—	—	—	—	—	Std.	—	—	—	—	A55
		14R	X	X									—	Opt.	—	Opt.	—	Opt.	—	—	Std.	—	—	—	—	A56
		P3A-R	X	X									—	Std.	—	Std.	—	Std.	—	Std.	—	—	—	—	—	A58
		R34	X	X									—	—	—	Opt.	—	Opt.	—	—	Std.	—	—	—	—	A60
		R24 / R25	X	X									—	—	Std.	—	—	Std.	—	—	Std.	—	—	—	—	A62
		R45 / R46		X	X								—	—	Std.	—	—	Std.	—	—	Std.	—	—	—	—	A64
		20R	X	X									—	Std.	—	Std.	—	Std.	—	—	Std.	—	—	—	—	A66
		15R		X	X								—	Opt.	—	Opt.	—	Opt.	—	—	Std.	—	—	—	—	A68
		05R		X	X								—	—	—	Opt.	—	Std.	—	—	Std.	—	—	Opt.	—	A70
		06R		X	X	X							—	—	—	—	—	Std.	—	—	Std.	—	—	—	Opt.	A72
		07R			X	X	X						—	—	—	—	—	Std.	—	—	Std.	—	—	—	Opt.	A74
		P3NR					X	X		X			—	—	—	—	—	Opt.	—	—	Std.	—	—	—	Opt.	A76
		R119					X	X	X	X			—	—	—	—	—	—	—	—	Std.	—	—	—	Opt.	A78
		09R									X		—	—	—	—	—	—	—	—	Std.	—	—	—	—	A80
	PILOT	10R		X	X								*	*	*	*	*	*	*	*	*	*	*	*	*	A82
		11R		X	X	X							*	*	*	*	*	*	*	*	*	*	*	*	*	A84
		12R			X	X	X						*	*	*	*	*	*	*	*	*	*	*	*	*	A86
		P3NR					X	X		X			*	*	*	*	*	*	*	*	*	*	*	*	*	A88
		R119					X	X	X	X	X	X	*	*	*	*	*	*	*	*	*	*	*	*	*	90

* Will follow Pilot Regulator setting.

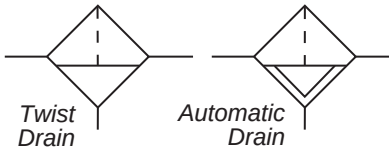
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Product Selection Chart

Basic Unit		Series	Port Size								Bowls			Capacity	Elements (Micron)			Adsorber	Spring Range								Page
			1/8	1/4	3/8	1/2	3/4	1	1-1/4	1-1/2	2	Poly	Metal	Metal SG		5	20	40		15	25	30	60	110	125	200	250	
FILTER/REGULATORS		14E	X	X								X	X	—	1 oz.	Std.	—	Opt.	Opt.	Opt.	—	Opt.	Opt.	—	Std.	—	—	A96
		P3A-EA	X	X								X	—	—	.9 oz.	Std.	—	—	—	—	—	Std.	Std.	Std.	—	—	—	A98
		05E		X	X							X	X	X	2 oz.	Opt.	—	Std.	Opt.	—	—	Opt.	Std.	—	Std.	Opt.	—	A100
		06E		X	X	X						X	X	X	4.4 oz.	Opt.	—	Std.	Opt.	—	—	Std.	Std.	—	Std.	—	Opt.	A102
		07E			X	X	X					X	X	X	7.2 oz.	Opt.	—	Std.	Opt.	—	—	Std.	Std.	—	Std.	—	Opt.	A104
		P3NE					X	X		X		—	—	X	18 oz.	Opt.	—	Std.	Opt.	—	—	—	Std.	—	Std.	—	Std.	A106
		12E			X	X	X					—	X	—	7.2 oz.	6 Std.	—	10 Opt.	—	—	—	Opt.	Opt.	—	Std.	—	Opt.	A108
LUBRICATORS	MICROMIST	15L		X	X							X	X	X	2 oz.	Cannot be filled under pressure											A112
		16L		X	X	X						X	X	X	2.6 oz.	Cannot be filled under pressure											A114
		17L			X	X	X					X	X	X	4.9 oz.	Cannot be filled under pressure											A116
	MIST	02L		X	X							Aluminum Body			.25 oz.	Cannot be filled under pressure											A121
		04L	X	X								X	X	—	1 oz.	Cannot be filled under pressure											A122
		P3A-LA	X	X								X	—	—	.9 oz.	Cannot be filled under pressure											A124
		06L		X	X	X						X	X	X	2.9 oz.	Can be filled under pressure											A126
		07L			X	X	X					X	X	X	6 oz.	Can be filled under pressure											A128
		P3NL					X	X		X		—	—	X	18 oz.	Can be filled under pressure											A130
		L606					X	X	X	X		—	X	X	16 oz. 32 oz. 64 oz.	Can be filled under pressure											A132
		09L									X	—	—	X	1 Qt. Std. 3 Qt. Opt.	Can be filled under pressure											A136
COMBOS	NIPPLED	14G	X	X								X	X	—	1 oz.	Two-Unit			Opt.		Opt.	Opt.	—	Std.	—	—	A140
		14A	X	X								X	X	—	1 oz.	Three-Unit			Opt.		Opt.	Opt.	—	Std.	—	—	
		15G		X	X							X	X	X	2 oz.	Two-Unit			—		Opt.	Std.	—	Std.	Opt.	—	A144
		15A		X	X							X	X	X	2 oz.	Three-Unit			—		Opt.	Std.	—	Std.	Opt.	—	
		06G/16G		X	X	X						X	X	X	2 oz.	Two-Unit			—		—	Std.	—	Std.	—	Opt.	A150
		06A/16A		X	X	X						X	X	X	2 oz.	Three-Unit			—		—	Std.	—	Std.	—	Opt.	
		07G/17G			X	X	X					X	X	X	2 oz.	Two-Unit			—		—	Std.	—	Std.	—	Opt.	
		07A/17A			X	X	X					X	X	X	2 oz.	Three-Unit			—		—	Std.	—	Std.	—	Opt.	
		P3N3A					X	X		X		—	—	X	18 oz.	Two-Unit			—		—	Std.	—	Std.	—	Std.	A156
		P3N3B					X	X		X		—	—	X	18 oz.	Three-Unit			—		—	Std.	—	Std.	—	Std.	
		C628					X	X	X	X		—	X	X	32 & 16	Three-Unit			—		—	—	—	Std.	—	Std.	A161
	MODULAR	P3A	X	X								X	—	—	.9 oz.	Two & Three-Unit			—		Std.	Std.	Std	—	—	—	A142
		15H		X	X							X	X	X	2 oz.	Two-Unit			—		Opt.	Std.	—	Std.	Opt.	—	A146
		15B		X	X							X	X	X	2 oz.	Three-Unit			—		Opt.	Std.	—	Std.	Opt.	—	
		06H/16H		X	X	X						X	X	X	2 oz.	Two-Unit			—		—	Std.	—	Std.	—	Opt.	A152
		06B/16B		X	X	X						X	X	X	2 oz.	Three-Unit			—		—	Std.	—	Std.	—	Opt.	
		07H/17H			X	X	X					X	X	X	2 oz.	Two-Unit			—		—	Std.	—	Std.	—	Opt.	
		07B/17B			X	X	X					X	X	X	2 oz.	Three-Unit			—		—	Std.	—	Std.	—	Opt.	
		P3NCA					X	X		X		—	—	X	18 oz.	Two-Unit			—		—	Std.	—	Std.	—	Std.	A158
		P3NCB					X	X		X		—	—	X	18 oz.	Three-Unit			—		—	Std.	—	Std.	—	Std.	

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Filters



- Pipe Sizes 1/8 thru 2 Inch
- Flows to 1000 SCFM
- Pressures to 250 PSIG

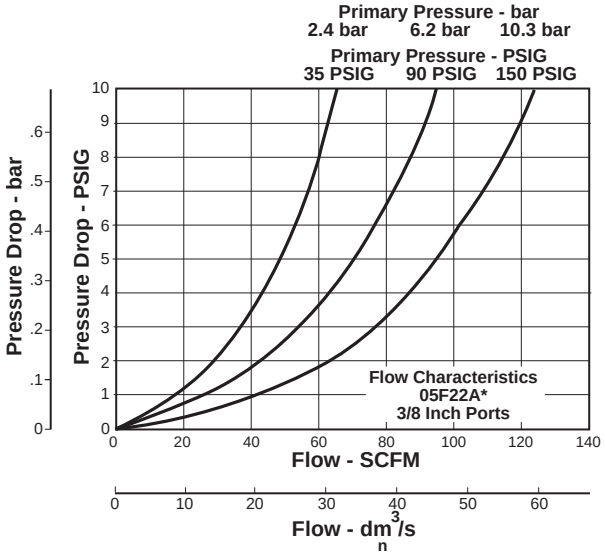
Air filters are designed to remove airborne solid contaminants, pipe scale, rust, pipe dope, etc., which may plug small orifices or cause excessive wear and premature failure of pneumatic components.

- Miniature 02F Series, 1/4 Inch
- Miniature 14F Series, 1/8 and 1/4 Inch
- Miniature P3A-FA Series, 1/8 and 1/4 Inch
- Economy 05F Series, 1/4 and 3/8 Inch
- Compact 06F Series, 1/4, 3/8 and 1/2 Inch
- Standard 07F Series, 3/8, 1/2 and 3/4 Inch
- Hi-Flow P3NF Series, 3/4, 1 and 1-1/2 Inch
- Hi-Flow F602 Series, 3/4, thru 2 Inch
- Hi-Flow 09F Series, 2 Inch

Filter Selection

1. Determine maximum system flow requirements.
2. Determine maximum allowable pressure drop at rated flow in SCFM.
3. Refer to flow chart and select filter pipe size by choosing curve that offers minimum pressure drop at desired flow in SCFM. For optimum performance, a 2 to 5 PSIG pressure drop should be selected.

Reading Flow Charts to Size Filters



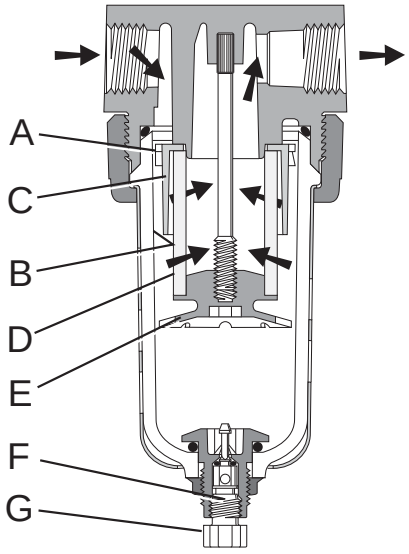
Once the required flow is determined for a pneumatic application, the filter can be selected by using the flow chart. To read the filter flow chart, first determine the inlet pressure that will be used. Find the appropriate pressure curve on the graph. Each graph will contain three pressure curves. If the required inlet pressure is not on the graph, interpolate a similar curve for the required pressure. Next, determine the acceptable pressure drop across the filter and locate it on the vertical axis. Find the intersection point of the acceptable pressure drop and the inlet pressure curve. At this point follow a vertical path downward to view the flow in SCFM. If the flow is too low, select a larger port size or body size to give the required flow. If the flow is higher than necessary, select a smaller port size or body size to give the required flow.

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Particulate Filters:

For the removal of solid particle contaminants down to 5 microns and the separation of bulk liquids.

This type of filter is generally used in industrial applications where liquid water and oil, and harmful dirt particles must be removed from the compressed air system. This type of filter should also be used as a prefilter for the Coalescing (oil removal) filter.



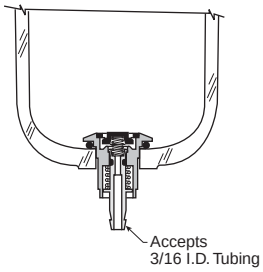
First Stage Filtration:

Air enters at inlet port and flows through deflector plate (**A**) which causes a swirling action. Liquids and coarse particles are forced to the bowl interior wall (**B**) by the centrifugal action of the swirling air. They then carry down the bowl wall by the force of gravity. Shroud (**C**) assures that the proper swirling action occurs and that the air does not pass directly through the filter element (**D**) until the large particles and liquids are removed. The baffle (**E**) separates the lower portion of the bowl into a “quiet zone” where the removed liquids and particles collect, unaffected by the swirling air, and are therefore not reentrained into the flowing air.

Second Stage Filtration:

After liquids and large particles are removed in the first stage of filtration, the air flows through element (**D**) where smaller particles are filtered out and retained. The filtered air then passes downstream. Collected liquids and particles in the “quiet zone” should be drained before their level reaches a height where they would be reentrained in the flowing air. This can be accomplished by the twist drain (**F**) which is actuated by twisting knob (**G**) counterclockwise. On the 09 Series, unscrew the drain valve (**F**) slightly until the liquid begins to drain.

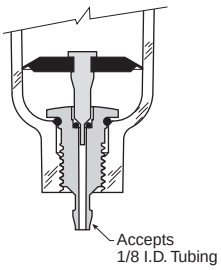
Semi Automatic Drain



(Overnight Drain)

This drain offers a semi-automatic function when there is a differential pressure in the filter which occurs when system pressure is shut off. The drain can also be used manually by gripping it with your fingertips and pushing upward.

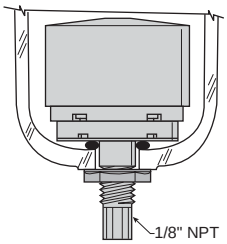
Automatic Pulse Drain



(Spitter Drain)

The diaphragm in this drain pulses when there is a pressure differential such as a valve cycling or cylinder stroking downstream. This action flexes the diaphragm and allows the filter to drain the entrapped water.

Automatic Float Drain

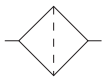


The float internal to this drain rises with increased liquid level. When the float rises, it opens a seat area allowing the trapped liquids to drain through the bottom.
A manual override can be pushed in the bottom of the drain to unseat the float if particulates create a block.

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02F Filters – Miniature





Specifications

Flow Capacity* ..... 17 SCFM (8 dm^3/s)
Operating Temperature ..... 32° to 150°F (0° to 65.5°C)
Maximum Supply Pressure ..... 200 PSIG (13.8 bar)
Standard Filtration ..... 5 Micron
Port Size NPT / BSPT 1/4
Weight lb. (kg) ..... 0.13 lb. (0.06 kg)

* Inlet pressure 90 PSIG (6.2 bar). Pressure drop 5 PSID (0.3 bar).

"F" Series Filters, Type "A" 5 micron elements: All Parker 5 micron elements **meet or exceed ISO** Class 3 for maximum particle size and concentration of solid contaminants.

Application

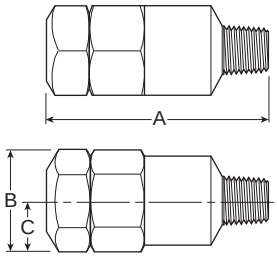
This small, aluminum in-line filter is designed to provide protection for portable pneumatic hand tools. It weighs only 2 ounces with a throw-away filter element rated at 5 micron. Either port may be used as the inlet port. Flow is 17 SCFM (10.3 dm^3/s) at 90 PSIG (6.2 bar) inlet pressure with 5 PSIG (0.3 bar) pressure drop.

Materials of Construction

Body ..... Aluminum
Baffle ..... Aluminum
Filter Element ..... Sintered Polyethylene
Seals ..... Nitrile

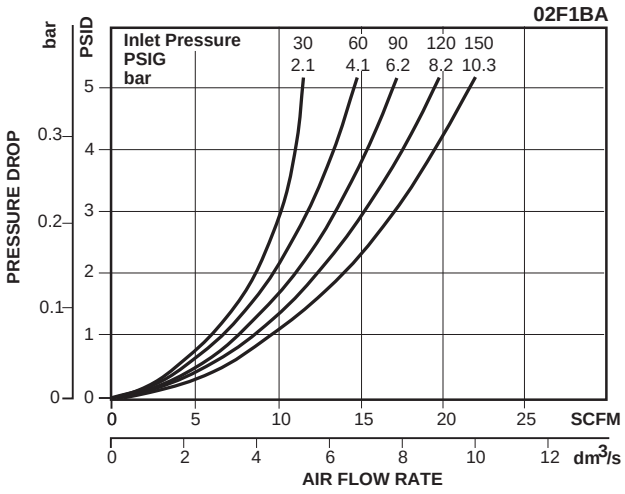
Replacement Element Kits

5 Micron PS436



Part Number	02F Filter Dimensions		
	A	**B**	**C**
02F1BA	2.50 (63.5)	1.00 (25)	.50 (13)

Inches (mm)

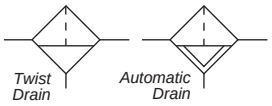


Ordering Information

Port Size	5 Micron
1/4"	**02F1BA**

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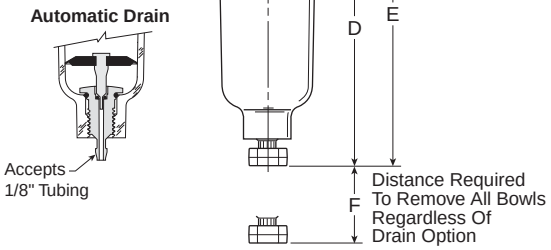
14F Filters – Miniature





Features

- Excellent water removal efficiency.
- Unique deflector plate that creates swirling of the air stream ensuring maximum water and dirt separation.
- Easily disassembled for servicing without the use of tools.
- 5 micron element standard.
- Interchangable Twist and Automatic Pulse Drains.
- High Flow: 1/8" – 22 SCFM§
  1/4" – 24 SCFM§



Port Size	NPT	
	Twist Drain	Automatic Pulse Drain
Poly Bowl ‡		
1/8"	**14F01B***	**14F05B***
1/4"	**14F11B***	**14F15B***
Metal Bowl without Sight Gauge		
1/8"	**14F03B***	**14F07B***
1/4"	**14F13B***	**14F17B***

Standard part numbers shown bold.
For other models refer to ordering information below.

‡ For polycarbonate bowl see Caution on page A2.

§ SCFM = Standard cubic feet per minute at 90 PSIG inlet and 5 PSIG pressure drop.

14F Filter Dimensions		
A 1.69 (43)	**B** 1.53 (39)	**C** .39 (10)
D 3.82 (97)	**D†** 3.87 (99)	**E** 4.21 (107)
E† 4.26 (108)	**F** 1.60 (41)	

Inches (mm)

† With Automatic Pulse Drain.

Ordering Information

14F	1	1	B	*	—

Port Size
0 1/8 Inch
1 1/4 Inch

Bowl Options
Polycarbonate Bowl
1 Twist Drain
5 Automatic Pulse Drain
Metal Bowl
3 Twist Drain
7 Automatic Pulse Drain

Elements
A 40 Micron
B 5 Micron
Z Adsorber

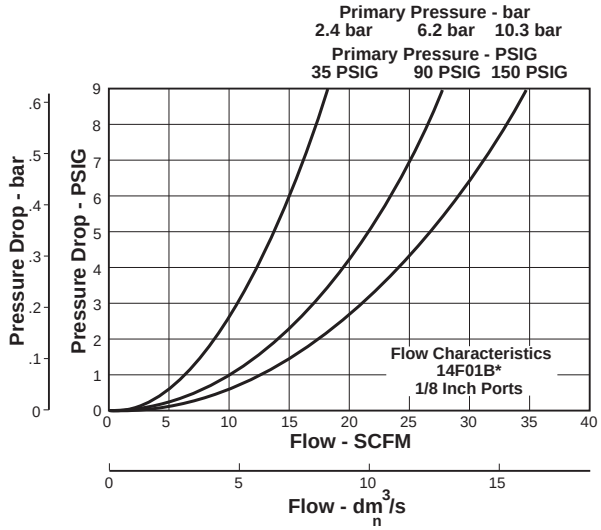
Engineering Level
* Will be Entered at Factory

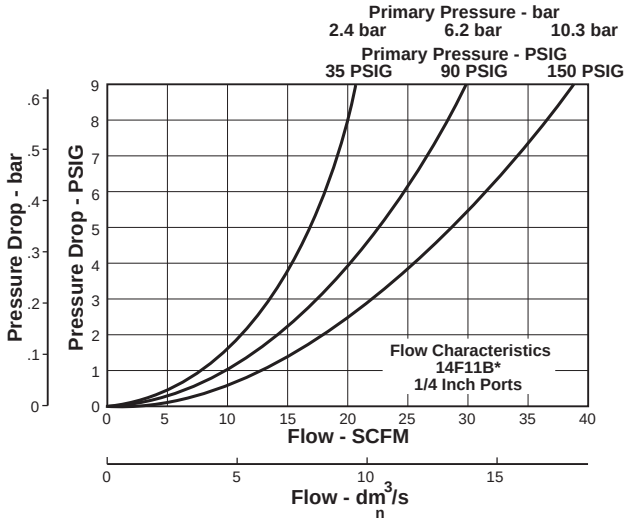
Port Type
Blank NPT
1 BSPP
2 BSPT

BOLD ITEMS ARE MOST POPULAR.

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Technical Information





14F Filter Kits & Accessories

Bowl Kits –
- Poly Bowl –
  - Automatic Pulse Drain PS408BP
  - Twist Drain PS404P
- Metal Bowl –
  - Automatic Pulse Drain PS451BP
  - Twist Drain PS447BP

Filter Element Kits –
- 40 Micron PS401P
- 5 Micron PS403P
- 5 Micron Cartridge Kit PS407P
- Adsorber PS452P

Mounting Bracket Kit PS417BP

Specifications

Automatic Pulse Drain Tube Barb ..... 1/8 Inch

Bowl Capacity ..... 1 Ounce

Port Threads ..... 1/8, 1/4 Inch

Pressure & Temperature Ratings –
- Polycarbonate Bowl ..... 0 to 150 PSIG (0 to 10.3 bar) 32°F to 125°F (0°C to 52°C)
- Metal Bowl ..... 0 to 250 PSIG (0 to 17.2 bar) 32°F to 175°F (0°C to 80°C)
- Automatic Pulse Drain ..... 10 to 250 PSIG (0.7 to 17.2 bar) at 125°F (52°C) or less

Weight ..... 0.41 lb. (0.18 kg)

Materials of Construction

Body ..... Zinc

Bowls ..... Transparent Polycarbonate
Metal (Zinc) Bowl w/o Sight Gauge

Deflector, Element Holder & Baffle ..... Plastic

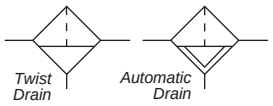
Drains –
- Twist Drain –
  - Body & Stem ..... Plastic
  - Seals ..... Nitrile
- Automatic Pulse Drain –
  - Piston & Seals ..... Nitrile
  - Stem, Seat, Adaptor & Washers ..... Aluminum

Filter Elements –
- 5 Micron (Standard) ..... Plastic
- 40 Micron (Optional) ..... Plastic
- Adsorber (Optional) ..... Activated Charcoal

Seals ..... Nitrile

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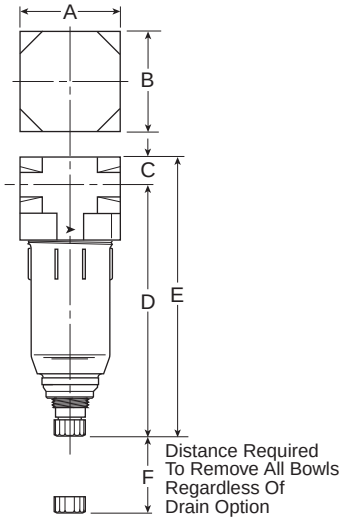
P3A-F Filters – Miniature





Features

- Lightweight plastic body.
- Excellent water removal efficiency.
- Unique deflector plate that creates swirling of the air stream ensuring maximum water and dirt separation.
- 5 micron element standard.
- Fingertip operated drain.
- Easily disassembled for servicing without the use of tools.
- High Flow: 1/4" – 34 SCFM§



Port Size	NPT	
	Twist Drain	Automatic Pulse Drain
1/8"	**P3A-FA91BENP**	**P3A-FA91CENP**
1/4"	**P3A-FA92BENP**	**P3A-FA92CENP**

Standard part numbers shown bold.
For other models refer to ordering information below.

‡ For polycarbonate bowl see Caution on page A2.

§ SCFM = Standard cubic feet per minute at 90 PSIG inlet and 5 PSIG pressure drop.

P3A-F Filter Dimensions		
A 1.57 (40)	**B** 1.57 (40)	**C** .43 (11)
D 3.98 (101)	**D†** 3.70 (94)	**E** 4.41 (112)
E† 4.13 (105)	**F** 2.00 (51)	

Inches (mm)

† With Automatic Pulse Drain.

Ordering Information

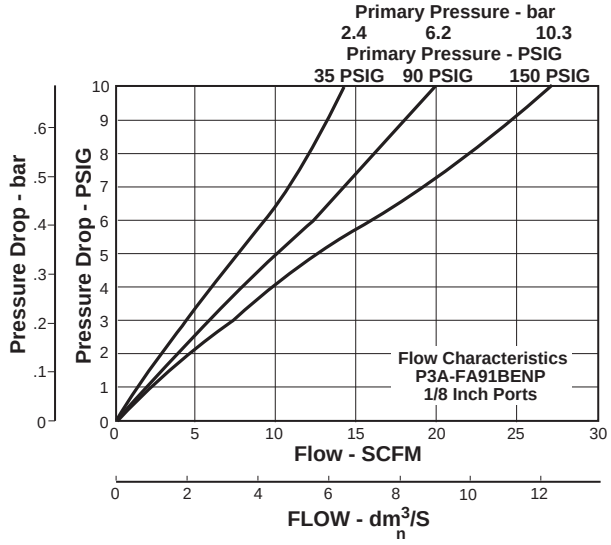
P3A-FA	9	1	B	E	N	P

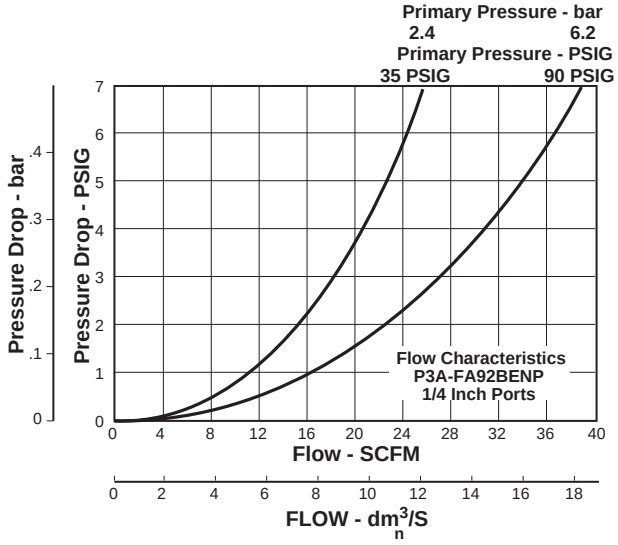
Port Type	Port Size	Bowl / Drain	Element	Options	Bowl Material
9 NPT Female	**1 1/8 Inch** **2 1/4 Inch**	Polycarbonate Bowl **B Twist Drain** **C Auto Pulse Drain**	**E 5 Micron**	**N None**	**P Polycarbonate**

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Technical Information





P3A-F Filter Kits and Accessories

Elements –
5 Micron Element P3A-KA00EEN

Plastic Bowls –
Bowl with Manual Drain P3A-KA00BBP
Bowl with Auto Pulse Drain P3A-KA00BCP

Service Kit P3A-KA00RFN

Wall Mount Kit P3A-KA00CFN

Specifications

Bowl Capacity ..... 0.9 Ounce

Sump Capacity ..... 0.24 Ounce

Port Threads ..... 1/8, 1/4 Inch

Operating Pressure Range	**PSIG**	**bar**
Maximum	120	8.3

Operating Temperature Range ..... 32°F to 125°F (0°C to 52°C)

Weight ..... 0.18 lb. (0.08 kg.)

Materials of Construction

Body ..... Plastic

Bowl ..... Transparent Polycarbonate

Deflector ..... Plastic

Drains –
Twist Drain –
Body & Stem ..... Plastic
Seals ..... Nitrile

Auto (Pulse) –
Piston & Seals ..... Nitrile
Stem, Seat, Adaptor & Washers ..... Aluminum

Filter Element & Baffle –
Standard 5 Micron ..... Nylon & Plastic

Port Inserts ..... Brass

Seals ..... Nitrile

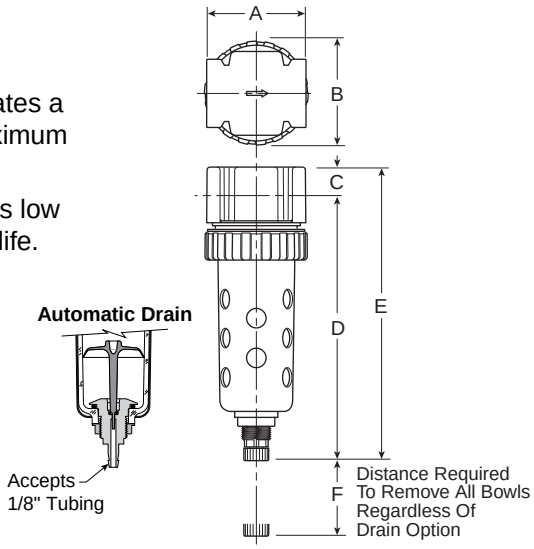
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05F Filters – Economy



Features

- Excellent water removal efficiency.
- Unique deflector plate and shroud creates a swirling of the air stream ensuring maximum water and dirt separation.
- Large filter element surface guarantees low pressure drop and increased element life.
- 40 micron filter element standard, 5 micron and adsorber available.
- Shown with recommended metal bowl guard.
- High Flow: 1/4" – 54 SCFM§
  3/8" – 70 SCFM§



Port Size	NPT	
	Twist Drain	Automatic Pulse Drain
Poly Bowl‡ / Metal Guard		
1/4"	**05F12A***	**05F1PA***
3/8"	**05F22A***	**05F2PA***
Metal Bowl / Sight Gauge		
1/4"	**05F14A***	**05F1TA***
3/8"	**05F24A***	**05F2TA***

Standard part numbers shown bold.
For other models refer to ordering information below.

‡ For polycarbonate bowl see Caution on page A2.

§ SCFM = Standard cubic feet per minute at 90 PSIG inlet and 5 PSIG pressure drop.

05F Filter Dimensions		
A 2.00 (51)	**B** 2.06 (52)	**C** .56 (14)
D† 5.35 (136)	**E**† 5.91 (150)	**F** 2.25 (57)

Inches (mm)

† With Twist or Automatic Pulse Drain

Ordering Information

05F	1	2	A	*	—	—

Port Size
- **1 1/4 Inch**
- **2 3/8 Inch**

Bowl Options

Polycarbonate Bowl	Metal Bowl
1 Twist Drain	3 Twist Drain
2 Metal Bowl Guard / Twist Drain	**4 Sight Gauge / Twist Drain**
N Auto Pulse Drain	R Auto Pulse Drain
P Metal Bowl Guard / Auto Pulse Drain	**T Sight Gauge / Auto Pulse Drain**

Elements
- **A 40 Micron**
- B 5 Micron
- Z Adsorber

Engineering Level
- * Will be Entered at Factory

Port Type

Blank	NPT
1*	BSPP
2	BSPT

* 1/4 & 3/8 inch meet ISO 1179-1 Standard.

Options

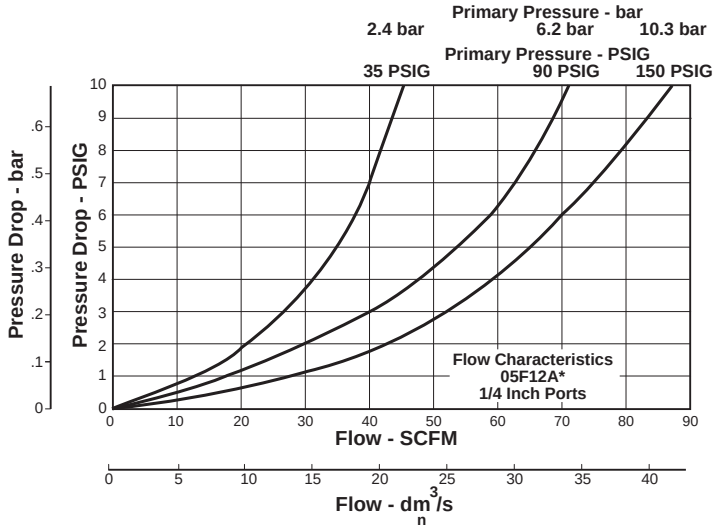
Blank	No Options
P	With Differential Pressure Indicator

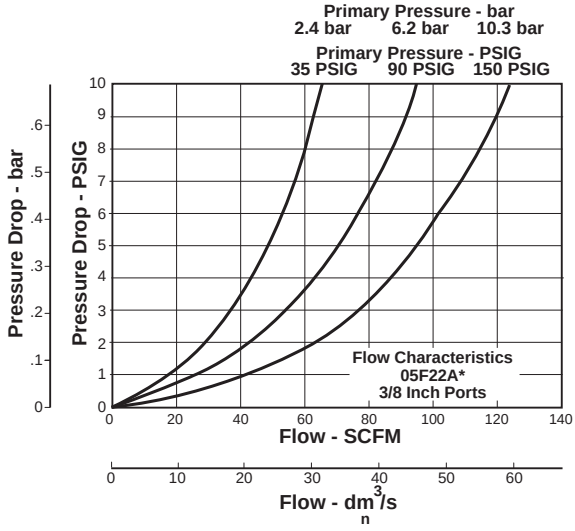
BOLD ITEMS ARE MOST POPULAR.

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A

Technical Information





05F Filter Kits & Accessories

Bowl Guard Kit PS905P

Bowl Kits –
- Poly Bowl –
  - Automatic Pulse Drain PS995P
  - Twist Drain PS932P
- Metal Bowl –
  - Automatic Pulse Drain PS997P
  - Twist Drain PS934P
  - Sight Gauge / Automatic Pulse Drain PS996P
  - Sight Gauge / Twist Drain PS935P

DPI Replacement Kit PS781P

Drain Kit –
- Automatic Pulse Drain PS998P
- Semi-Auto Drain PS511P
- Twist Drain PS512P
- Push 'N' Drain PS513P

Filter Element Kits –
- 40 Micron PS901P
- 5 Micron PS902P
- Adsorber PS931P

Mounting Bracket Kit PS943P

Sight Gauge Kit PS914P

Specifications

Bowl Capacity ..... 2.0 Ounces

Sump Capacity ..... 0.9 Ounce

Port Threads ..... 1/4, 3/8 Inch

Pressure & Temperature Ratings –

Without Differential Pressure Indicator:

Polycarbonate Bowl – 0 to 150 PSIG (0 to 10.3 bar)
32°F to 125°F (0°C to 52°C)

Metal Bowl – 0 to 250 PSIG (0 to 17.2 bar)
32°F to 175°F (0°C to 80°C)

With Differential Pressure Indicator: 0 to 150 PSIG (0 to 10.3 bar)
32°F to 125°F (0°C to 52°C)
Automatic Pulse Drain – 10 to 150 PSIG (0.7 to 10.3 bar)

Weight ..... 1.2 lb. (0.54 kg)

Materials of Construction

Body ..... Zinc

Bowls ..... Transparent Polycarbonate or Metal (Zinc) With or Without Sight Gauge

Bowl Guards ..... Steel

Collar ..... Plastic

Deflector, Shroud & Baffle ..... Plastic

Drain ..... Plastic

Filter Elements –
- 40 Micron (Standard) ..... Plastic
- 5 Micron (Optional) ..... Plastic
- Adsorber (Optional) ..... Activated Charcoal

Seals ..... Nitrile

Sight Gauge, DPI ..... Polyamide (Nylon)

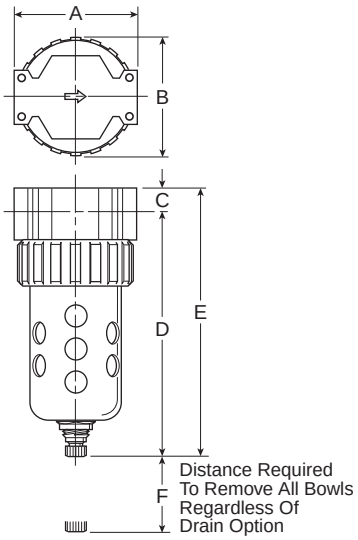
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06F Filters – Compact



Features

- Excellent water removal efficiency.
- Unique deflector plate and shroud creates a swirling of the air stream ensuring maximum water and dirt separation.
- Large filter element surface guarantees low pressure drop and increased element life.
- Optional Push 'N' Drain requires only fingertip touch to drain. Optional automatic float drain available.
- Shown with recommended metal bowl guard.
- High Flow: 1/4" – 53 SCFM§
  3/8" – 80 SCFM§
  1/2" – 85 SCFM§



Port Size	NPT	
	Twist Drain	Automatic Float Drain
Poly Bowl‡ / Metal Guard		
1/4"	**06F12A***	**06F16A***
3/8"	**06F22A***	**06F26A***
1/2"	**06F32A***	**06F36A***
Metal Bowl / Sight Gauge		
1/4"	**06F14A***	**06F18A***
3/8"	**06F24A***	**06F28A***
1/2"	**06F34A***	**06F38A***

Standard part numbers shown bold.
For other models refer to ordering information below.

‡ For polycarbonate bowl see Caution on page A2.

§ SCFM = Standard cubic feet per minute at 90 PSIG inlet and 5 PSIG pressure drop.

06F Filter Dimensions		
A 2.81 (71)	**B** 2.74 (70)	**C** .53 (13)
D 5.69 (145)	**D†** 5.74 (146)	**E** 6.22 (158)
E† 6.27 (159)	**F** 2.25 (57)	

Inches (mm)

† With Automatic Float Drain

Ordering Information

06F	1	2	A	*	—	—

Port Size
- **1 1/4 Inch**
- **2 3/8 Inch**
- **3 1/2 Inch**

Bowl Options

Polycarbonate Bowl	Metal Bowl
1 Twist Drain	3 Twist Drain
2 Metal Bowl Guard / Twist Drain	**4 Sight Gauge / Twist Drain**
5 Auto Float Drain	7 Auto Float Drain
6 Metal Bowl Guard / Auto Float Drain	**8 Sight Gauge / Auto Float Drain**

Elements
- **A 40 Micron**
- B 5 Micron
- Z Adsorber

Engineering Level
- * Will be Entered at Factory

Options
- **Blank None**
- P Differential Pressure Indicator

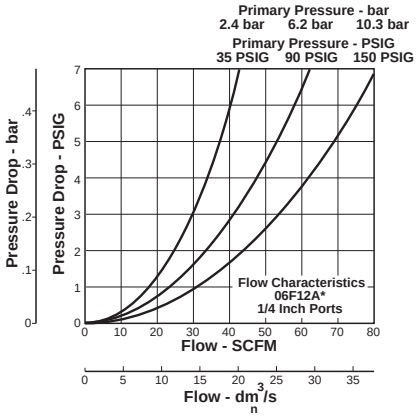
Port Type
- **Blank NPT**
- 1* BSPP
- 2 BSPT

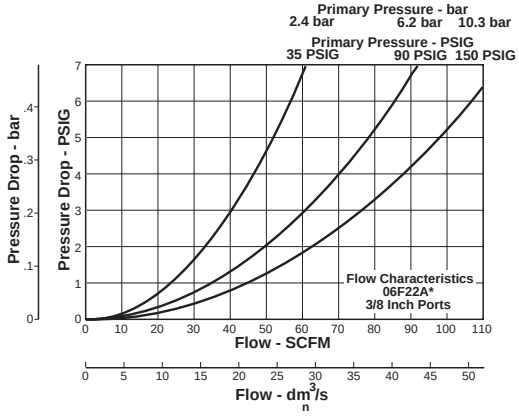
* 1/4 & 3/8 inch meet ISO 1179-1 Standard.

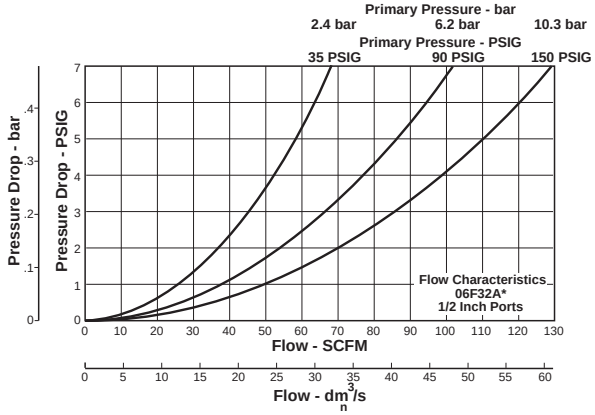
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Pneumatic Division
Richland, Michigan
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Technical Information







06F Filter Kits & Accessories

Bowl Guard Kit PS705P

Bowl Kits –
- Poly Bowl –
  - Automatic Float Drain PS722P
  - Twist Drain PS732P
- Metal Bowl –
  - Automatic Float Drain PS726P
  - Twist Drain PS734P
  - Sight Gauge / Automatic Float Drain PS723P
  - Sight Gauge / Twist Drain PS735P

DPI Replacement Kit PS781P

Drain Kits –
- Automatic Float Drain PS506P
- Semi-Auto Drain PS511P
- Twist Drain PS512P
- Push 'N' Drain PS513P

Filter Element Kits –
- 40 Micron PS701P
- 5 Micron PS702P
- Adsorber PS731P

Mounting Bracket Kit PS743P

Sight Gauge Kit PS914P

Specifications

Bowl Capacity ..... 4.4 Ounces

Sump Capacity ..... 1.75 Ounces

Port Threads ..... 1/4, 3/8, 1/2 Inch

Pressure & Temperature Ratings –

Without Differential Pressure Indicator:

Polycarbonate Bowl – 0 to 150 PSIG (0 to 10.3 bar)
32°F to 125°F (0°C to 52°C)

Metal Bowl – 0 to 250 PSIG (0 to 17.2 bar)
32°F to 175°F (0°C to 80°C)

With Differential Pressure Indicator: 0 to 150 PSIG (0 to 10.3 bar)
32°F to 125°F (0°C to 52°C)

Automatic Float Drain – 15 to 250 PSIG (1.0 to 17.2 bar)

Weight ..... 1.4 lb. (0.6 kg)

Materials of Construction

Body ..... Zinc

Bowls ..... Transparent Polycarbonate or Metal (Zinc) With or Without Sight Gauge

Bowl Guards ..... Steel

Collar ..... Plastic

Deflector, Shroud & Baffle ..... Plastic

Drains –
- Twist Drain – Body & Nut ..... Plastic
- Push 'N' Drain –
  - Body ..... Nitrile
  - Stem ..... Brass
- Automatic Float Drain – Housing, Float ..... Plastic
  - Seals ..... Nitrile
  - Springs, Push Rod ..... Stainless Steel

Filter Elements –
- 40 Micron (Standard) ..... Plastic
- 5 Micron (Optional) ..... Plastic
- Adsorber (Optional) ..... Activated Charcoal

Seals ..... Nitrile

Sight Gauge ..... Polyamide

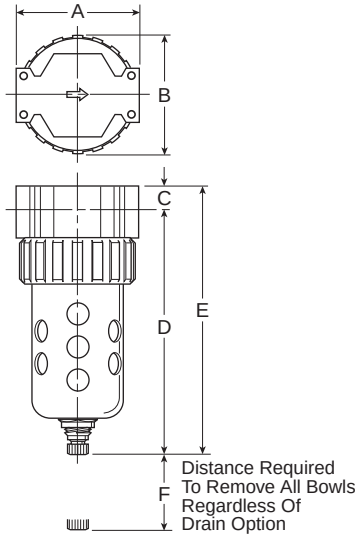
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07F Filters – Standard



Features

- Excellent water removal efficiency.
- Unique deflector plate and shroud creates a swirling of the air stream ensuring maximum water and dirt separation.
- Large filter element surface guarantees low pressure drop and increased element life.
- Optional Push 'N' Drain requires only fingertip touch to drain. Optional automatic float drain available.
- Shown with recommended metal bowl guard.
- High Flow: 3/8" – 100 SCFM§
  1/2" – 130 SCFM§
  3/4" – 145 SCFM§



Port Size	NPT	
	Twist Drain	Automatic Float Drain
Poly Bowl‡ / Metal Guard		
3/8"	**07F22A***	**07F26A***
1/2"	**07F32A***	**07F36A***
3/4"	**07F42A***	**07F46A***
Metal Bowl / Sight Gauge		
3/8"	**07F24A***	**07F28A***
1/2"	**07F34A***	**07F38A***
3/4"	**07F44A***	**07F48A***

Standard part numbers shown bold.
For other models refer to ordering information below.

‡ For polycarbonate bowl see Caution on page A2.

§ SCFM = Standard cubic feet per minute at 90 PSIG inlet and 5 PSIG pressure drop.

07F Filter Dimensions		
A 3.24 (82)	**B** 3.25 (83)	**C** .70 (18)
D 6.97 (177)	**D†** 7.00 (178)	**E** 7.67 (195)
E† 7.70 (196)	**F** 2.75 (70)	

Inches (mm)

† With Automatic Float Drain

Ordering Information

07F	3	2	A	*	—	—

Port Size
- **2 3/8 Inch**
- **3 1/2 Inch**
- **4 3/4 Inch**

Bowl Options

Polycarbonate Bowl	Metal Bowl
1 Twist Drain	3 Twist Drain
2 Metal Bowl Guard / Twist Drain	**4 Sight Gauge / Twist Drain**
5 Auto Float Drain	7 Auto Float Drain
6 Metal Bowl Guard / Auto Float Drain	**8 Sight Gauge / Auto Float Drain**

Elements
- **A 40 Micron**
- B 5 Micron
- Z Adsorber

Engineering Level
- * Will be Entered at Factory

Options
- **Blank None**
- P Differential Pressure Indicator

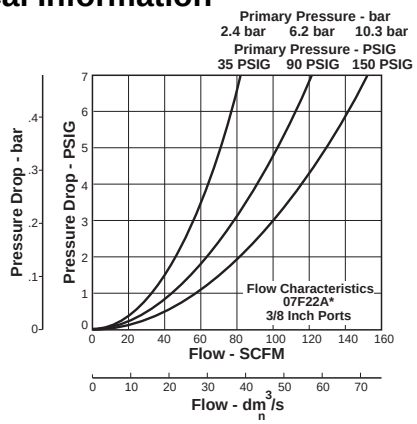
Port Type
- **Blank NPT**
- 1* BSPP
- 2 BSPT

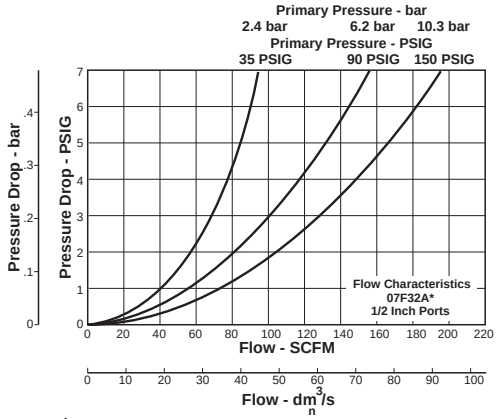
* 3/8 & 1/2 inch meet ISO 1179-1 Standard.

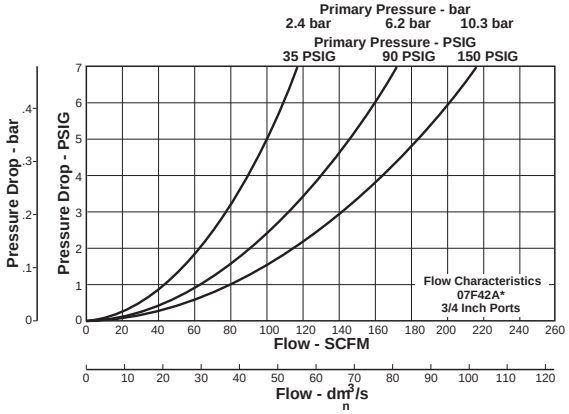
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Technical Information







07F Filter Kits & Accessories

Bowl Guard Kit PS805P

Bowl Kits –
- Poly Bowl –
  - Automatic Float Drain PS822P
  - Twist Drain PS832P
- Metal Bowl –
  - Automatic Float Drain PS826P
  - Twist Drain PS834P
  - Sight Gauge / Automatic Drain PS823P
  - Sight Gauge / Twist Drain PS835P

DPI Replacement Kit PS781P

Drain Kits –
- Automatic Float Drain PS506P
- Semi-Auto Drain PS511P
- Twist Drain PS512P
- Push 'N' Drain PS513P

Filter Element Kits –
- 40 Micron PS801P
- 5 Micron PS802P
- Adsorber PS831P

Mounting Bracket Kit PS843P

Sight Gauge Kit PS914P

Specifications

Bowl Capacity ..... 7.2 Ounces

Sump Capacity ..... 2.8 Ounces

Port Threads ..... 3/8, 1/2, 3/4 Inch

Pressure & Temperature Ratings –

Without Differential Pressure Indicator:

Polycarbonate Bowl – 0 to 150 PSIG (0 to 10.3 bar)
32°F to 125°F (0°C to 52°C)

Metal Bowl – 0 to 250 PSIG (0 to 17.2 bar)
32°F to 175°F (0°C to 80°C)

With Differential Pressure Indicator: 0 to 150 PSIG (0 to 10.3 bar)
32°F to 125°F (0°C to 52°C)

Automatic Float Drain – 15 to 250 PSIG (1.0 to 17.2 bar)

Weight ..... 2.2 lb. (1.0 kg)

Materials of Construction

Body ..... Zinc

Bowls ..... Transparent Polycarbonate
Metal (Zinc) With or Without Sight Gauge

Bowl Guards ..... Steel

Collar ..... Plastic or Metal

Deflector, Shroud & Baffle ..... Plastic

Drains –
- Twist Drain – Body & Nut ..... Plastic
- Push 'N' Drain –
  - Body ..... Nitrile
  - Stem ..... Brass
- Automatic Float Drain –
  - Housing, Float ..... Plastic
  - Seals ..... Nitrile
  - Springs, Push Rod ..... Stainless Steel

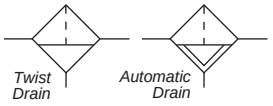
Filter Elements –
- 40 Micron (Standard) ..... Plastic
- 5 Micron (Optional) ..... Plastic
- Adsorber (Optional) ..... Activated Charcoal

Seals ..... Nitrile

Sight Gauge ..... Polyamide

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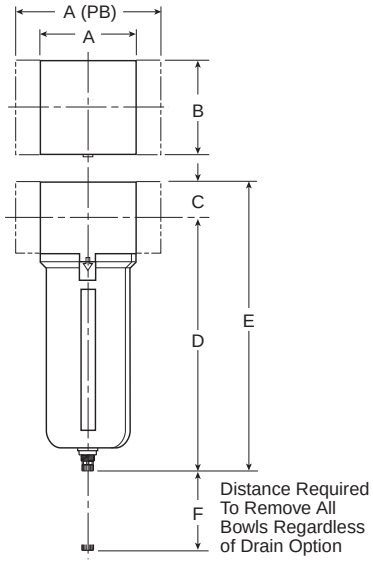
P3NF Filters – Hi-Flow





Features

- Port blocks (PB) available to provide 1-1/2" port extension to 1" ported bodies.
- Excellent water removal efficiency.
- Metal bowl with sight gauge.
- Large filter element surface guarantees low pressure drop and increased element life.
- Twist Drain as standard, optional automatic float drain.
- High Flow: 3/4" – 270 SCFM§
  1" – 300 SCFM§
  1-1/2" – 310 SCFM§



Port Size	NPT	
	Twist Drain	Automatic Float Drain
Metal Bowl / Sight Gauge		
3/4"	**P3NFA96GSM**	**P3NFA96GSA**
1"	**P3NFA98GSM**	**P3NFA98GSA**
1-1/2"#	**P3NFA9PGSM**	**P3NFA9PGSA**

Standard part numbers shown bold. For other models refer to ordering information below.

1" Port Body with 1-1/2" Port Block.

§ SCFM = Standard cubic feet per minute at 90 PSIG inlet and 5 PSIG pressure drop, with 40 micron element.

P3NF Filter Dimensions		
A 3.62 (92)	**A (PB)** 5.91 (150)	**B** 3.62 (92)
C 1.38 (35)	**D†** 9.57 (243)	**E†** 10.95 (278)
F 4.92 (125)		

Inches (mm)

† With Twist Drain or Automatic Float Drain

Ordering Information

P3N	F	A	9	8	G	S	M

Design Level

Port Type
- 1* G Thread (BSPP) Female
- 2 Rc Thread (BSPT) Female
- **9 NPT Female**

* 3/4 & 1 inch meet ISO 1179-1 Standard.

Port Size
- **6 3/4" (w/o Port Blocks)**
- **8 1" (w/o Port Blocks)**
- **P 1-1/2" Port Blocks (w/ 1" Ported Body)**

Element

w/o DPI Indicator
- A Adsorber
- E 5 Micron
- **G 40 Micron**

w/ DPI Indicator
- B Adsorber
- F 5 Micron
- H 40 Micron

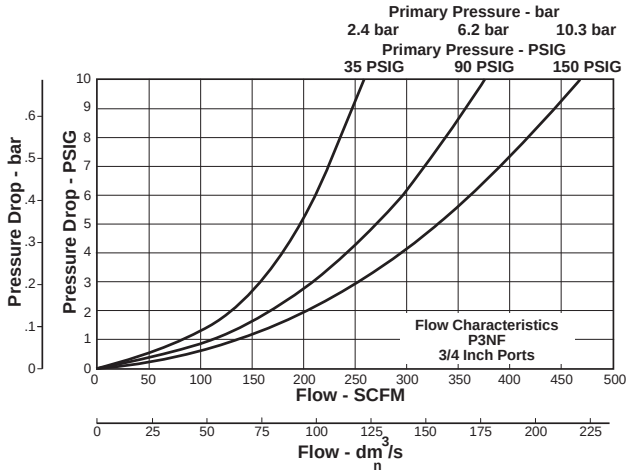
Bowl
- **S Metal Bowl w/ Sight Gauge**

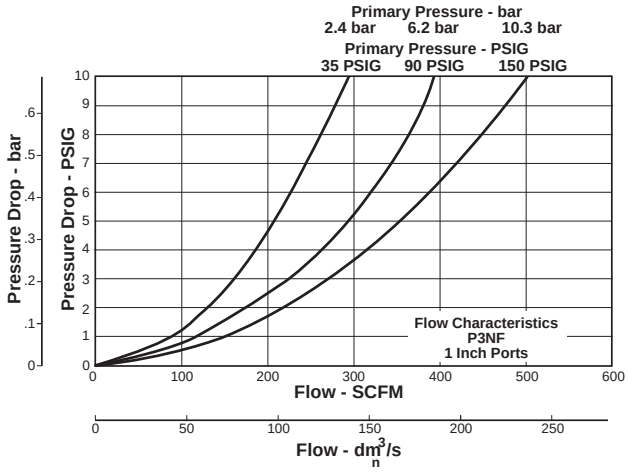
Drain
- **M Twist Drain**
- A Automatic Float Drain

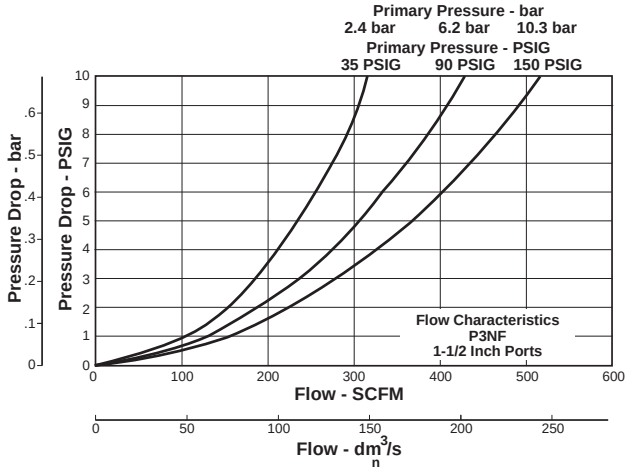
BOLD ITEMS ARE MOST POPULAR.

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Technical Information







P3NF Filter Kits & Accessories

Bowl Kits –
Metal Bowl –
Sight Gauge / Automatic Float Drain P3NKA00BSA
Sight Gauge / Twist Drain P3NKA00BSM
Sight Gauge / Push 'N' Drain P3NKA00BSP

Bowl Latch Kit C11A33

DPI Replacement Kit PS781P

Drain Kit –
Automatic Float Drain PS506P
Twist Drain PS512P

Filter Elements –
40 Micron P3NKA00ESG
5 Micron P3NKA00ESE
Adsorber P3NKA00ESA

Mounting Bracket Kit* P3NKA00MW

Sight Gauge Kit P3NKA00PE

* If 1-1/2 BSPP E02 fittings are required, use P3NKA0BMW.

Specifications

Pressure & Temperature Rating –
0 to 250 PSIG (0 to 17 bar) 32°F to 175°F (0°C to 80°C)
Automatic Float Drain – 15 to 250 PSIG (1.0 to 17 bar)

Bowl Capacity ..... 18.0 Ounces

Sump Capacity ..... 6.8 Ounces

Weight –
3/4" ..... 3.5 lb. (1.6 kg)
1" ..... 3.5 lb. (1.6 kg)
1-1/2" # ..... 4.6 lb. (2.1 kg)

Materials of Construction

Body ..... Aluminum

Deflector ..... Plastic

Drain ..... Plastic

Filter Elements –
40 Micron (Standard) ..... Plastic
5 Micron (Optional) ..... Plastic
Adsorber (Optional) ..... Activated Charcoal

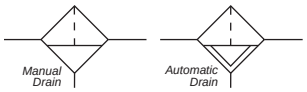
Seals ..... Nitrile

Sight Gauge ..... Polyamide (Nylon)

1" Port Body with 1-1/2" Port Block.

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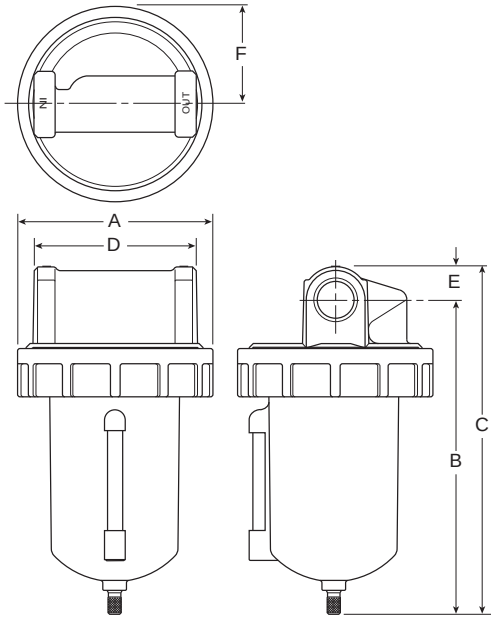
F602 Filters – Hi-Flow





Features

- Excellent water removal efficiency
- For heavy duty applications with minimum pressure drop requirement.
- Unique deflector plate that creates swirling of the air stream ensuring maximum water and dirt separation.
- Large filter element surface guarantees low pressure drop and increased element life.
- 40 micron filter element standard, 5 micron available.
- Metal bowl with sight gauge standard.
- Twist drain as standard, optional auto drain.
- Large bowl capacity.
- Optional high capacity bowl(s) available.
- High Flow: 3/4" – 270 SCFM§
  1" – 300 SCFM§



Port Size	NPT	
	Twist Drain	Internal Auto Drain
Metal Bowl / Sight Gauge - 16 oz.		
3/4"	**F602-06WJ**	**F602-06WJR**
1"	**F602-08WJ**	**F602-08WJR**
Metal Bowl without Sight Gauge - 32 oz.		
3/4"	F602-06EJ	F602-06EJR
1"	F602-08EJ	F602-08EJR

Standard part numbers shown bold.
For other models refer to ordering information below.

§ SCFM = Standard cubic feet per minute at 90 PSIG inlet and 5 PSIG pressure drop.

F602-06W, F602-08W Filter Dimensions					
A	**B**	**C**	**D**	**E**	**F**
4.90 (124)	7.88 (200)	8.72 (221)	4.06 (103)	0.84 (21)	2.45 (62)
F602-06E, F602-08E Filter Dimensions					
A	**B**	**C**	**D**	**E**	**F**
4.90 (124)	11.10 (282)	11.94 (303)	4.06 (103)	0.84 (21)	2.45 (62)

inches (mm)

Ordering Information

F	602	—	06	W	J	—	/**

Port Threads
- **— NPT**
- G BSPP

Port Size
- **06 3/4 Inch**
- **08 1 Inch**

Bowl
- E 32 oz. Large Capacity Metal without Sight Gauge
- **W 16 oz. Metal with Sight Gauge**

Element
- G 5 Micron
- **J 40 Micron**

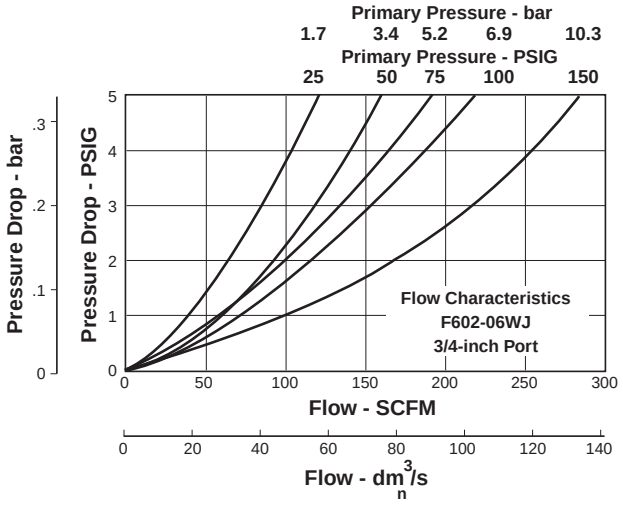
Drains and Options
- **Blank Manual Twist Drain**
- Q External Heavy Duty Auto Drain
- **R Internal Auto Drain**
- U Semi-Auto Drain

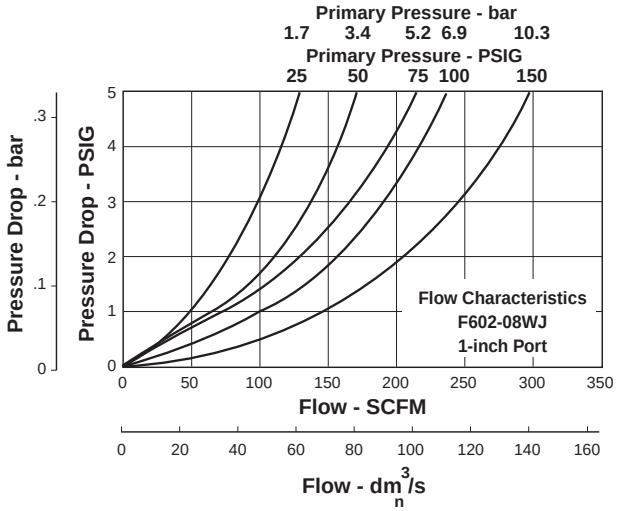
Engineering Level
- * Will be Entered at Factory.

BOLD ITEMS ARE MOST POPULAR.

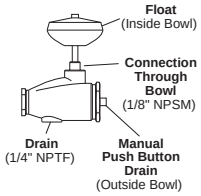
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Technical Information





"Q" Option External Heavy Duty Auto Drain
SA602D / SA603D
For heavy duty applications where the filter is being used to remove large volumes of liquid and/or particulate matter from the airstream, the external automatic drain ("Q" option) should be used.



F602 Filter Kits & Accessories

Bowl Kits –
Aluminum (E) 32 oz. BK603B
Zinc with Sight Gauge (W) 16 oz. BK605WB

Drain Kits –
External Auto (E) 32 oz. SA603D
External Auto (W) 16 oz. SA602D
Internal Auto (All) SA602MD
Manual (All) SA600Y7-1
Semi-Automatic "Overnight" Drain SA602A7
(Drains automatically under zero pressure)

Filter Element Kits –
40 Micron (All) EK602B
5 Micron (All) EK602VB

Mounting Bracket Kit
(Pair or 2 Kits Pipe Mounted Brackets needed) –
(3/4" Unit) SA200AW57
(1" Unit) SA200CW57

Repair Kits –
Deflector, Baffle Assembly, and Retaining Rod (E,W) RK602B
External Auto Drain (All) RK602D
Internal Auto Drain (All) RK602MD
Metal Bowl with Sight Gauge (W) 16 oz. RKB605WB

Specifications

Bowl Capacity –
Aluminum Bowl (E) 32 oz. ..... 32 Ounces
Zinc Bowl (W) 16 oz. ..... 16 Ounces

Port Threads ..... 3/4, 1 Inch

( ) = Bowl Type

Pressure & Temperature Ratings –
Aluminum Bowl (E) 32 oz. – 0 to 300 PSIG (0 to 20.4 bar)
40°F to 150°F (4.4°C to 65.6°C)

Zinc (W) 16 oz. – 0 to 250 PSIG (0 to 17.2 bar)
40°F to 150°F (4.4°C to 65.6°C)

With Internal Auto Drain (R) – 20 to 175 PSIG (1.4 to 11.9 bar)
40°F to 125°F (4.4°C to 52°C)

With External Auto Drain (Q) – 0 to 250 PSIG (0 to 17.2 bar)
40°F to 150°F (4.4°C to 65.6°C)

Weight –
Aluminum Bowl (E) 32 oz. ..... 7 lb. (3.18 kg) / Unit
28 lb. (12.70 kg) / 4-Unit Master Pack

Zinc Bowl (W) 16 oz. ..... 6.3 lb. (2.86 kg) / Unit
25 lb. (11.34 kg) / 4-Unit Master Pack

Materials of Construction

Body ..... Zinc

Bowls –
(E) 32 oz. ..... Aluminum without Sight Gauge
(W) 16 oz. ..... Zinc with Sight Gauge

Drain –
Manual Twist & Overnight ..... Brass
Housing "R" ..... Acetal
Housing "Q" ..... Bronze

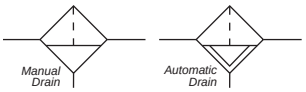
Filter Elements –
40 Micron (Standard) ..... Polypropylene
5 Micron (Optional) ..... Polypropylene

Seals ..... Nitrile

Sight Gauge ..... Nylon

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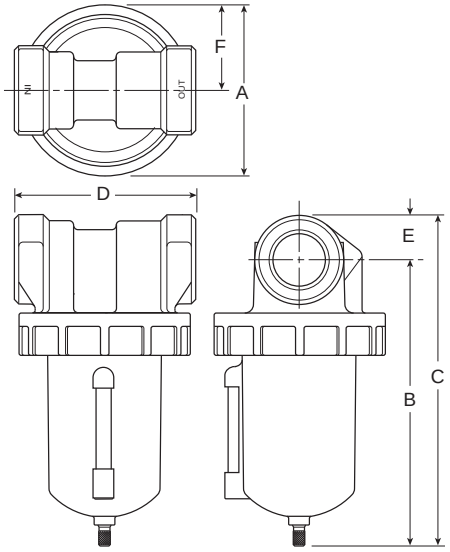
F602 Filters – Hi-Flow





Features

- Excellent water removal efficiency
- For heavy duty applications with minimum pressure drop requirement.
- Unique deflector plate that creates swirling of the air stream ensuring maximum water and dirt separation.
- Large filter element surface guarantees low pressure drop and increased element life.
- 40 micron filter element standard, 5 micron available.
- Metal bowl with sight gauge standard.
- Twist drain as standard, optional auto drain.
- Large bowl capacity.
- Optional high capacity bowl(s) available.
- High Flow: 1-1/4" – 390 SCFM§
  1-1/2" – 450 SCFM§



Port Size	NPT	
	Twist Drain	Internal Auto Drain
Metal Bowl / Sight Gauge - 16 oz.		
1-1/4"	**F602-10WJ**	**F602-10WJR**
1-1/2"	**F602-12WJ**	**F602-12WJR**
Metal Bowl without Sight Gauge - 32 oz.		
1-1/4"	F602-10EJ	F602-10EJR
1-1/2"	F602-12EJ	F602-12EJR

Standard part numbers shown bold.
For other models refer to ordering information below.

§ SCFM = Standard cubic feet per minute at 90 PSIG inlet and 5 PSIG pressure drop.

F602-10W, F602-12W Filter Dimensions					
A	**B**	**C**	**D**	**E**	**F**
4.90 (124)	8.18 (208)	9.46 (240)	5.19 (132)	1.28 (32.4)	2.45 (62)
F602-10E, F602-12E Filter Dimensions					
A	**B**	**C**	**D**	**E**	**F**
4.90 (124)	11.41 (290)	12.69 (322)	5.19 (132)	1.28 (32.4)	2.45 (62)

inches (mm)

Ordering Information

F	602	—	10	W	J	—	/**

Port Threads
- **— NPT**
- G BSPP

Port Size
- **10 1-1/4 Inch**
- **12 1-1/2 Inch**

Bowl
- E 32 oz. Large Capacity Metal without Sight Gauge
- **W 16 oz. Metal with Sight Gauge**

Element
- G 5 Micron
- **J 40 Micron**

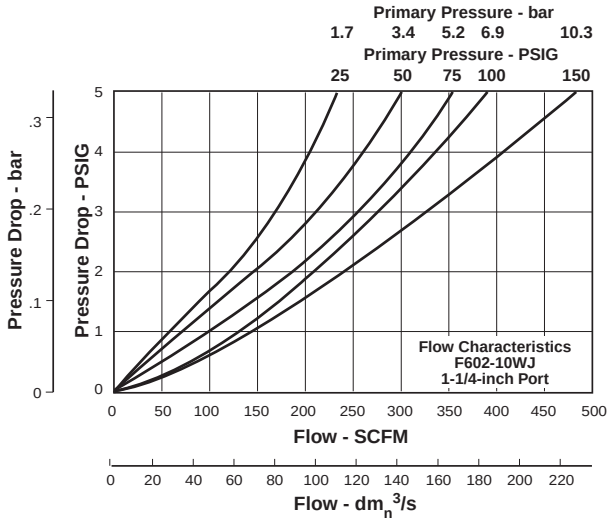
Drains and Options
- **Blank Manual Twist Drain**
- Q External Heavy Duty Auto Drain
- **R Internal Auto Drain**
- U Semi-Auto Drain

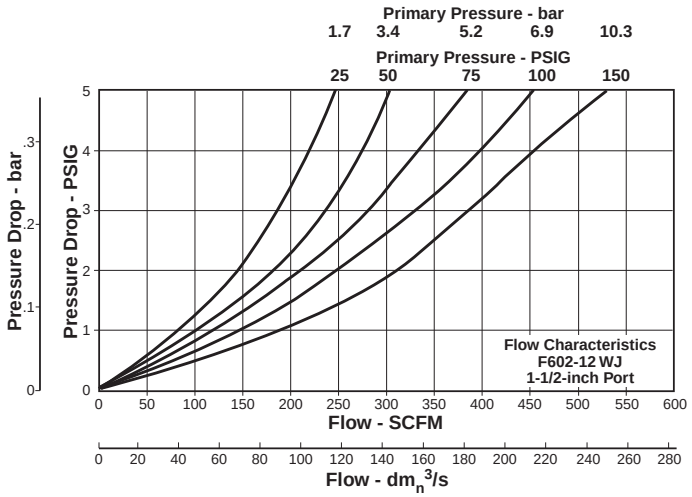
Engineering Level
- * Will be Entered at Factory.

BOLD ITEMS ARE MOST POPULAR.

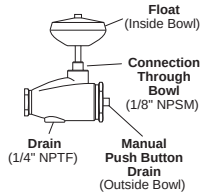
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Technical Information





"Q" Option External Heavy Duty Auto Drain SA602D / SA603D
For heavy duty applications where the filter is being used to remove large volumes of liquid and/or particulate matter from the airstream, the external automatic drain ("Q" option) should be used.



F602 Filter Kits & Accessories

Bowl Kits –
Aluminum (E) 32 oz. BK603B
Zinc with Sight Gauge (W) 16 oz. BK605WB

Drain Kits –
External Auto (E) 32 oz. SA603D
External Auto (W) 16 oz. SA602D
Internal Auto (All) SA602MD
Manual (All) SA600Y7-1
Semi-Automatic "Overnight" Drain SA602A7
(Drains automatically under zero pressure)

Filter Element Kits –
40 Micron (All) EK602B
5 Micron (All) EK602VB

Repair Kits –
Deflector, Baffle Assembly, and Retaining Rod (All) RK602C
External Auto Drain (All) RK602D
Internal Auto Drain (All) RK602MD
Metal Bowl with Sight Gauge (W) 16 oz. RKB605WB

Specifications

Bowl Capacity –
Aluminum (E) 32 oz. ..... 32 Ounces
Zinc (W) 16 oz. ..... 16 Ounces

Port Threads ..... 1-1/4, 1-1/2 Inch

( ) = Bowl Type

Pressure & Temperature Ratings –
Aluminum Bowl (E) 32 oz. – 0 to 300 PSIG (0 to 20.4 bar)
40°F to 150°F (4.4°C to 65.6°C)

Zinc (W) 16 oz. – 0 to 250 PSIG (0 to 17.2 bar)
40°F to 150°F (4.4°C to 65.6°C)

With Internal Auto Drain (R) – 20 to 175 PSIG (1.4 to 11.9 bar)
40°F to 125°F (4.4°C to 52°C)

With External Auto Drain (Q) – 0 to 250 PSIG (0 to 17.2 bar)
40°F to 150°F (4.4°C to 65.6°C)

Weight –
Aluminum Bowl (E) 32 oz. ..... 7.7 lb. (3.49 kg) / Unit
31 lb. (14.06 kg) / 4-Unit Master Pack

Zinc Bowl (W) 16 oz. ..... 7 lb. (3.18 kg) / Unit
28 lb. (12.70 kg) / 4-Unit Master Pack

Materials of Construction

Body ..... Zinc

Bowls –
(E) 32 oz. ..... Aluminum without Sight Gauge
(W) 16 oz. ..... Zinc with Sight Gauge

Drain –
Manual Twist & Overnight ..... Brass
Housing "R" ..... Acetal
Housing "Q" ..... Bronze

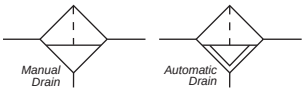
Filter Elements –
40 Micron (Standard) ..... Polypropylene
5 Micron (Optional) ..... Polypropylene

Seals ..... Nitrile

Sight Gauge ..... Nylon

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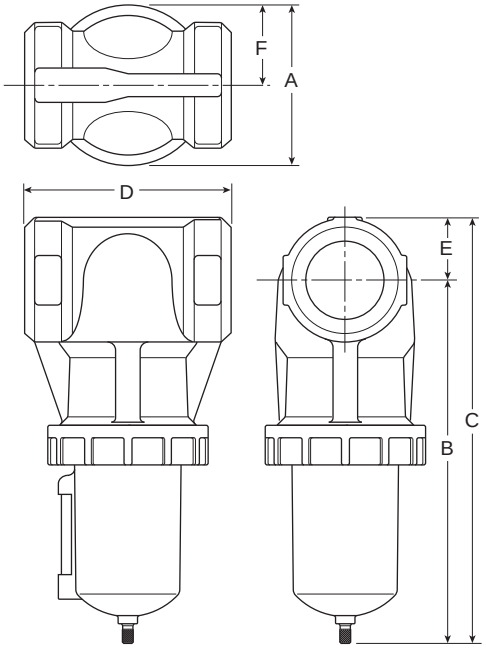
F602 Filters – Hi-Flow





Features

- Excellent water removal efficiency
- For heavy duty applications with minimum pressure drop requirement.
- Unique deflector plate that creates swirling of the air stream ensuring maximum water and dirt separation.
- Large filter element surface guarantees low pressure drop and increased element life.
- 40 micron filter element standard.
- Metal bowl with sight gauge standard.
- Twist drain as standard, optional auto drain.
- Large bowl capacity.
- Optional high capacity bowl(s) available.
- High Flow: 2 & 2-1/2" – 1200 SCFM§



Port Size	NPT	
	Twist Drain	Internal Auto Drain
Metal Bowl / Sight Gauge - 16 oz.		
2"	**F602-16WJ**	**F602-16WJR**
2-1/2"	**F602-20WJ**	**F602-20WJR**
Metal Bowl without Sight Gauge - 32 oz.		
2"	F602-16EJ	F602-16EJR
2-1/2"	F602-20EJ	F602-20EJR

Standard part numbers shown bold.
For other models refer to ordering information below.

§ SCFM = Standard cubic feet per minute at 90 PSIG inlet and 5 PSIG pressure drop.

F602-16W, F602-20W Filter Dimensions					
A	**B**	**C**	**D**	**E**	**F**
6.30 (160)	9.16 (233)	11.08 (281)	6.30 (160)	1.92 (48.7)	3.15 (80)
F602-16E, F602-20E Filter Dimensions					
A	**B**	**C**	**D**	**E**	**F**
6.30 (160)	12.44 (316)	14.36 (365)	6.30 (160)	1.92 (48.7)	3.15 (80)

inches (mm)

Ordering Information

F	602	—	16	W	J	—	/**

Port Threads
- **— NPT**
- G BSPP

Port Size
- **16 2 Inch**
- **20 2-1/2 Inch**

Bowl
- E 32 oz. Large Capacity Metal without Sight Gauge
- **W 16 oz. Metal with Sight Gauge**

Element
- **J 40 Micron**

Drains and Options
- **Blank Manual Twist Drain**
- Q External Heavy Duty Auto Drain
- **R Internal Auto Drain**
- U Semi-Auto Drain

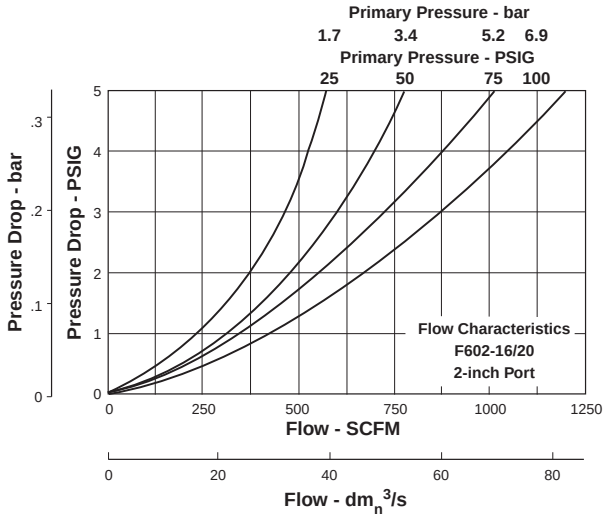
Engineering Level
- * Will be Entered at Factory.

BOLD ITEMS ARE MOST POPULAR.

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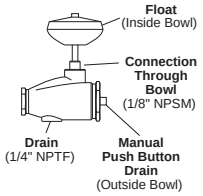
A

Technical Information



"Q" Option External Heavy Duty Auto Drain SA602D / SA603D

For heavy duty applications where the filter is being used to remove large volumes of liquid and/or particulate matter from the airstream, the external automatic drain ("Q" option) should be used.



F602 Filter Kits & Accessories

Bowl Kits –
- Aluminum (E) 32 oz. BK603B
- Zinc with Sight Gauge (W) 16 oz. BK605WB

Drain Kits –
- External Auto (E) 32 oz..... SA603D
- External Auto (W) 16 oz. SA602D
- Internal Auto (All) SA602MD
- Manual (All) SA600Y7-1
- Semi-Automatic "Overnight" Drain SA602A7
  (Drains automatically under zero pressure)

Filter Element Kits –
- 40 Micron (All) EK602B

Repair Kits –
- Deflector, Baffle Assembly, and Retaining Rod (All) RK602C
- External Auto Drain (All) RK602D
- Internal Auto Drain (All) RK602MD
- Metal Bowl with Sight Gauge (W) 16 oz. RKB605WB

Specifications

Bowl Capacity –
- Aluminum (E) 32 oz. ..... 32 Ounces
- Zinc (W) 16 oz. ..... 16 Ounces

Port Threads ..... 2, 2-1/2 Inch

( ) = Bowl Type

Pressure & Temperature Ratings –

Aluminum Bowl (E) 32 oz. – 0 to 300 PSIG (0 to 20.4 bar)
40°F to 150°F (4.4°C to 65.6°C)

Zinc (W) 16 oz. – 0 to 250 PSIG (0 to 17.2 bar)
40°F to 150°F (4.4°C to 65.6°C)

With Internal Auto Drain (R) – 20 to 175 PSIG (1.4 to 11.9 bar)
40°F to 125°F (4.4°C to 52°C)

With External Auto Drain (Q) – 0 to 250 PSIG (0 to 17.2 bar)
40°F to 150°F (4.4°C to 65.6°C)

Weight –
- Aluminum Bowl (E) 32 oz. ..... 10.3 lb. (4.67 kg) / Unit
  11 lb. (4.99 kg) / 1-Unit Master Pack
- Zinc Bowl (W) 16 oz. ..... 9.8 lb. (4.45 kg) / Unit
  39 lb. (17.69 kg) / 4-Unit Master Pack

Materials of Construction

Body ..... Aluminum

Bowls –
- (E) 32 oz. ..... Aluminum without Sight Gauge
- (W) 16 oz. ..... Zinc with Sight Gauge

Drain –
- Manual Twist & Overnight ..... Brass
- Housing "R" ..... Acetal
- Housing "Q" ..... Bronze

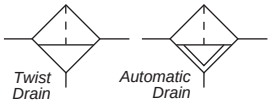
Filter Elements –
- 40 Micron (Standard) ..... Polypropylene

Seals ..... Buna N

Sight Gauge ..... Nylon

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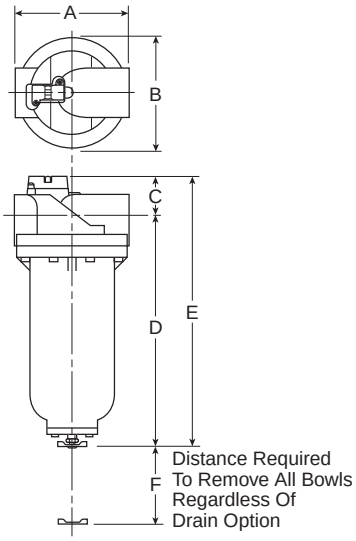
09F Filters – Hi-Flow





Features

- Metal bowl standard.
- 5 micron element.
- Large capacity bowl.
- Standard differential pressure indicator.
- High Flow: 2" – 1000 SCFM§



Port Size	NPT	
	Twist Drain	Automatic Float Drain
2"	**09F83B***	**09F87B***

Standard part numbers shown bold.
For other models refer to ordering information below.

§ SCFM = Standard cubic feet per minute at 90 PSIG inlet and 5 PSIG pressure drop.

09F Filter Dimensions		
A 7.80 (198)	**B** 7.75 (197)	**C** 2.83 (72)
D† 16.24 (412)	**E†** 19.07 (484)	**F** 4.92 (125)

Inches (mm)

† With Twist Drain or Automatic Float Drain

Ordering Information

09F	8	3	B	*

Port Size
8 2 Inch

Bowl Options
3 Metal / Twist Drain
7 Metal / Automatic Float Drain

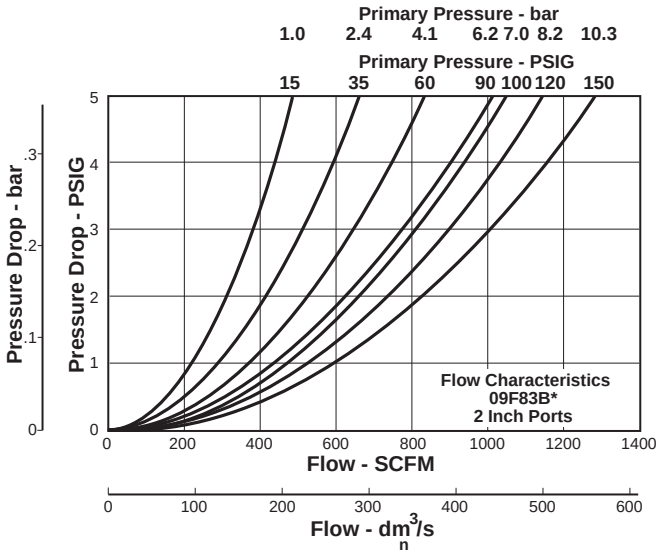
Elements
B 5 Micron

Engineering Level
* Will be Entered at Factory.

BOLD ITEMS ARE MOST POPULAR.

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Technical Information



09F Filter Kits & Accessories

Differential Pressure Indicator PS619P

Drain Kits –
Automatic Float Drain PS620P
Twist Drain PS625P

Filter Element Kit – 5 Micron Element..... PS618P

Specifications

Bowl Capacity ..... 117 Ounces

Sump Capacity.....12.5 Ounces

Port Threads ..... 2 Inch

Pressure & Temperature Ratings ..... 150 PSIG at 150°F (10.3 bar at 66°C)

Weight ..... 19.3 lb. (8.7 kg)

Materials of Construction

Body ..... Aluminum

Bowls ..... Metal

Deflector ..... Steel

Drains –
Twist Drain ..... Brass Petcock
Automatic Float Drain –
Housing, Float.....Plastic
Seals ..... Buna N
Springs, Push Rod..... Stainless Steel

Filter Element.....Plastic

Seals .....Fluorocarbon

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Coalescing Filters

- Pipe Sizes 1/8 thru 3 Inch
- Flows to 1660 SCFM
- Pressures to 250 PSIG

Coalescing filters are designed to remove 99.9% + of the liquid aerosols, both water and oil, and submicron particulate matter from your pneumatic system. These filters will provide oil free air for applications such as spray painting, air gauging, pneumatic instrumentation, printing and packaging.

- Miniature 02F Series, 1/4 Inch I.D.
- Miniature 10F Series, 1/8 and 1/4 Inch
- Miniature P3A-FA Series, 1/8 and 1/4 Inch
- Economy 15F Series, 1/4 and 3/8 Inch
- Compact 11F Series, 1/4, 3/8 and 1/2 Inch
- Standard 12F Series, 3/8, 1/2 and 3/4 Inch
- High Flow P3NF Series, 3/4, 1 and 1-1/2 Inch
- High Flow F701 Series, 3/4 & 1 Inch
- Main Line 30F Series, 1-1/2 thru 3 Inch
- Inline Desiccant Dryers DD Series, 1/4 thru 1 Inch

Filter Selection

1. Determine flow and pressure requirements.
2. Refer to Flow Chart and select the proper filter to match your flow and pressure needs.

Media Specifications

Grade	Coalescing Efficiency 0.3 to 0.6 Micron Particles	Maximum Oil Carryover[1] PPM w/w	Micron Rating	Pressure Drop (PSID)[2] @ Rated Flow	
				Media Dry	Media Wet With 10-20 wt. oil
6	99.97%	0.008	0.01	1.0	2-3
10	95%	0.85	1.0	0.5	0.5

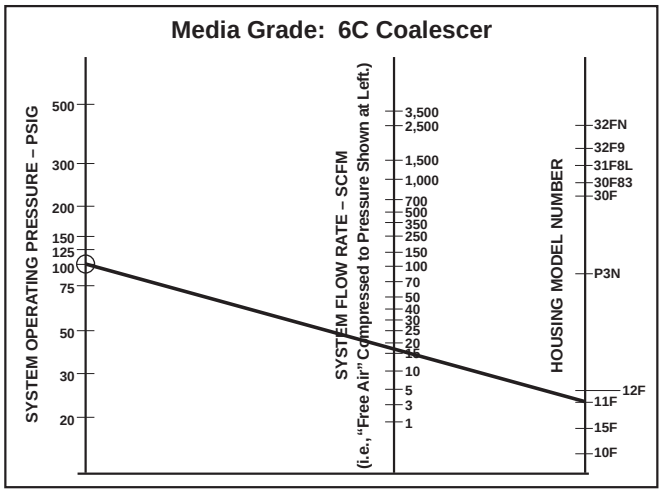
[1] Tested per BCAS 860900 at 40 ppm inlet.
[2] Add dry + wet for total pressure drop.
D.O.P. = Dioctylphthalate

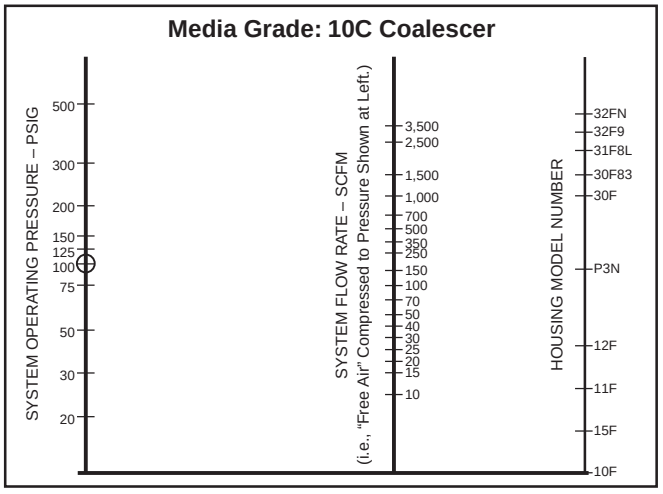
Element Selection

Element Grade	Applications
6 (.01 Micron)	General air coalescing applications when total removal of liquid aerosols and suspended fines is required in all pressure ranges. Protection of air dryers, air gauging, air logic, modulating systems, critical air conveying, most breathing air systems, etc.
10 (.7 Micron)	Precoalescer or prefilter for Grade 6 to remove gross amounts of water and oil, or tenacious aerosols which are difficult to remove. Upgrading existing particulate equipment to coalescing without increase in pressure drop.

Reading Nomograms for Coalescing Filters

To size a coalescer, refer to the nomograms below. First determine the system pressure and find that pressure on the vertical axis on the left. Next, find the required flow rate on the middle vertical axis. Draw a connecting line between the two points extending to the middle vertical axis giving the recommended coalescer series. If the intersection on the model number axis is between models then choose the model above the intersection point insuring the proper flow in the unit.





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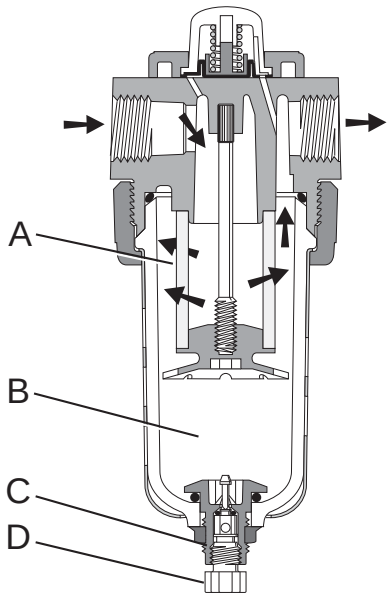
Coalescing Filters
(Oil Removal)

Specifically designed for the removal of solid particles, water and oil aerosols down to 0.01 micron. Maximum remaining oil content of air leaving the filter down to 0.01ppm at 70°F (21°C) at a pressure of 100 PSIG (6.9 bar) using a typical compressor lubricant. Two filter element grades are offered to better meet your air quality requirements.

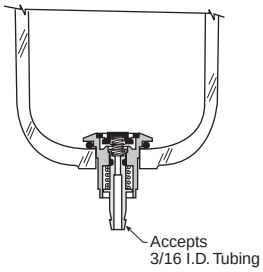
Grade 10 filter elements are used for most air coalescing applications where the removal of liquid aerosols and submicronic particles for general air quality is required. Protection of components such as air valves, cylinders, as well as air conveyors, air gaging, air bearings, air control circuits and paint spraying equipment are examples of specific end-use applications. This grade of filter element should be used as a prefilter for the Grade C coalescing filter.

Grade 6 high-efficiency filter elements are used where the removal of extremely fine particulate and virtually “oil-free” or high quality air is necessary. Specific end-use applications are protection of critical air control circuits, air logic systems, flow and temperature controllers, food processing, electronics, health care and film processing.

The contaminated air enters the element interior and is forced through a thick membrane of borosilicate glass fibers coated with epoxy (**A**). Flow then passes through an outer structural support and, at this stage, has removed up to 99.97% + of the sub-micron particles evident in the contaminated air. These tiny droplets coalesce together and are blotted from the filter surface by the drain and release layers of non-woven glass felt and rayon cloth. The drops now begin a gravitational passage to the filter sump (**B**) where they can be manually or automatically drained. The clean, filtered air now passes through the outer screen plastic net and out into the pneumatic system. The Air Line Coalescing Filter removes liquid aerosols and sub-micron particulate matter. Collected liquids and particles in the “quiet zone” should be drained before their level reaches a height where they would be reentrained in the flowing air. This can be accomplished by the manual drain (**C**) which is actuated by twisting knob (**D**) counterclockwise. On the 30 Series, unscrew the drain valve (**E**) slightly until the liquid begins to drain.



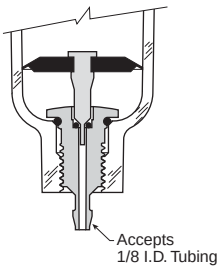
Semi Automatic Drain



(Overnight Drain)

This drain offers a semi-automatic function when there is a differential pressure in the filter which occurs when system pressure is shut off. The drain can also be used manually by gripping it with your fingertips and pushing upward.

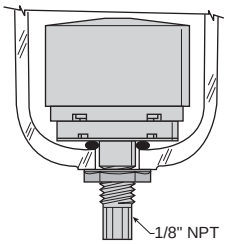
Automatic Pulse Drain



(Spitter Drain)

The diaphragm in this drain pulses when there is a pressure differential such as a valve cycling or cylinder stroking downstream. This action flexes the diaphragm and allows the filter to drain the entrapped water.

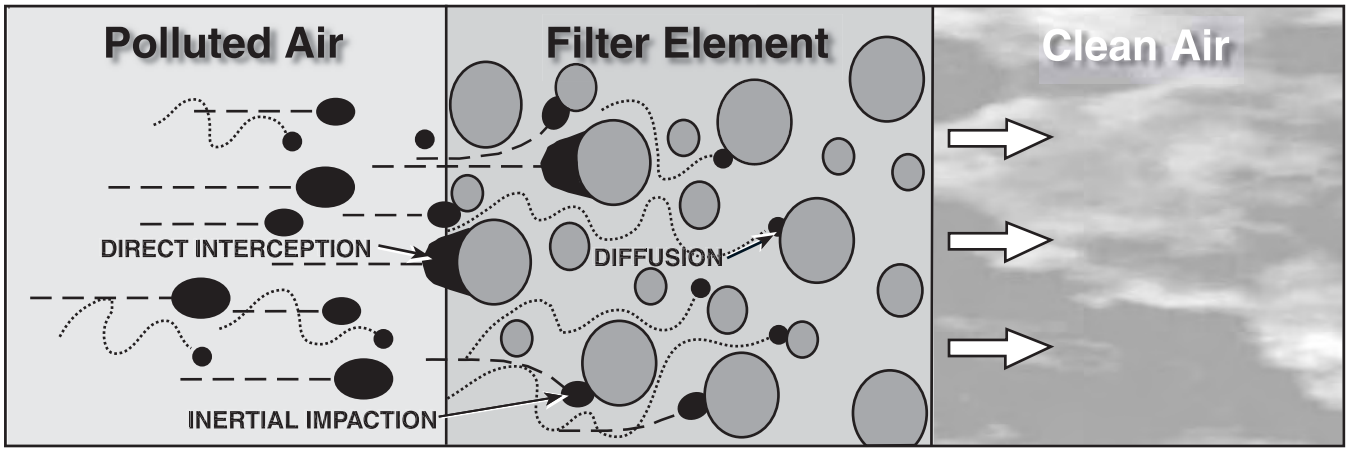
Automatic Float Drain



The float internal to this drain rises with increased liquid level. When the float rises, it opens a seat area allowing the trapped liquids to drain through the bottom.
A manual override can be pushed in the bottom of the drain to unseat the float if particulates create a block.

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Filter Technology – Mechanisms of Filtration



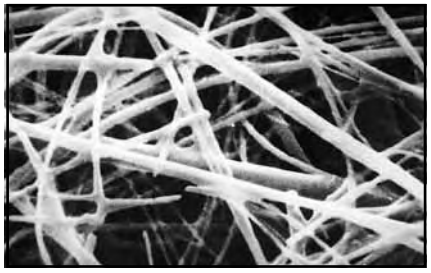
Coalescing Filters

Essentially, coalescing filters Grade 10 (.7 micron) & 6 (.01 micron), rely on what is known as mechanical filtration for their effectiveness. The main mechanisms of mechanical filtration are direct interception, inertial impaction and diffusion. Electrostatic attraction can have some bearing although the efficiency of coalescing filters is not dependent on this mechanism.

Direct Interception occurs when a particle collides with and adheres to a fiber of the filter material without deviating out of the streamline flow. This mechanism tends to take place on the surface of the filter material and affects mainly larger particles over 1 micron in size.

Inertial Impaction occurs when a particle is unable to follow the tortuous path around the filter fibers and eventually collides with and adheres to one of the fibers. Typically affecting particles in the 0.3 micron -1 micron size range.

Diffusion or Brownian Movement, as it is sometimes called, occurs with extremely small particles which tend to wander within the gas stream, increasing their chances of colliding with and adhering to a fiber. This usually affects particles below 0.3 micron in size. A degree of overlap takes place with the mechanisms, the extent varying on the conditions.

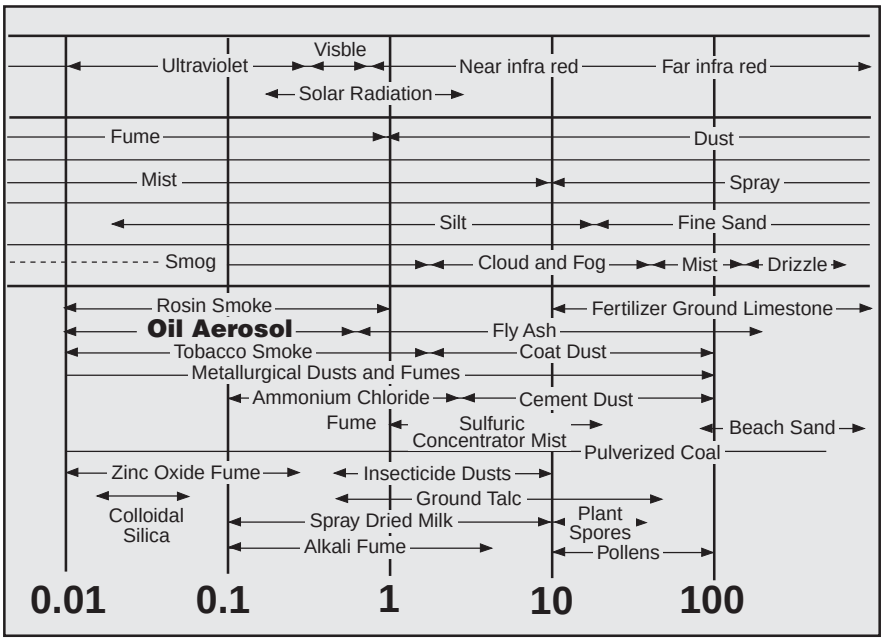


Above: Clean borosilicate microfiber seen at a magnification factor of 3900. *Right:* The same filter material in a contaminated state at the same degree of magnification.



When all mechanisms are combined and utilized by a deep bed of the correct type of filter material, removal of virtually all particles whether liquid or solid, is achieved.

Pollution Size Chart



To assist in understanding the parameters of filtration, refer to this pollution size comparison chart. Look at the size of a major contaminant, oil aerosol! It is in the region of 0.01 - 0.8 micron. Tobacco smoke is also a liquid aerosol in a similar size band 0.01 -1.2 micron. Observe the smoke test yourself, appreciate the size of the problem! The smallest particle the human eye can see is in the order of 40 microns.

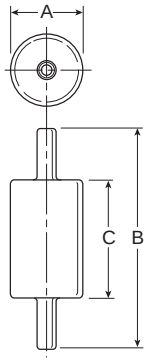
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02F Coalescing Filters – Miniature



Features

- Clear nylon housing.
- Full length support tube.
- Positive tube seals.
- Optional filter grades available.
- Disposable.
- High Flow: Grade 6 – 3.5 SCFM§
  Grade 10 – 5.3 SCFM§



Application

The 02F Miniature Inline Filter is designed to remove 99.9%+ of the aerosols and sub-micron particles from your air system.

Port Size	Model	Element
1/4" I.D.	**02FA06A**	Grade 6
	02FA10A	Grade 10
	02FA22A	Grade 6 (oil activated dye)

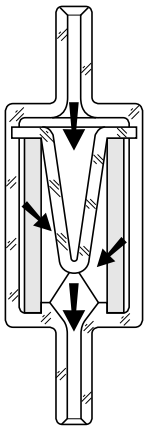
§ SCFM @ 1 PSID Operating Pressure 100 PSIG.

02F Coalescing Filter Dimensions		
A	**B**	**C**
1.00 (25)	3.28 (83)	1.69 (43)

Inches (mm)

Operation

The contaminated air enters the filters interior and is forced through the elements membrane of Borosilicate glass fibers. Contaminants and aerosols are collected and distributed evenly along the entire tubes length. This is accomplished by the use of the “center post” which not only provides this “drop out pocket”, but also provides a stable support.



Ordering Information

02F	A	06	A

Port Size
A Standard

Elements
06 Grade 6
10 Grade 10
22 Grade 6 oil activated dye

Engineering Level
A Current

Specifications

Port Size ..... 1/4 I.D. Hose Slip On Tang Standard
Pressure & Temperature Ratings –
100 PSIG at 125°F (0.69 bar at 52°C) or less

Materials of Construction

Element ..... Borosilicate & Felt Glass Fibers
Housing ..... Nylon

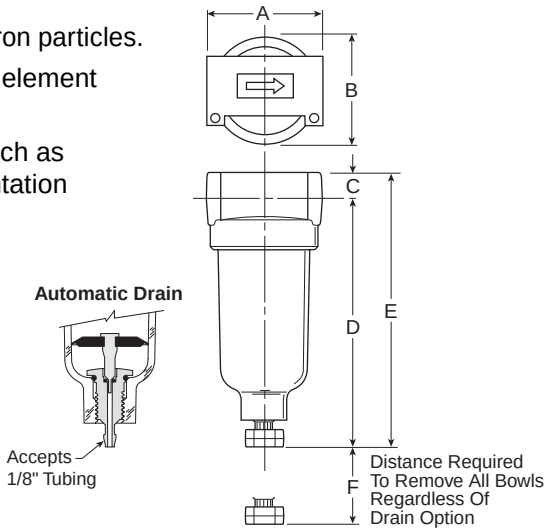
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10F Coalescing Filters – Miniature



Features

- Removes liquid aerosols and sub-micron particles.
- Liquids gravitate to the bottom of the element and will not re-enter the airstream.
- Oil free air for critical applications, such as air gauging and pneumatic instrumentation and controls.
- Interchangeable twist and automatic pulse drains.
- Grade 6 element, 99.97% DOP efficiency.
- High Flow: Grade 6 Element
  1/8" – 17 SCFM§
  1/4" – 20 SCFM§
  Grade 10 Element
  1/8" – 19 SCFM§
  1/4" – 24 SCFM§



Port Size	NPT	
	Twist Drain	Automatic Pulse Drain
Poly Bowl ‡		
1/8"	**10F01E***	**10F05E***
1/4"	**10F11E***	**10F15E***
Metal Bowl without Sight Gauge		
1/8"	**10F03E***	**10F07E***
1/4"	**10F13E***	**10F17E***

Standard part numbers shown bold, with Grade 6 Elements (for Grade 10 Elements, replace "E" with "H" in the 6th position). For other models refer to ordering information below.

‡ For polycarbonate bowl see Caution on page A2.

§ SCFM = Standard cubic feet per minute at 90 PSIG inlet and 5 PSIG pressure drop.

10F Coalescing Filter Dimensions		
A 1.69 (43)	**B** 1.56 (39,6)	**C** 0.39 (10)
D 3.82 (97)	**D†** 3.67 (93)	**E** 4.21 (107)
E† 4.06 (103)	**F** 1.60 (41)	

Inches (mm)

† With Automatic Pulse Drain.

Ordering Information

10F	1	1	E	*	—

Port Size
0 1/8 Inch
1 1/4 Inch

Bowl Options
Polycarbonate Bowl
1 Twist Drain
5 Automatic Pulse Drain
Metal Bowl
3 Twist Drain
7 Automatic Pulse Drain

Elements
E Grade 6
H Grade 10

Engineering Level
* Will be Entered at Factory

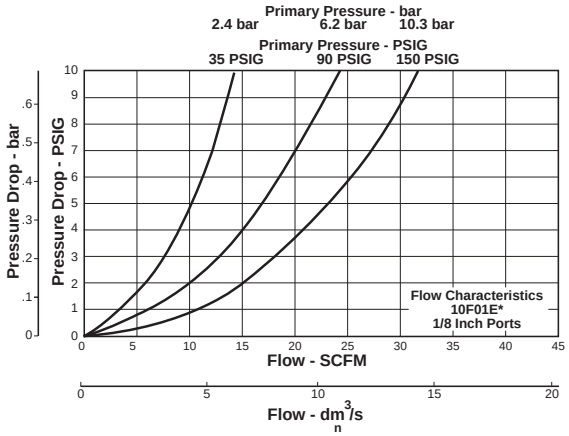
Port Type	
Blank	**NPT**
1	BSPP
2	BSPT

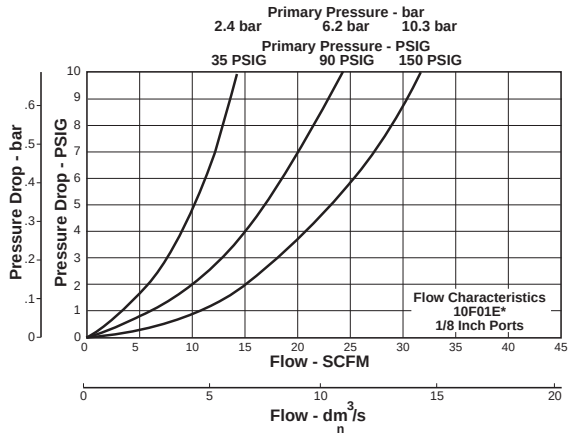
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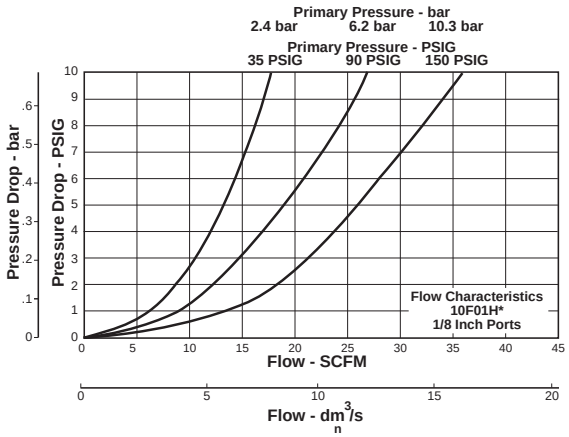
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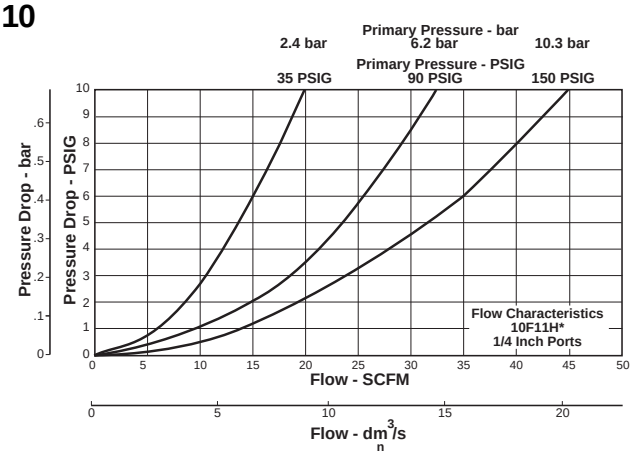
Grade 6





Grade 10





10F Coalescing Filter Kits & Accessories

Bowl Kits –
Poly Bowl – Automatic Pulse Drain PS408BP
Twist Drain PS404P
Metal Bowl – Automatic Pulse Drain PS451BP
Twist Drain PS447BP

Filter Element Kits – Grade 6 (Standard) PS446P
Grade 10 (Optional) PS456P

Mounting Bracket Kit PS417BP

Specifications

Automatic Pulse Drain Tube Barb ..... 1/8 Inch

Bowl Capacity ..... 1 Ounce

Operation –
Normal Operating Pressure Drop ..... 2 PSIG
Maximum Recommended Pressure Drop ..... 10 PSIG
(Element should be replaced)

Port Threads ..... 1/8, 1/4 Inch

Pressure & Temperature Ratings –
Polycarbonate Bowl ..... 0 to 150 PSIG (0 to 10.3 bar)
32°F to 125°F (0°C to 52°C)
Metal Bowl ..... 0 to 250 PSIG (0 to 17.2 bar)
32°F to 175°F (0°C to 80°C)
Automatic Pulse Drain ..... 10 to 250 PSIG (0.7 to 17.2 bar)
at 125°F (52°C) or less

Weight ..... 0.41 lb. (0.18 kg)

Materials of Construction

Body ..... Zinc

Bowls ..... Transparent Polycarbonate
Metal (Zinc) Without Sight Gauge

Drains – Twist Drain –
Body & Stem ..... Plastic
Seals ..... Nitrile
Automatic Pulse Drain –
Piston & Seals ..... Nitrile
Stem, Seat, Adaptor & Washers ..... Aluminum

Element Holder ..... Plastic

Filter Element –
Borosilicate & felt glass fibers 99.97% DOP efficiency
Largest Aerosol Particle Passed (Grade 6) ..... 0.01 Micron
Largest Solid Particle Passed (Grade 6) ..... 0.30 Micron

Seals ..... Nitrile

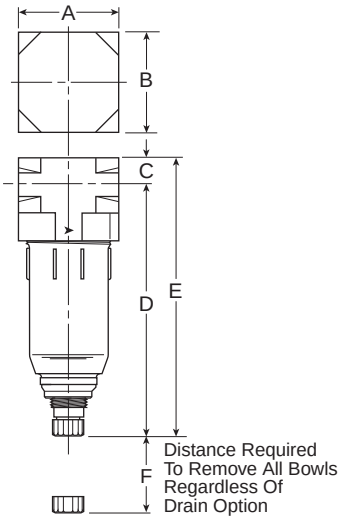
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P3AF Coalescing Filters



Features

- Lightweight Plastic Body
- Removes liquid aerosols and sub-micron particles.
- Liquids gravitate to the bottom of the element and will not re-enter the air stream.
- Oil free air for critical applications, such as air gauging and pneumatic instrumentation and controls.
- Grade 6 element, 99.97% DOP efficiency.
- Fingertip operated drain, automatic drain optional.
- Easily disassembled for servicing without the use of tools.
- High Flow: 1/8" – 20 SCFM§
  1/4" – 32 SCFM§



Port Size	NPT	
	Twist Drain	Auto Pulse Drain
1/8"	**P3A-FA91BCNP**	**P3A-FA91CCNP**
1/4"	**P3A-FA92BCNP**	**P3A-FA92CCNP**

Standard part numbers shown bold, with Grade 6 Elements.

‡ For polycarbonate bowl see Caution on page A2.

§ SCFM = Standard cubic feet per minute at 90 PSIG inlet and 5 PSIG pressure drop.

P3AF Coalescing Filter Dimensions		
A 1.57 (40)	**B** 1.57 (40)	**C** 0.43 (11)
D 3.98 (101)	**D†** 3.70 (94)	**E** 4.41 (112)
E† 4.13 105)	**F** 2.00 (51)	

Inches (mm)

† With Pulse Drain

Ordering Information

P3A-FA	9	1	B	C	N	P

Port Type	Port Size	Bowl / Drain	Element	Options	Bowl Material
9 NPT Female	**1 1/8 Inch** **2 1/4 Inch**	Polycarbonate Bowl **B Twist Drain** **C Auto Pulse Drain**	**C Grade 6**	**N None**	**P Polycarbonate**

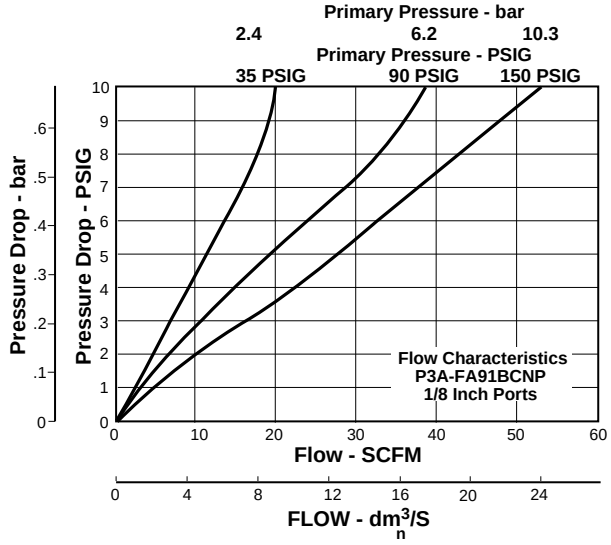
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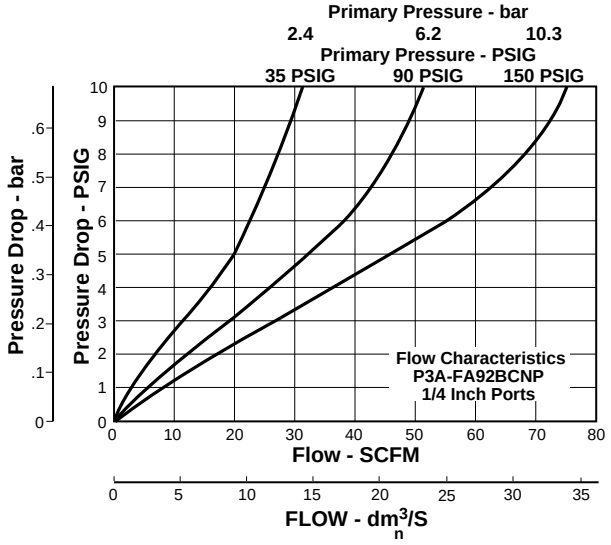
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Technical Information

A

Grade 6





P3AF Coalescing Filter Kits and Accessories

Elements –
Grade 6 Coalescer Element PS467P

Plastic Bowls –
Bowl with Manual Drain P3A-KA00BBP
Bowl with Auto Pulse Drain P3A-KA00BCP

Service Kit P3A-KA00RFN

Wall Mount Kit P3A-KA00CFN

Specifications

Bowl Capacity ..... 0.9 Ounce

Sump Capacity ..... 0.24 Ounce

Operation –
Normal Operating Pressure Drop ..... 2 PSIG
Maximum Recommended Pressure Drop ..... 10 PSIG
(Element should be replaced).

Operating Pressure Range	**PSIG**	**bar**
Maximum	120	8.3

Operating Temperature Range ..... 32°F to 125°F (0°C to 52°C)

Port Threads ..... 1/8, 1/4 Inch

Weight ..... 0.18 lb. (0.08 kg)

Materials of Construction

Body ..... Plastic

Bowl ..... Transparent Polycarbonate

Drains – Twist Drain –
Body & Stem ..... Plastic
Seals ..... Nitrile

Auto (Pulse) –
Piston & Seals ..... Nitrile
Stem, Seat, Adaptor & Washers ..... Aluminum

Filter Element –
Borosilicate & felt glass fibers 99.97% DOP efficiency
Largest Aerosol Particle Passed (Grade 6) ..... 0.01 Micron
Largest Solid Particle Passed (Grade 6) ..... 0.30 Micron

Port Inserts ..... Brass

Seals ..... Nitrile

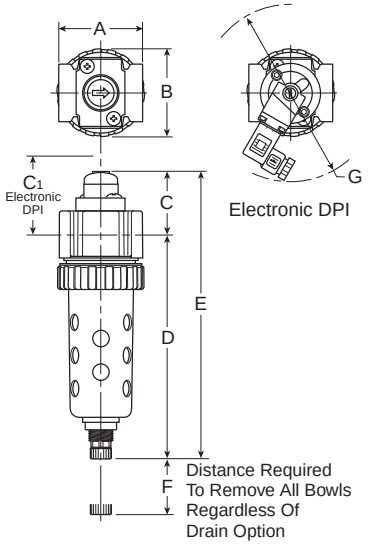
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15F Coalescing Filters – Economy



Features

- Removes liquid aerosols and sub-micron particles.
- Liquids gravitate to the bottom of the element and will not re-enter the airstream.
- Oil free air for critical applications, such as air gauging and pneumatic instrumentation and controls.
- Interchangeable twist and automatic pulse drains.
- Pressure differential indicator standard.
- High Flow: Grade 6 Element 1/4" – 30 SCFM § 3/8" – 30 SCFM § Grade 10 Element 1/4" – 51 SCFM§ 3/8" – 66 SCFM§

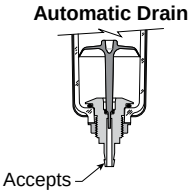


Port Size	NPT	
	Twist Drain	Automatic Pulse Drain
Poly Bowl‡ / Metal Guard		
1/4"	**15F12E***	**15F1PE***
3/8"	**15F22E***	**15F2PE***
Metal Bowl / Sight Gauge		
1/4"	**15F14E***	**15F1TE***
3/8"	**15F24E***	**15F2TE***

Standard part numbers shown bold, with Grade 6 Elements (for Grade 10 Elements, replace "E" with "H" in the 6th position). For other models refer to ordering information below.

‡ For polycarbonate bowl see Caution on page A2.

§ SCFM = Standard cubic feet per minute at 90 PSIG inlet and 5 PSIG pressure drop.



15F Coalescing Filter Dimensions		
A 2.00 (51)	**B** 2.06 (52)	**C** 1.50 (38)
C1 1.86 (47)	**D** † 5.35 (136)	**E** † 6.85 (174)
F 1.77 (45)	**G Dia.** 4.50 (114)	

Inches (mm)

† With Twist Drain or Automatic Float Drain

Ordering Information

15F	1	2	E	*	—	—

Port Size
- **1 1/4 Inch**
- **2 3/8 Inch**

Bowl Options

Polycarbonate Bowl	Metal Bowl
1 Twist Drain	3 Twist Drain
2 Metal Bowl Guard / Twist Drain	**4 Sight Gauge / Twist Drain**
N Auto Pulse Drain	R Auto Pulse Drain
P Metal Bowl Guard / Auto Pulse Drain	**T Sight Gauge / Auto Pulse Drain**

Elements
- **E Grade 6**
- H Grade 10

Engineering Level
- * Will be Entered at Factory

Port Type
- **Blank NPT**
- 1* BSPP
- 2 BSPT

* 1/4 & 3/8 inch meet ISO 1179-1 Standard.

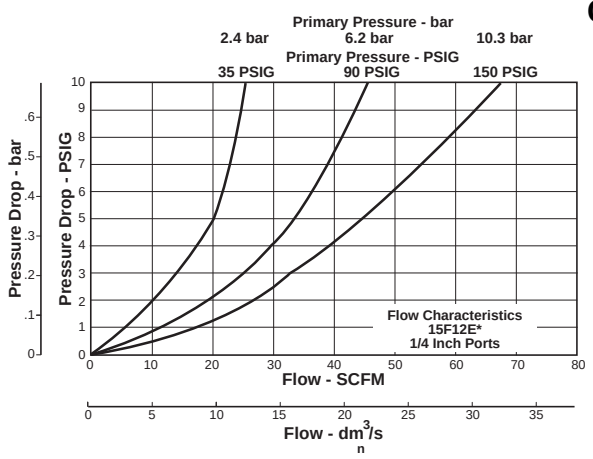
Options
- **Blank With Differential Pressure Indicator**
- N Without Differential Pressure Indicator
- R With Electronic DPI

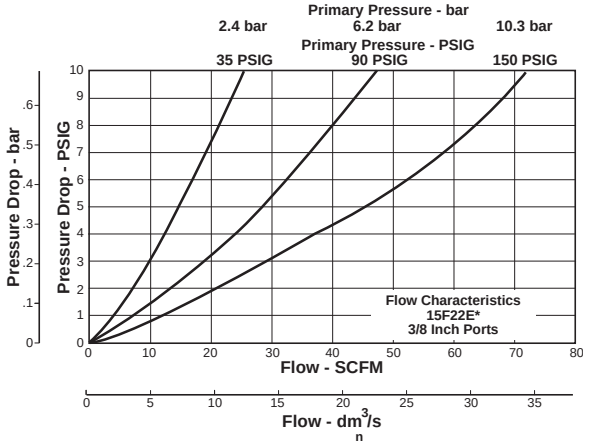
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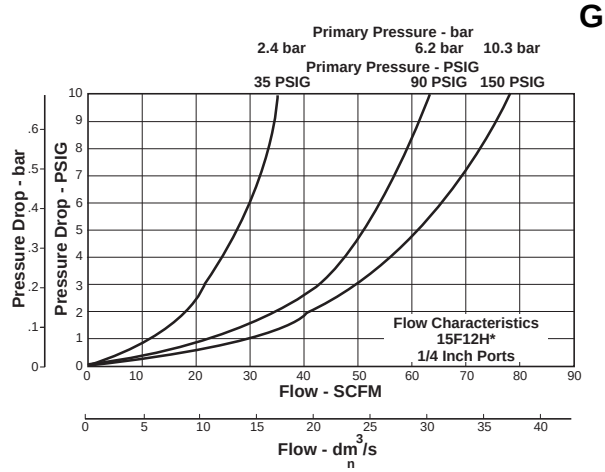
Technical Information

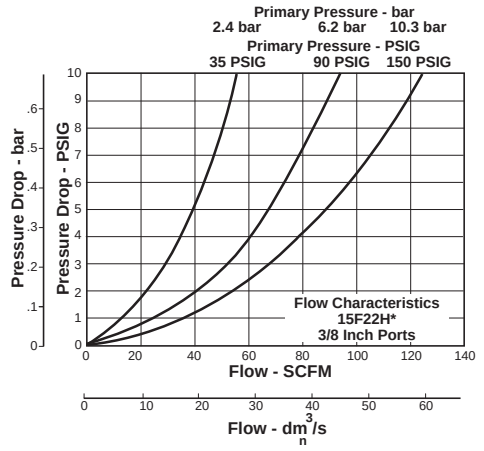
Grade 6





Grade 10





15F Coalescing Filter Kits & Accessories

Bowl Guard Kit PS905P

Bowl Kits –

Poly Bowl – Automatic Pulse Drain PS995P
Twist Drain PS932P

Metal Bowl – Automatic Pulse Drain PS997P
Twist Drain PS934P
Sight Gauge / Automatic Pulse Drain PS996P
Sight Gauge / Twist Drain PS935P

DPI Replacement Kit PS781P

Electronic DPI Replacement Kit PS764

Drain Kit – Automatic Pulse Drain PS998P
Semi-Auto Drain PS511P
Twist Drain PS512P
Push 'N' Drain PS513P

Electrical Connector - 15mm, 3-Pin DIN, 6 Ft. Cord PS2932JBP

Filter Element Kits – Grade 6 (Standard) PS924P
Grade 10 (Optional) PS930P

Mounting Bracket Kit PS943P

Sight Gauge Kit PS914P

Specifications

Bowl Capacity ..... 2.0 Ounces

Sump Capacity ..... 0.9 Ounce

Port Threads ..... 1/4, 3/8 Inch

Pressure & Temperature Ratings –

Without Differential Pressure Indicator:
Polycarbonate Bowl – 0 to 150 PSIG (0 to 10.3 bar)
32°F to 125°F (0°C to 52°C)
Metal Bowl – 0 to 250 PSIG (0 to 17.2 bar)
32°F to 175°F (0°C to 80°C)
With Differential Pressure Indicator: 0 to 150 PSIG (0 to 10.3 bar)
32°F to 125°F (0°C to 52°C)

Weight ..... 1.2 lb. (0.54 kg)

Materials of Construction

Body ..... Zinc

Bowls ..... Transparent Polycarbonate
Metal (Zinc) Without Sight Gauge

Bowl Guards ..... Steel

Collar ..... Plastic

Drain ..... Plastic

Filter Element –

Borosilicate & felt glass fibers 99.97% DOP efficiency
Largest Aerosol Particle Passed (Grade 6) ..... 0.01 Micron
Largest Solid Particle Passed (Grade 6) ..... 0.30 Micron

Seals ..... Nitrile

Sight Gauge, DPI ..... Polyamide (Nylon)

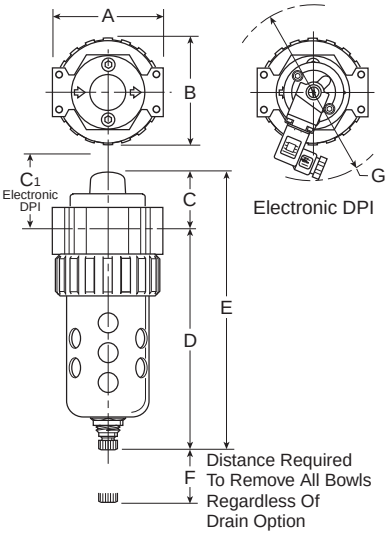
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11F Coalescing Filters – Compact



Features

- Removes liquid aerosols and sub-micron particles.
- Liquids gravitate to the bottom of the element and will not re-enter the airstream.
- Oil free air for critical applications, such as air gauging and pneumatic instrumentation and controls.
- Interchangeable twist and automatic float drains.
- Pressure differential indicator standard.
- Shown with recommended metal bowl guard.
- High Flow: Grade 6 Element / Grade 10 Element
  - 1/4" – 45 SCFM§ / 1/4" – 60 SCFM§
  - 3/8" – 48 SCFM§ / 3/8" – 72 SCFM§
  - 1/2" – 65 SCFM§ / 1/2" – 95 SCFM§



Port Size	NPT	
	Twist Drain	Automatic Float Drain
Poly Bowl ‡ / Metal Guard		
1/4"	**11F12E***	**11F16E***
3/8"	**11F22E***	**11F26E***
1/2"	**11F32E***	**11F36E***
Metal Bowl / Sight Gauge		
1/4"	**11F14E***	**11F18E***
3/8"	**11F24E***	**11F28E***
1/2"	**11F34E***	**11F38E***

Standard part numbers shown bold, with Grade 6 Elements (for Grade 10 Elements, replace "E" with "H" in the 6th position). For other models refer to ordering information below.

‡ For polycarbonate bowl see Caution on page A2.

§ SCFM = Standard cubic feet per minute at 90 PSIG inlet and 5 PSIG pressure drop.

11F Coalescing Filter Dimensions		
A 2.81 (71)	**B** 2.74 (70)	**C** 1.46 (37)
C_1 1.81 (46)	**D** 5.69 (145)	**D** † 5.74 (146)
E 7.15 (182)	**E** † 7.20 (183)	**F** 2.25 (57)
G Dia. 4.50 (114)		

Inches (mm)

† With Automatic Float Drain

Ordering Information

11F	1	2	E	*	—	—

Port Size
- **1 1/4 Inch**
- **2 3/8 Inch**
- **3 1/2 Inch**

Bowl Options

Polycarbonate Bowl	Metal Bowl
1 Twist Drain	3 Twist Drain
2 Metal Bowl Guard / Twist Drain	**4 Sight Gauge / Twist Drain**
5 Auto Float Drain	7 Auto Float Drain
6 Metal Bowl Guard / Auto Float Drain	**8 Sight Gauge / Auto Float Drain**

Elements
- **E Grade 6**
- H Grade 10

Engineering Level
- * Will be Entered at Factory

Options
- **Blank With Differential Pressure Indicator**
- N Without Differential Pressure Indicator
- R With Electronic DPI

Port Type

Blank	NPT
1*	BSPP
2	BSPT

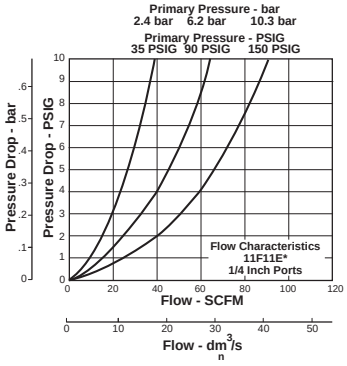
* 1/4 & 3/8 inch meet ISO 1179-1 Standard.

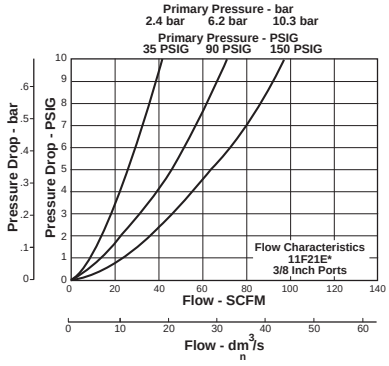
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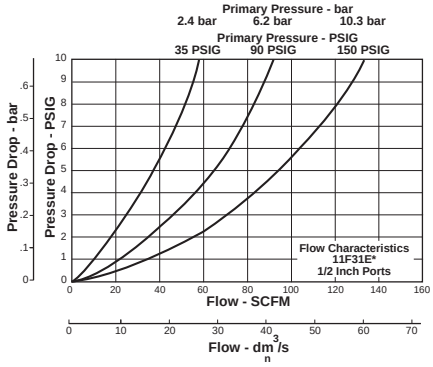
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Technical Information

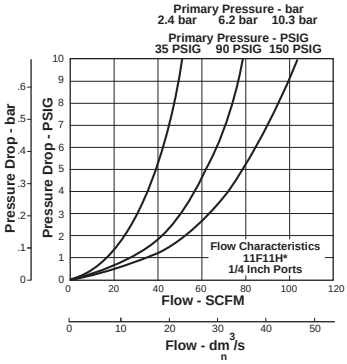
Grade 6

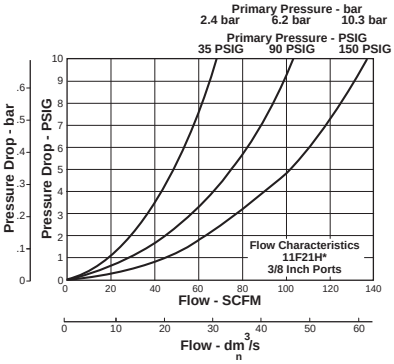


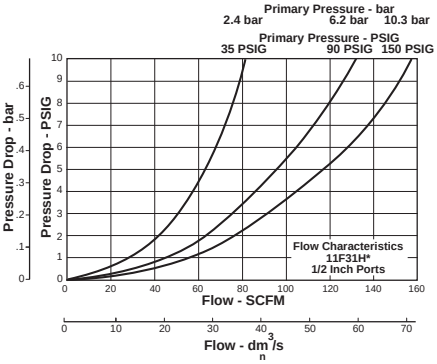




Grade 10







11F Coalescing Filter Kits & Accessories

Bowl Guard Kit PS705P

Bowl Kits –

Poly Bowl – Automatic Float Drain PS722P
Twist Drain PS732P

Metal Bowl – Automatic Float Drain PS726P
Twist Drain PS734P
Sight Gauge / Automatic Float Drain PS723P
Sight Gauge / Twist Drain PS735P

DPI Replacement Kit PS781P

Electronic DPI Replacement Kit PS764

Drain Kits – Automatic Float Drain PS506P
Semi-Auto Drain PS511P
Twist Drain PS512P
Push 'N' Drain PS513P

Electrical Connector - 15mm, 3-Pin DIN, 6 Ft. Cord PS2932JBP

Filter Element Kits – Grade 6 (Standard) PS724P
Grade 10 (Optional) PS730P

Mounting Bracket Kit PS743P

Sight Gauge Kit PS914P

Specifications

Bowl Capacity ..... 4.4 Ounces

Sump Capacity ..... 1.75 Ounces

Operation – Normal Operating Pressure Drop ..... 2 PSIG
Maximum Recommended Pressure Drop ..... 10 PSIG
(Element should be replaced)
Minimum Recommended Flow –
20% Nominal Rating of Element

Port Threads ..... 1/4, 3/8, 1/2 Inch

Pressure & Temperature Ratings –
Without Differential Pressure Indicator:
Polycarbonate Bowl – 0 to 150 PSIG (0 to 10.3 bar)
32°F to 125°F (0°C to 52°C)
Metal Bowl – 0 to 250 PSIG (0 to 17.2 bar)
32°F to 175°F (0°C to 80°C)
With Differential Pressure Indicator – 0 to 150 PSIG (0 to 10.3 bar)
32°F to 125°F (0°C to 52°C)
Automatic Float Drain – 15 to 250 PSIG (1.0 to 17.2 bar)

Weight ..... 1.5 lb (0.7 kg)

Materials of Construction

Body ..... Zinc

Bowls ..... Transparent Polycarbonate
Metal (Zinc) With or Without Sight Gauge

Bowl Guard ..... Steel

Collar ..... Plastic

Drains – Twist Drain – Body & Nut ..... Plastic
Push 'N' Drain – Body ..... Nitrile
Stem ..... Brass
Automatic Float Drain – ..... Housing, Float Plastic
Seals ..... Nitrile
Springs, Push Rod ..... Stainless Steel

Filter Element –
Borosilicate & felt glass fibers 99.97% DOP efficiency
Largest Aerosol Particle Passed (Grade 6) ..... 0.01 Micron
Largest Solid Particle Passed (Grade 6) ..... 0.30 Micron

Seals ..... Nitrile

Sight Gauge ..... Polyamide

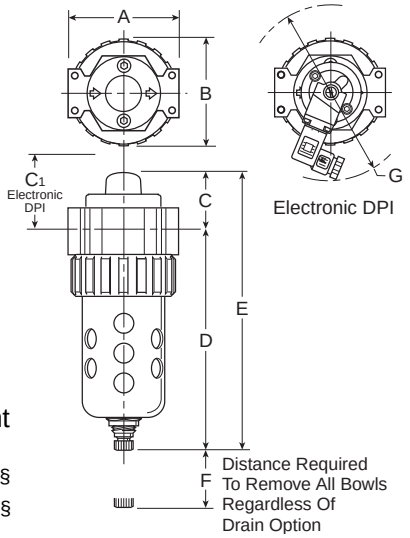
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Pneumatic Division
Richland, Michigan
www.parker.com/pneumatics

12F Coalescing Filters – Standard



Features

- Removes liquid aerosols and sub-micron particles.
- Liquids gravitate to the bottom of the element and will not re-enter the airstream.
- Oil free air for critical applications, such as air gauging and pneumatic instrumentation and controls.
- Interchangeable twist and automatic float drains.
- Pressure differential indicator standard.
- Shown with recommended metal bowl guard.
- High Flow: Grade 6 Element — 3/8" – 73 SCFM§, 1/2" – 75 SCFM§, 3/4" – 80 SCFM§; Grade 10 Element — 3/8" – 98 SCFM§, 1/2" – 125 SCFM§, 3/4" – 160 SCFM§



Port Size	NPT	
	Twist Drain	Automatic Float Drain
Poly Bowl ‡ / Metal Guard		
3/8"	**12F22E***	**12F26E***
1/2"	**12F32E***	**12F36E***
3/4"	**12F42E***	**12F46E***
Metal Bowl / Sight Gauge		
3/8"	**12F24E***	**12F28E***
1/2"	**12F34E***	**12F38E***
3/4"	**12F44E***	**12F48E***

Standard part numbers shown bold, with Grade 6 Elements (for Grade 10 Elements, replace "E" with "H" in the 6th position). For other models refer to ordering information below.

‡ For polycarbonate bowl see Caution on page A2.

§ SCFM = Standard cubic feet per minute at 90 PSIG inlet and 5 PSIG pressure drop.

12F Coalescing Filter Dimensions		
A 3.24 (82)	**B** 3.25 (83)	**C** 1.63 (41)
C_1 2.00 (51)	**D** 6.97 (177)	**D †** 7.00 (178)
E 8.60 (218)	**E †** 8.63 (219)	**F** 2.75 (70)
G Dia. 4.50 (114)		

Inches (mm)

† With Automatic Float Drain

Ordering Information

12F	3	2	E	*	—	—

Port Size
- **2 3/8 Inch**
- **3 1/2 Inch**
- **4 3/4 Inch**

Bowl Options

Polycarbonate Bowl	Metal Bowl
1 Twist Drain	3 Twist Drain
2 Metal Bowl Guard / Twist Drain	**4 Sight Gauge / Twist Drain**
5 Auto Float Drain	7 Auto Float Drain
6 Metal Bowl Guard / Auto Float Drain	**8 Sight Gauge / Auto Float Drain**

Elements
- **E Grade 6**
- H Grade 10

Engineering Level
- * Will be Entered at Factory

Options
- **Blank With Differential Pressure Indicator**
- N Without Differential Pressure Indicator
- R With Electronic DPI

Port Type

Blank	NPT
1*	BSPP
2	BSPT

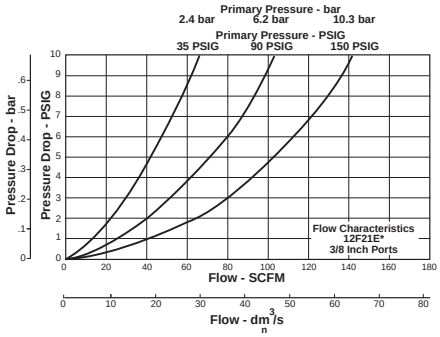
* 3/8 & 1/2 inch meet ISO 1179-1 Standard.

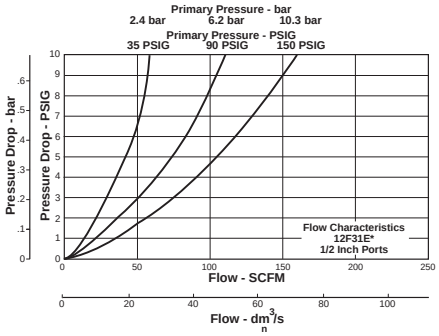
BOLD ITEMS ARE MOST POPULAR.

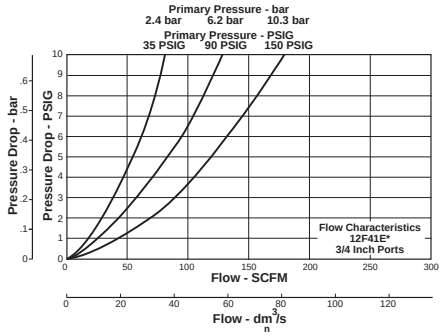
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Technical Information

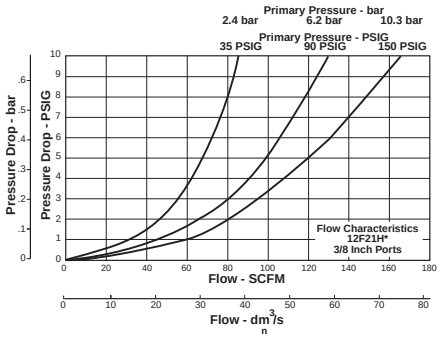
Grade 6

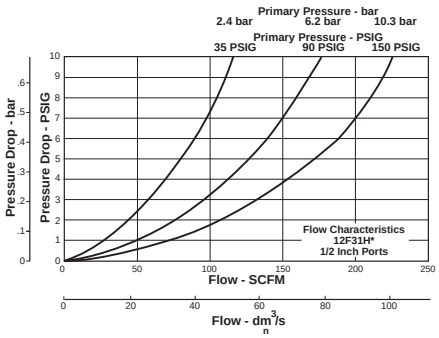


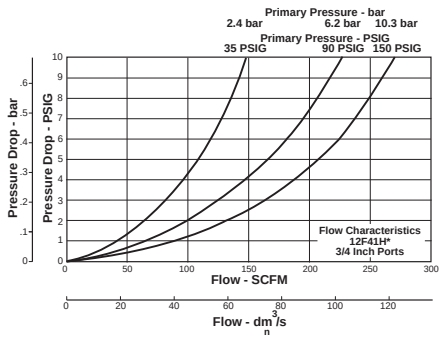




Grade 10







12F Coalescing Filter Kits & Accessories

Bowl Guard Kit PS805P

Bowl Kits –

Poly Bowl – Automatic Float Drain PS822P
Twist Drain PS832P
Metal Bowl – Automatic Float Drain PS826P
Twist Drain PS834P
Sight Gauge / Automatic Float Drain PS823P
Sight Gauge / Twist Drain PS835P

DPI Replacement Kit PS781P

Electronic DPI Replacement Kit PS764

Drain Kits – Automatic Float Drain PS506P
Semi-Auto Drain PS511P
Twist Drain PS512P
Push 'N' Drain PS513P

Electrical Connector - 15mm, 3-Pin DIN, 6 Ft. Cord PS2932JBP

Filter Element Kits – Grade 6 (Standard) PS824P
Grade 10 (Optional) PS830P

Mounting Bracket Kit PS843P

Sight Gauge Kit PS914P

Specifications

Bowl Capacity ..... 7.2 Ounces

Sump Capacity ..... 2.8 Ounces

Operation – Normal Operating Pressure Drop ..... 2 PSIG
Maximum Recommended Pressure Drop ..... 10 PSIG
(Element should be replaced)
Minimum Recommended Flow –
20% Nominal Rating of Element

Port Threads ..... 3/8, 1/2 & 3/4 Inch

Pressure & Temperature Ratings –

Without Differential Pressure Indicator:
Polycarbonate Bowl – 0 to 150 PSIG (0 to 10.3 bar)
32°F to 125°F (0°C to 52°C)
Metal Bowl – 0 to 250 PSIG (0 to 17.2 bar)
32°F to 175°F (0°C to 80°C)
With Differential Pressure Indicator: 0 to 150 PSIG (0 to 10.3 bar)
32°F to 125°F (0°C to 52°C)
Automatic Float Drain – 15 to 250 PSIG (1.0 to 17.2 bar)

Weight ..... 2.4 lb. (1.1 kg)

Materials of Construction

Body ..... Zinc

Bowls ..... Transparent Polycarbonate
Metal (Zinc) With or Without Sight Gauge

Bowl Guard ..... Steel

Collar ..... Plastic or Metal

Drains – Twist Drain – Body & Nut ..... Plastic
Push 'N' Drain – Body ..... Nitrile
Stem ..... Brass
Automatic Float Drain – ..... Housing, Float Plastic
Seals ..... Nitrile
Springs, Push Rod ..... Stainless Steel

Filter Element –
Borosilicate & felt glass fibers 99.97% DOP efficiency
Largest Aerosol Particle Passed (Grade 6) ..... 0.01 Micron
Largest Solid Particle Passed (Grade 6) ..... 0.30 Micron

Seals ..... Nitrile

Sight Gauge ..... Polyamide

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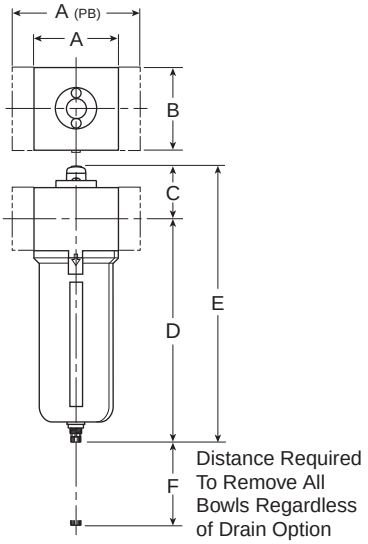
A

P3NF Coalescing Filters – Hi-Flow



Features

- Port blocks (PB) available to provide 1-1/2" port extension to 1" ported bodies.
- Metal bowl with sight gauge.
- Large filter element surface guarantees low pressure drop and increased element life.
- Twist Drain as standard, optional automatic float drain.
- High Flow: Grade 6 Element
  - 3/4" – 130 SCFM§
  - 1" – 140 SCFM§
  - 1-1/2"† – 150 SCFM§
  - Grade 10 Element
  - 3/4" – 195 SCFM§
  - 1" – 215 SCFM§
  - 1-1/2"† – 225 SCFM§



Port Size	NPT	
	Twist Drain	Automatic Float Drain
Metal Bowl / Sight Gauge		
3/4"	**P3NFA96DSM**	**P3NFA96DSA**
1"	**P3NFA98DSM**	**P3NFA98DSA**
1-1/2"†	**P3NFA9PDSM**	**P3NFA9PDSA**

Standard part numbers shown bold for Grade 6 Elements (for Grade 10 Elements, replace "D" with "Q" in the 8th position). For other models refer to ordering information below.

† 1" Port Body with 1-1/2" Port Block.

§ SCFM = Standard cubic feet per minute at 90 PSIG inlet and 5 PSIG pressure drop.

P3NF Coalescing Filter Dimensions		
A 3.62 (92)	**A (PB)** 5.91 (150)	**B** 3.62 (92)
C 2.30 (58.5)	**D †** 9.57 (243)	**E †** 11.90 (302)
F 4.92 (125)		

Inches (mm)

† With Twist Drain or Automatic Float Drain

Ordering Information

P3N	F	A	9	8	D	S	M

Design Level

Port Type
- 1* G Thread (BSPP) Female
- 2 Rc Thread (BSPT) Female
- **9 NPT Female**

* 3/4 & 1 inch meet ISO 1179-1 Standard.

Port Size
- **6 3/4" (w/o Port Blocks)**
- **8 1" (w/o Port Blocks)**
- **P 1-1/2" Port Blocks (w/ 1" Ported Body)**

Element
w/ DPI Indicator
- **D Grade 6**
- Q Grade 10

Bowl
- **S Metal Bowl w/ Sight Gauge**

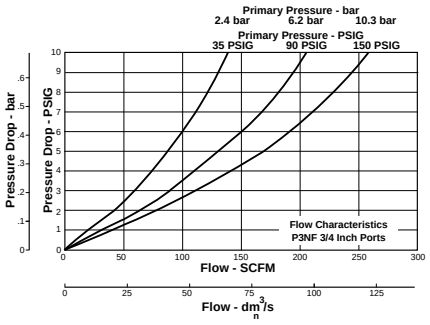
Drain
- **M Twist Drain**
- A Automatic Float Drain

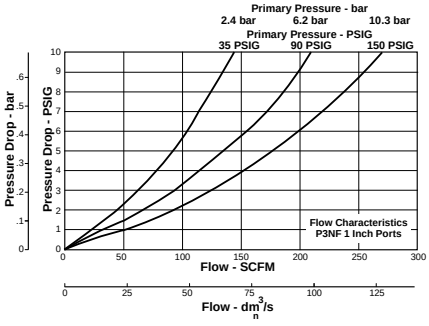
BOLD ITEMS ARE MOST POPULAR.

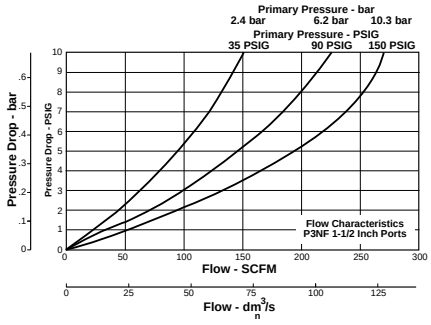
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Technical Information

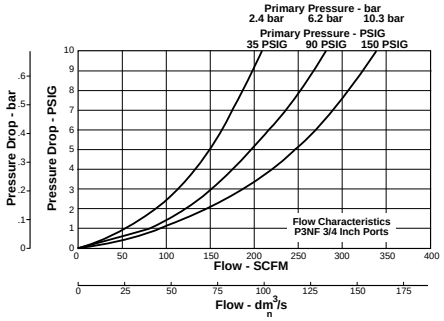
Grade 6

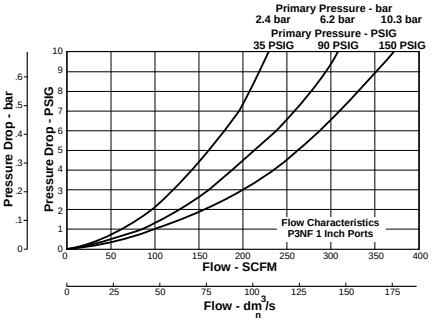


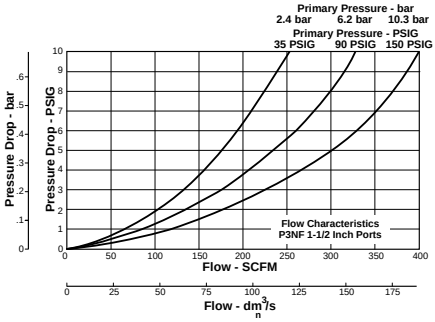




Grade 10







P3NF Coalescing Filter Kits & Accessories

Bowl Kits –
Metal Bowl –
Sight Gauge / Automatic Float Drain P3NKA00BSA
Sight Gauge / Twist Drain P3NKA00BSM
Sight Gauge / Push 'N' Drain P3NKA00BSP

Bowl Latch Kit C11A33

DPI Replacement Kit PS781P

Drain Kit –
Automatic Float Drain PS506P
Semi-Auto Drain PS511P
Twist Drain PS512P
Push 'N' Drain PS513P

Filter Elements – Grade 6 (Standard) P3NKA00ESCB
Grade 10 (Optional) P3NKA00ES9

Sight Gauge Kit P3NKA00PE

Mounting Bracket Kit* P3NKA00MW

* If 1-1/2 BSPP E02 fittings are required, use P3NKA0BMW.

Specifications

Bowl Capacity ..... 18.0 Ounces

Sump Capacity ..... 6.8 Ounces

Filter Element –
Borosilicate & felt glass fibers 99.97% DOP efficiency
Largest Aerosol Particle Passed (Grade 6) ..... 0.01 Micron
Largest Solid Particle Passed (Grade 6) ..... 0.30 Micron

Pressure & Temperature Rating – .... 0 to 250 PSIG (0 to 17.2 bar)
32°F to 175°F (0°C to 80°C)
Automatic Float Drain – 15 to 250 PSIG (1.0 to 17.2 bar)

Materials of Construction

Body & Bowl ..... Aluminum

Deflector ..... Plastic

Drain ..... Plastic

Seals ..... Nitrile

Sight Gauge ..... Polyamide (Nylon)

Weight – 3/4" ..... 3.5 lb. (1.6 kg)
1" ..... 3.5 lb. (1.6 kg)
1-1/2" † ..... 4.6 lb. (2.1 kg)

† 1" Port Body with 1-1/2" Port Block.

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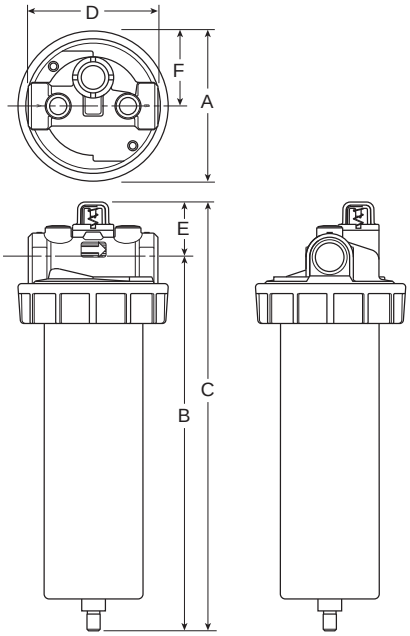
F701 Coalescing Filters



Features

- Removes liquid aerosols and sub-micron particles.
- Protects pneumatic systems from contamination that standard particulate filters will not catch.
- Two different grade elements available.
- Differential pressure pop-up indicator standard.
- Differential pressure gauge optional.
- High flow design.

Note: All coalescing filters should be protected by a particulate filter (i.e., F602, or other) installed upstream.



Port Size	Grade 6		Grade 10	
	Flow (SCFM)*	Part Number	Flow (SCFM)*	Part Number
Metal Bowl 32 oz.				
3/4"	95	**F701-06E3P**	158	**F701-06E7P**
1"	95	**F701-08E3P**	158	**F701-08E7P**
Metal Bowl 100 oz.				
3/4"	170	**F701-06L3P**	285	**F701-06L7P**
1"	170	**F701-08L3P**	285	**F701-08L7P**

* Dry media flow. For wet media info see table on next page.

F701 Coalescing Filter Dimensions						
Port Size	Bowl Capacity	A	B	C	D	E
3/4 & 1 Inch (E)	32 oz.	4.95 (126)	11.77 (299)	13 (330)	4.00 (101)	1.23 (31)
3/4 & 1 Inch (L)	100 oz.	4.95 (126)	21.39 (543)	22.63 (575)	4.00 (101)	1.23 (31)

"G" Differential Pressure Gauge add 2.00 (50.8) to C & E.
"Q" External Auto Drain add 1.70 (43.1) to B & C.

inches (mm)

Ordering Information

F	701	—	06	E	3	P	—	/**

Port Threads
- **— NPT**
- G BSPP

Port Size
- **06 3/4 Inch**
- **08 1 Inch**

Bowl
- **E Metal without Sight Gauge 32 oz.**
- **L Metal without Sight Gauge 100 oz.**

Element
- **3 Grade 6**
- **7 Grade 10**

Element Service Indicator
- Blank None
- **P Pop-up Style**
- G Differential Pressure Gauge

Bowl Drains
- **Blank Manual Twist Drain**
- T High Pressure Internal Auto Drain
- Q* External Auto Drain
- R Low Pressure Internal Auto Drain

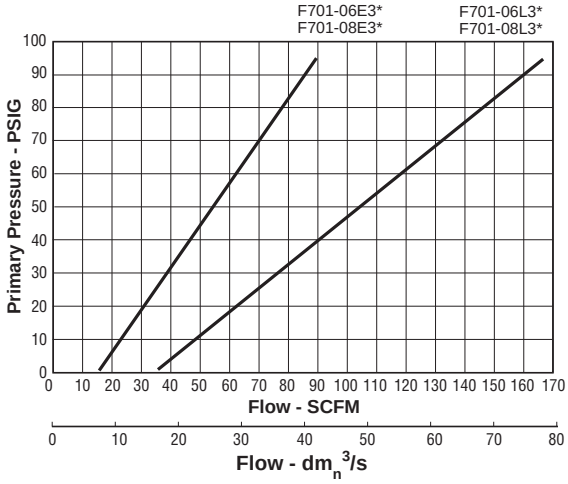
Engineering Level
- * Will be Entered at Factory

*"Q" Option Not Available with Bowl Option "L".

BOLD ITEMS ARE MOST POPULAR.

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Technical Information



Media Specifications

Grade	D.O.P. Coalescing Efficiency 0.3 to 0.6 Micron Particles	Maximum Oil Carryover[1] PPM w/w	Pressure Drop (PSID)[2] @ Rated Flow	
			Media Dry	Media Wet With 10-20 wt. oil
6	99.97%	0.008	1.0	2-3
10	95%	0.85	0.5	0.5

[1] Tested per BCAS 860900 at 40 ppm inlet.
[2] Add dry + wet for total pressure drop.
D.O.P. = Dioctylphthalate

F701 Filter Kits & Accessories

Mounting Bracket –
Port Size
3/4 (Pair of Pipe Mounted Brackets)..... SA200AW57
1 (Pair of Pipe Mounted Brackets)..... SA200CW57

Bowl Kit –
Port Size
3/4, 1 Inch (E) 32 oz BK603B
3/4, 1 Inch (L) 100 oz..... BK603C

Differential Pressure Pop Up Indicator Repair Kit RK701P
(only works with originally equipped units)

Differential Pressure Gauge DP276-P
(only works on units without pop-up indicator)

Drain Kits –
Internal Automatic Drain - High Pressure (T) SA702MD
Manual Twist Drain SA600Y7-1

Filter Element Kits –
Port Size / Grade 6
3/4, 1 Inch (E) 32 oz. F701-C3-0773
3/4, 1 Inch (L) 100 oz.....F701-C3-0774

Port Size / Grade 10
3/4, 1 Inch (E) 32 oz. F701-C7-0773
3/4, 1 Inch (L) 100 oz.....F701-C7-0774

Specifications

Operation –
Maximum Recommended Pressure Drop .....10 PSIG
(element should be replaced)
Normal Operating Pressure Drop (Dry).....2 PSIG
Normal Operating Pressure Drop (Wet) .....5 PSIG

Minimum Recommended Flow – ..... 20% of Rated Flow

Maximum Pressure (Manual Drains) – .....0 to 300 PSIG (0-20 bar)

Maximum Pressure (Auto Drains) –
"R" Drain (Low Pressure Internal).....175 PSIG (12 bar)
"T" Drain (High Pressure Internal) ..... 250 PSIG (17 bar)
"Q" Drain (External) ..... 250 PSIG (17 bar)

Maximum Temperature .....32°F to 150°F (0°C to 65°C)
Maximum temperature with "T", "R", or "Q" Drains ..... 125°F (52°C)

Weight –
3/4 & 1 Inch (E) 32 oz.....5 lb. (2.3 kg)
3/4 & 1 Inch (L) 100 oz. .....8 lb. (3.6 kg)

Materials of Construction

Body & Flange Ring .....Zinc

Bowl –
Metal Bowl (E) (L)..... Aluminum

Drains –
Auto Float Drain –
Housing "R", "T" (Internal)..... Acetal
Housing "Q" (External)..... Bronze
Manual Twist Drain ..... Brass

Seals & Float ..... Buna N

Springs .....Stainless Steel

Elements (Media) ..... Borosilicate Fibers & Felt

Element End Caps .....Urethane

Seals ..... Buna N

( ) = Bowl Type

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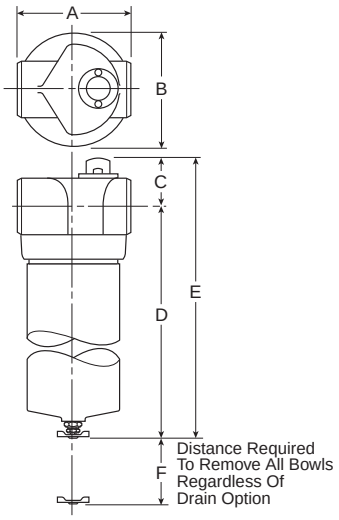
30F, 31F, 32F Coalescing Filters – Main Line



Features

- Removes liquid aerosols and sub-micron particles.
- Liquids gravitate to the bottom of the element and will not re-enter the airstream.
- Oil free air for critical applications, such as air gauging and pneumatic instrumentation and controls.
- Differential pressure indicator standard.
- High Flow:

Port Size	Model	Sump Capacity	Grade 6 SCFM§	Grade 10 SCFM§
1-1/2"	30F	14.8 Oz.	350	600
2"	31F83	17.9 Oz.	450	750
2"	31F8L	20.9 Oz.	625	1035
2-1/2"	32F9	29.7 Oz.	800	1330
3"	32FN	29.7 Oz.	1000	1660



Port Size	Twist Drain
Metal Bowl without Sight Gauge	
1-1/2"	**30F73E*P**
2"	**31F83E*P**
2"	**31F8LE*P**
2-1/2"	**32F9LE*P**
3"	**32FNLE*P**

Standard part numbers shown bold, with Grade 6 Elements (for Grade 10 Elements, replace "E" with "H" in the 6th position). For other models refer to ordering information below.

§ SCFM = Standard cubic feet per minute at 90 PSIG inlet and 5 PSIG pressure drop.

Main Line – Coalescing Filter Dimensions

	A	B	C	D	E	F
30F73	6.00 (152)	5.67 (144)	2.55 (65)	17.97 (456)	20.52 (521)	13.50 (343)
30F77	6.00 (152)	5.67 (144)	2.55 (65)	17.76 (451)	20.32 (516)	13.50 (343)
31F83	6.00 (152)	5.67 (144)	2.55 (65)	23.60 (599)	26.15 (664)	19.25 (489)
31F8L	6.00 (152)	5.67 (144)	2.55 (65)	28.60 (726)	31.15 (791)	24.02 (610)
31F87	6.00 (152)	5.67 (144)	2.55 (65)	23.40 (594)	25.95 (659)	19.25 (489)
31F8M	6.00 (152)	5.67 (144)	2.55 (65)	28.39 (721)	30.06 (763)	24.02 (610)
32F9L	8.00 (203)	7.60 (193)	3.31 (84)	34.64 (880)	37.94 (964)	28.50 (724)
32F9M	8.00 (203)	7.60 (193)	3.31 (84)	34.40 (875)	37.74 (959)	28.50 (724)
32FNL	8.00 (203)	7.60 (193)	3.31 (84)	34.64 (880)	37.94 (964)	28.50 (724)
32FNM	8.00 (203)	7.60 (193)	3.31 (84)	34.40 (875)	37.74 (959)	28.50 (724)

Inches (mm)

Ordering Information

30F	7	3	E	*	P

Port Size
30F
7 1-1/2 Inch
31F
8 2 Inch
32F
9 2-1/2 Inch
N 3 Inch

Bowl Options
Twist Drain
3 Short Bowl (30F, 31F)
L Long Bowl (31F, 32F)
Metal Bowl with Automatic Float Drain
7 Short Bowl (30F, 31F)
M Long Bowl (31F, 32F)

Element
E Grade 6
H Grade 10

Engineering Level
* Will be Entered at Factory

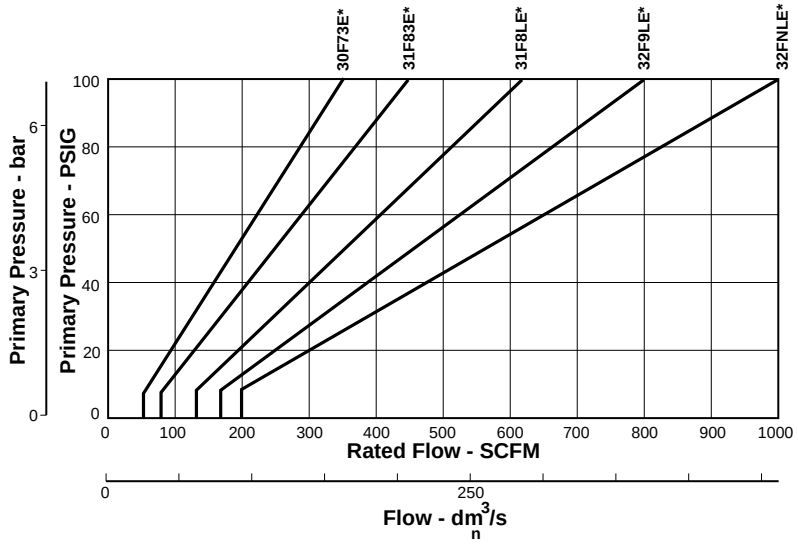
Options
P Pressure Differential Indicator

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Technical Information



30F, 31F, 32F Coalescing Filter Kits & Accessories

Bowl Kit – Metal / Twist Drain –
- 30F 41618P
- 31F83 ..... 41619P

DPI Replacement Kit –
- 30F, 31F83, 31F8L, 32F 2003P

Differential Pressure Indicating Gauge –
- 30F, 31F83, 31F8L, 32F 2111P

Drain Kits – Automatic Float Drain –
- 30F, 31F83, 31F8L, 32F PS506P

Filter Element Kits –
- Grade 6 (Standard) –
  - 30F 9920-011X1P
  - 31F83 ..... 9920-012X1P
  - 31F8L 9920-013X1P
  - 32F 9920-014X1P
- Grade 10 (Optional) –
  - 30F 9920-015X1P
  - 31F83 ..... 9920-016X1P
  - 31F8L 9920-017X1P
  - 32F 9920-018X1P

Specifications

Model	Sump Capacity	Port Threads	Weight
30F	14.8 Oz.	1-1/2"	11.9 lb. (5.4 kg)
31F83	17.9 Oz.	2"	14.0 lb. (6.4 kg)
31F8L	20.9 Oz.	2"	15.9 lb. (7.2 kg)
32F9	29.7 Oz.	2-1/2"	35.0 lb. (15.9 kg)
32FN	29.7 Oz.	3"	34.2 lb. (15.5 kg)

Operation –
- Normal Operating Pressure Drop ..... 2 PSIG
- Maximum Recommended Pressure Drop ..... 10 PSIG (Element should be replaced)
- Minimum Recommended Flow 20%

Pressure & Temperature Ratings – ... 0 to 250 PSIG (0 to 17.2 bar) 32°F to 175°F (0°C to 80°C)

Automatic Float Drain – 15 to 250 PSIG (1.0 to 17.2 bar)

Materials of Construction

Body ..... Aluminum

Bowl ..... Aluminum without Sight Gauge

Drains –
- Twist Drain ..... Brass Petcock
- Automatic Float Drain –
  - Housing, Float ..... Plastic
  - Seals ..... Buna N
  - Springs, Push Rod ..... Stainless Steel

Filter Element –
- Borosilicate & felt glass fibers 99.97% DOP efficiency
- Largest Aerosol Particle Passed (Grade 6) ..... 0.01 Micron
- Largest Solid Particle Passed (Grade 6) ..... 0.30 Micron

Seals ..... Nitrile

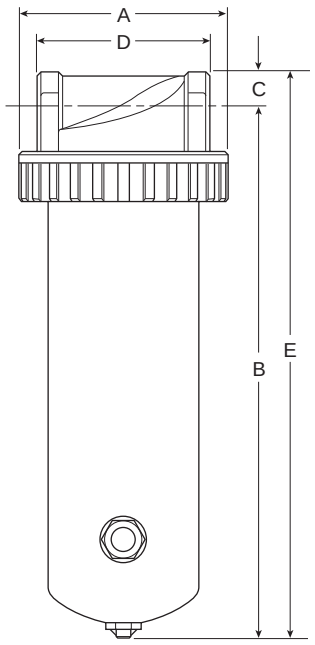
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DD Inline Desiccant Dryers



Features

- These desiccant dryers are a convenient and cost effective means of ensuring your sensitive pneumatic applications are never exposed to damaging moisture.
- Compact size for point-of-use applications.
- Recommended for Intermittent Usage
- Drying efficiency down to -40°F pressure dew point.
- Easily and quickly serviced.
- Sightglass in bowl to monitor desiccant.
- Built-in particulate after filter prevents downstream dust.
- No electricity needed.
- Low pressure drop.
- No purge air lost as with other dryer types.



Applications

- Paint Spraying
- Instrument Air
- Laboratory Instruments
- Control Air Systems
- Air Blanketing

Port Size	15 SCFM	30 SCFM	60 SCFM
Desiccant Capacity[1]	2.5 lb[1]	5 lb.[1]	10 lb.[1]
1/4" [2]	**DD15-02**	N/A	N/A
3/8" [2]	**DD15-03**	N/A	N/A
1/2" [2]	**DD15-04**	**DD30-04**	**DD60-04**
3/4"	**DD15-06**	**DD30-06**	**DD60-06**
1"	N/A	**DD30-08**	**DD60-08**

Notes:
1. Desiccant must be ordered separately
2. These units supplied with reducer bushings

DD Desiccant Dryer Dimensions					
	A	**B**	**C**	**D***	**E**
DD15	4.94 (125)	12.69 (322)	.84 (21)	4.06 (103)	13.5 (343)
DD30	4.94 (125)	22.44 (570)	.84 (21)	4.06 (103)	23.25 (591)
DD60	4.94 (125)	29.44 (748)	.84 (21)	4.06 (103)	30.25 (768)

* Dimension does not include reducer bushings for 1/4", 3/8", 1/2" versions

inches (mm)

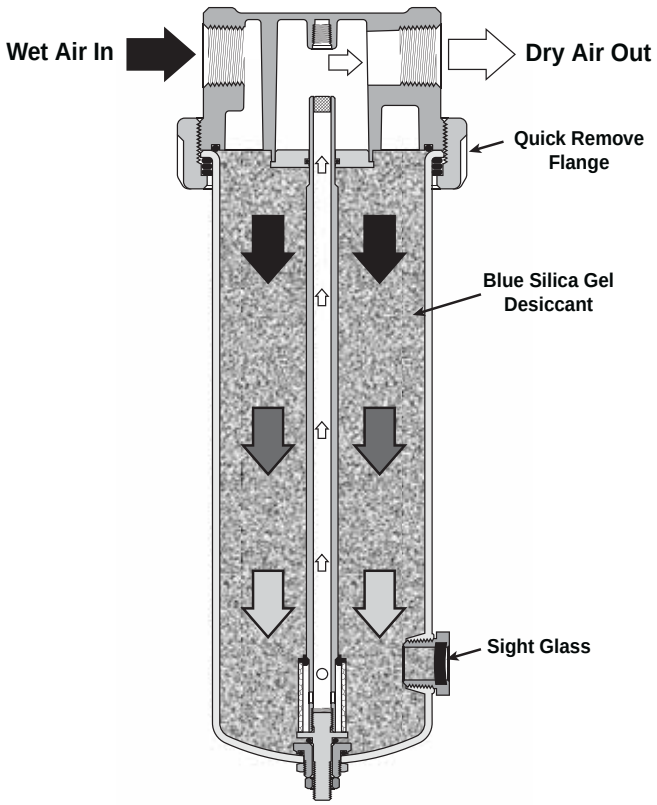
Performance

The rated flow capacities are nominal ratings provided for reference. These capacities are recommended for minimal pressure drop and average desiccant life. A supply of low flow / low humidity air will provide longer desiccant life: whereas, high flow / high humidity air will require more frequent desiccant changes. Installed in an application with intermittent flow, these desiccant dryers will typically dry air for weeks before the silica gel desiccant requires replacement or regeneration.

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As the wet compressed air enters through the inlet, the air travels down through the bed of desiccant which adsorb the water vapor and aerosols. The silica gel desiccant beads will reduce the humidity down to a -40°F pressure dew point. After the moisture has been removed, the dry air passes through a sintered bronze filter element (eliminating dust downstream), up the tube and out the outlet port.

As the desiccant becomes saturated with moisture, the dew point will begin to rise. This is evident when the blue silica gel desiccant beads in the sight glass change to pink, indicating the need for desiccant replacement. Simply remove the flange and bowl and replace with new desiccant or regenerate saturated desiccant by heating to 275°F.



Installation Tips

- Always place a moisture separator/particulate filter to remove bulk moisture **and** a coalescing filter to remove oil upstream of desiccant dryer. Desiccant coated with oil will not adsorb oil.
- Automatic drains should be used in prefilters
- A spring ball check valve should be installed at the dryer inlet to maximize the life of the desiccant.

Desiccant Dryers Kits & Accessories

Desiccant - Silica Gel 100% Indicating –
(6) .88 lb. Bags SGM100-1
(24) .88 lb. Bags SGM100-4

Flow Tube Repair Kit (Tube, Filter Element(s), Adaptor)
DD15 ..... RKDD15-02-06
DD30 ..... RKDD30-03-08
DD60 ..... RKDD60-03-08

Mounting Brackets (Recommended for DD15 & DD30 only) –
1/4 Inch Pipe Size (Pair of Pipe Mounted Brackets).... SA200YW57
1 Inch Pipe Size (Pair of Pipe Mounted Brackets)..... SA200CW57

Spring Check Valve for Inlet (250 PSIG max.) –
(Maximizes Life of Desiccant)
1/4 Inch NPT.....003393001
3/8 Inch NPT.....003393002
1/2 Inch NPT.....003393003
3/4 Inch NPT.....003393004

Specifications

Desiccant Capacity (Desiccant must be ordered separately) –
DD15 ..... 2.5 lb.
DD30 ..... 5 lb.
DD60 ..... 10 lb.

Filter Element Rating –
DD15, DD30 ..... 90 micron
DD60 ..... 40 micron

Pressure & Temperature Ratings –
Optimum working temperature ..... Below 100° F
Pressure Range..... 0 to 300 PSIG
Temperature Range..... 32°F to 180°F

Weight (Housing Only) –
DD15 (add 2.5 lb for weight full) ..... 8 lb. (3.6 kg)
DD30 (add 5 lb for weight full) ..... 13 lb. (5.9 kg)
DD60 (add 10 lb for weight full) ..... 20 lb. (9.1 kg)

Materials of Construction

Bowl –
DD15, DD30 ..... Aluminum
DD60 ..... Steel

Flow Tube ..... CPVC

Filter Elements ..... Sintered Bronze

Head & Flange Ring ..... Zinc

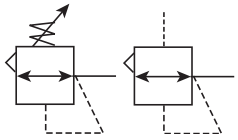
Other Hardware ..... Brass

Seals ..... Buna-N

Sight Glass ..... Glass & Steel

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Regulators



- Pipe Sizes 1/8 thru 2 Inch
- Flows to 1000 SCFM
- Pressures to 250 PSIG

Air regulators are designed to provide quick response and accurate pressure regulation for the most demanding industrial applications.

- Miniature 02R Series, 1/4 Inch
- Miniature 14R Series, 1/8 and 1/4 Inch
- Miniature P3A-R Series, 1/8 and 1/4 Inch
- Miniature R34 Series, 1/8 and 1/4 Inch
- Miniature R24 / R25 Series, 1/4 and 3/8 Inch
- Miniature R45 / R46 Series, 1/4 and 3/8 Inch
- Economy 15R Series, 1/4 and 3/8 Inch
- Economy 05R Series, 1/4 and 3/8 Inch
- Compact 06R Series, 1/4, 3/8 and 1/2 Inch
- Standard 07R Series, 3/8, 1/2 and 3/4 Inch
- Hi-Flow P3NR Series, 3/4, 1 and 1-1/2 Inch
- Hi-Flow R119 Series, 3/4 thru 2 Inch
- Hi-Flow 09R Series, 2 Inch
- Pilot Operated 10R, 11R, 12R, P3NR Series, 1/4 thru 1-1/2 Inch; R119 Series 3/4 thru 2-1/2 Inch

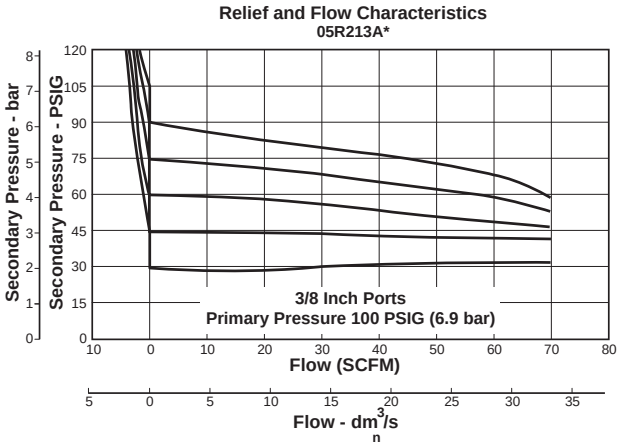
Miniature Regulators for Water Service

- Miniature R24 & R25 Series, 1/4 and 3/8 Inch
- Miniature R45 & R46 Series, 1/4 and 3/8 Inch
- Miniature 20R Series, 1/8 and 1/4 Inch

Regulator Selection

1. Determine maximum system flow requirements.
2. Determine maximum allowable pressure drop at rated flow in SCFM.
3. Refer to flow chart and select regulator by choosing the curve that offers minimum pressure drop at desired flow in SCFM.

Reading Flow Charts to Size Regulators



Once the required flow is determined for a pneumatic application the regulator or filter/regulator can be selected by using the flow chart. The chart serves two different purposes. To read the flow, use the right side of the chart. To read the relief characteristics use the left side of the chart. When reading the flow chart, first determine the secondary pressure that will be used. Find the appropriate pressure curve on the graph. Given an acceptable pressure drop for an application, follow the flow curve until it intersects the pressure drop point. This will give the flow at that particular pressure drop.

⚠ WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

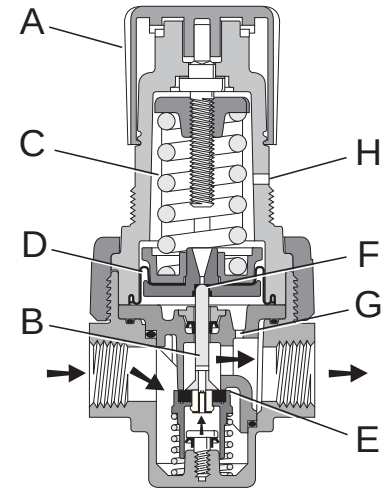
For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

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General Purpose Regulators

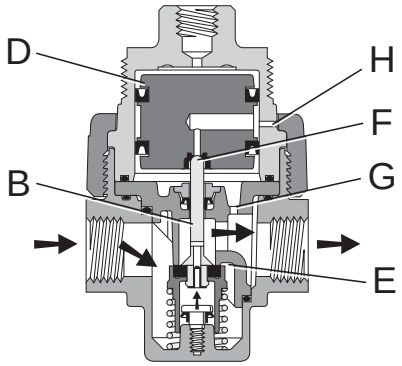
Used to provide a convenient and low cost method to reduce a supplied air pressure to a desired outlet pressure and transform a fluctuating air supply to a relatively constant reduced air pressure within the operating range of the regulator.

This type of regulator is generally used in a widevariety of applications where reduced pressure is highly desirable for energy conservation, safety requirements, air circuit control and air instrumentation.



Operation

With the adjusting knob (**A**) turned fully counterclockwise (no spring load), and pressure supplied to the regulator inlet port, the valve poppet assembly (**B**) is closed. Turning the adjusting knob clockwise applies a load to control spring (**C**). This load causes the piston /diaphragm (**D**) and the valve poppet assembly (**B**) to move downward allowing flow across the seat area (**E**) created between the poppet assembly and the seat. Pressure in the downstream line is sensed below the piston / diaphragm (**D**) and offsets the load of spring (**C**). As downstream pressure rises, poppet assembly (**B**) and control piston (**C**) move upward until the area (**E**) is closed and the load of the spring (**C**) and pressure under piston / diaphragm (**D**) are in balance. A reduced outlet pressure has now been obtained, depending on spring load. Creating a demand downstream, such as opening a valve, results in a reduced pressure under the piston / diaphragm (**D**). The load of control spring (**C**) now causes the poppet assembly to move downward opening seat area (**E**) allowing air to flow to meet the downstream demand. The flow of downstream air is metered by the amount of opening (**E**).



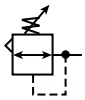
During low flow requirements, the amount of opening at the seat (**E**) is small, while at high flows it is large. The downstream pressure signal, which regulates the amount of opening, requires an adjustment over this range, in order to attempt a constant output. This adjustment is the orifice (**G**), which is sized and located in such a manner as to provide a compensation to the downstream pressure signal transmitted to the piston. This effect is called aspiration and its effect is to maintain downstream pressure nearly constant over a wide range of flow demands.

Should downstream pressure exceed the desired regulated pressure, the excess pressure will cause the piston / diaphragm (**D**) to move upward against control spring (**C**), open vent hole (**F**), and vent the excess pressure to atmosphere through the hole in the bonnet (**H**). (This occurs in the relieving type regulator only.)

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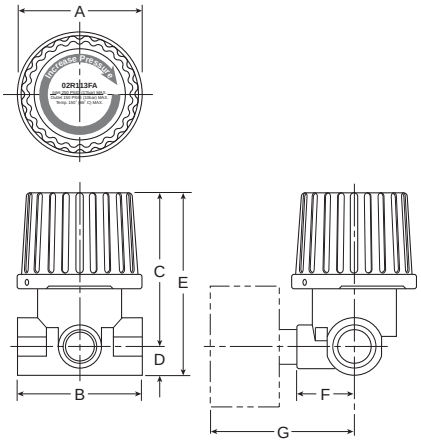
02R Regulator





Features

- Compact, space saving design.
- High flow.
- Light weight.
- Relieving piston design provides excellent pressure regulation and allows reduction of downstream pressure when system is deadheaded.



Port Size	Standard Pressure 0 to 125 PSIG (0 to 8.6 bar)
1/4"	**02R113FA**
	BP02R113FA*

* Consists of (50) pieces.

02R Regulator Dimensions						
A	**B**	**C**	**D**	**E**	**F**	**G**
1.65 (42)	1.63 (41)	1.97 (50)	0.33 (8)	2.30 (58)	0.75 (19)	1.88 (48)

Inches (mm)

CAUTION:

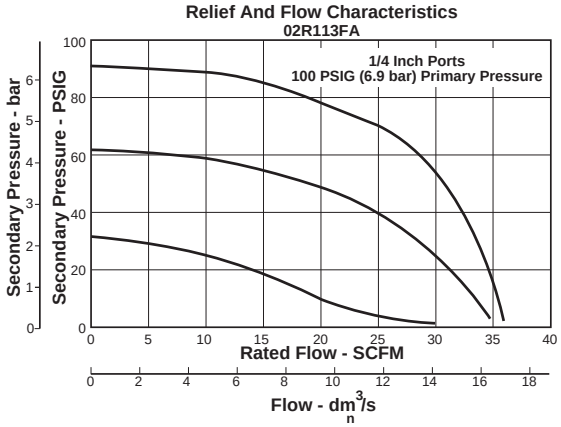
REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

⚠ WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

Technical Information



Specifications

Gauge Ports (1) ..... 1/8 Inch
Port Threads ..... 1/4" NPT
Pressure Rating ..... 0 to 250 PSIG (0 to 17,2 bar)
Temperature Rating ..... 32°F to 125°F (0°C to 52°C)
Secondary Pressure Range ..... 0.3 to 125 PSIG (0 to 8,6 bar)
Weight ..... 0.3 lb. (150 g)

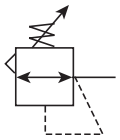
Adjusting Knob / Bonnet ..... Filled Polyamide
Body ..... Zinc
Bonnet, Seat, Piston ..... Acetal
Seals ..... Nitrile Rubber

Accessory

Gauge: 0 to 160 PSIG, 1/8" NPT (0 to 11.0 bar) K4515N18160

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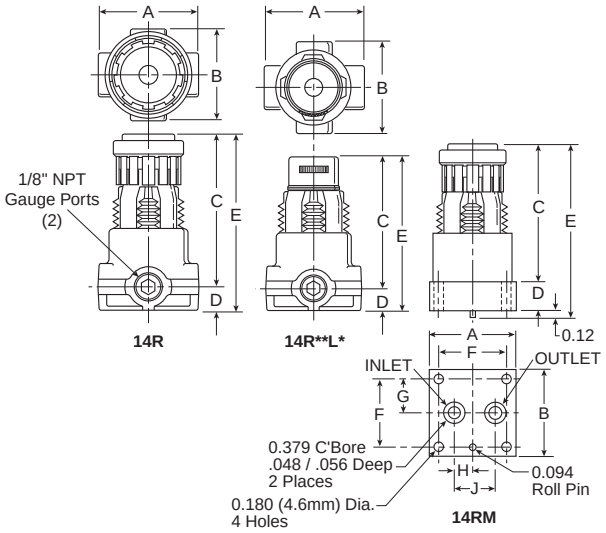
14R Regulators – Miniature





Features

- Unbalanced poppet standard.
- Solid control piston with lip seal for extended life.
- Non-rising adjusting knob.
- Compact, 2.88 inch (73,2mm) high by 1.65 inch (42mm) wide.
- Easily serviced.
- High Flow: 1/8" – 13 SCFM§
  1/4" – 15 SCFM§



Port Size	NPT
Without Gauge	
1/8"	**14R013F***
1/4"	**14R113F***
With Gauge	
1/8"	**14R018F***
1/4"	**14R118F***

Standard part numbers shown bold. For other models refer to ordering information below.

NOTE: 1.218 Dia. (31mm) hole required for panel mounting.

§ SCFM = Standard cubic feet per minute at 100 PSIG inlet, 90 PSIG no flow secondary setting and 10 PSIG pressure drop.

14R Regulator Dimensions					
14R	**A** 1.65 (42)	**B** 1.56 (40)	**C** 2.50 (63,5)	**D** 0.38 (10)	**E** 2.88 (73)
14RL***	**A** 1.65 (42)	**B** 1.56 (40)	**C** 2.28 (57,9)	**D** 0.38 (10)	**E** 2.68 (68)
14RM	**A** 1.50 (38)	**B** 1.50 (38)	**C** 2.36 (60)	**D** 0.50 (13)	**E** 2.98 (73)
	F 1.188 (30)	**G** 0.594 (15)	**H** 0.325 (8)	**J** 0.725 (18)	

Inches (mm)

Ordering Information

14R	1	13	F	*	—	—	---

Port Size

- **0 1/8 Inch Pipe, 1/8 Inch Gauge Port**
- **1 1/4 Inch Pipe, 1/8 Inch Gauge Port**
- B 1/4 Inch Pipe, 1/4 Inch Gauge Port
- C 1/8 Inch Pipe, No Gauge Port
- M Manifold Mounting

Pressure Range

Without Gauge			
Yellow Knob		Black Knob	
10	30 PSIG	B0	30 PSIG
11	60 PSIG	B1	60 PSIG
12	15 PSIG	B2	15 PSIG
13	**125 PSIG**	B3	125 PSIG
With Gauge*			
15	30 PSIG	B5	30 PSIG
16	60 PSIG	B6	60 PSIG
17	15 PSIG	B7	15 PSIG
18	**125 PSIG**	B8	125 PSIG

* Not available with BSPP or BSPT port types.

Relief

- **F Relieving**
- G Non-Relieving
- H Low Temp. Relieving
- J Low Temp. Non-Relieving

Engineering Level

- * Will be Entered at Factory

Port Type

Blank	NPT
1	BSPP
2	BSPT

Options

Blank	No Options
L†	Preset Non-Adjustable
P†	Preset Adjustable
S†	Pressure Limiter Max. Adjustable
T†	Pressure Limiter Max. Non-Adjustable

† Inlet Pressure is 100 PSIG. For other pressures, contact factory.

Preset / Pressure Limited

Blank	None
XXX*	Preset Pressure
XXX*	Pressure Limited

* Available Preset / Pressure Limited Range, 10 to 90 PSIG in 5 PSIG increments. For higher pressures, contact factory.

(Example: 065 = 65 PSIG)

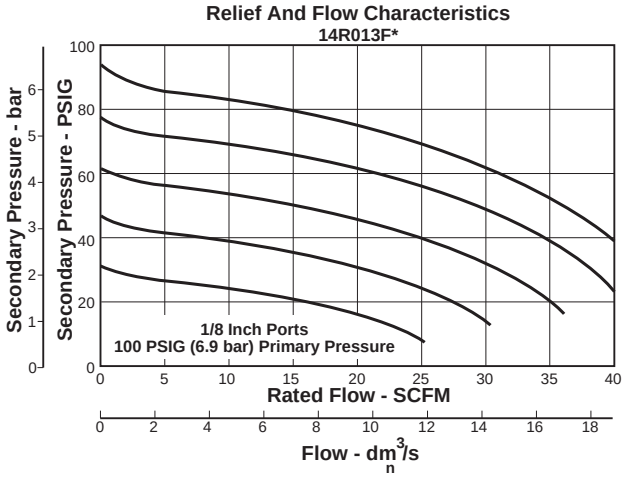
Spring Type by Preset / Limited Pressure:
For Preset / Limited Pressure 10 to 25 use 30 PSI Spring
For Preset / Limited Pressure 26 to 50 use 60 PSI Spring
For Preset / Limited Pressure 51 to 90 use 125 PSI Spring

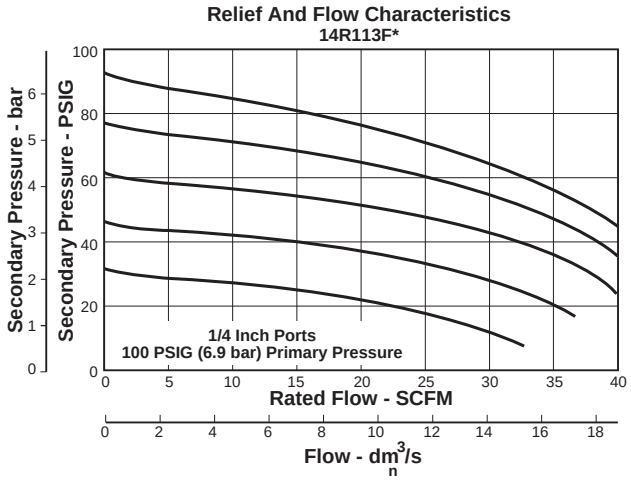
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Technical Information





CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

⚠ WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

14R Regulator Kits & Accessories

Bonnet Assembly Kit L01369

Bonnet Tamperproof Kit..... P01265

Gauges – 30 PSIG, 1/8" NPT (0 to 2.1 bar)..... K4515N18030
60 PSIG, 1/8" NPT (0 to 4.1 bar)..... K4515N18060
160 PSIG, 1/8" NPT (0 to 11.0 bar) K4515N18160
60 PSIG, 1/4" NPT (0 to 4.1 bar) K4520N14060
160 PSIG, 1/4" NPT (0 to 11.0 bar).....K4520N14160

Mounting Bracket Kit* (Includes Panel Mount Nut).....PS417BP

Panel Mount Nuts* – Plastic P78652
Metal P01531

Poppet / Piston Kits – Unbalanced, Non-Relieving.....PS428P
Unbalanced, Relieving.....PS426P

Springs – 1-15 PSIG Range (Yellow)..... P01176
1-30 PSIG Range (Black)..... P01175
1-60 PSIG Range (White) P01174
2-125 PSIG Range (Gold) P01173

*Tighten panel mount nut 2.8 to 3.4 Nm (25 to 30 in-lbs) of torque.

Specifications

Gauge Ports (2) .....1/8 or 1/4 Inch
(Can be used for Full Flow)

Port Threads .....1/8, 1/4 Inch

Pressure & Temperature Ratings – 0 to 300 PSIG (0 to 20.7 bar)
32°F to 125°F (0°C to 52°C)
Low Temperature .....-4°F to 125°F (-20°C to 52°C)

Secondary Pressure Ranges –
Standard Pressure.....2 to 125 PSIG (0 to 8.6 bar)
Medium Pressure.....1 to 60 PSIG (0 to 4.1 bar)
Medium Pressure.....1 to 30 PSIG (0 to 2.1 bar)
Low Pressure .....1 to 15 PSIG (0 to 1 bar)

Weight – 14R, 14RM, 14**L*..... 0.3 lb. (0.14 kg)

Materials of Construction

Adjusting Nut.....Brass

Adjusting Stem & Spring .....Steel

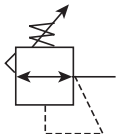
Body ..... Zinc

Bonnet, Seat, Piston & Valve Poppet ..... Plastic

Seals .....Nitrile

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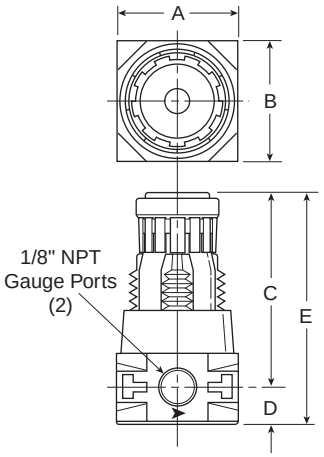
P3A-R Regulators – Miniature





Features

- Lightweight plastic body.
- Non-rising adjusting knob.
- Solid control piston with lip seal for extended life.
- Unbalanced poppet standard.
- Two full flow 1/8" gauge ports.
- Reverse flow capability.
- High Flow: 1/8" – 13 SCFM§
  1/4" – 15 SCFM§



Port Size	NPT
Without Gauge	
1/8"	**P3A-RN91YNN**
1/4"	**P3A-RN92YNN**
With Gauge	
1/8"	**P3A-RN91YGN**
1/4"	**P3A-RN92YGN**

Standard part numbers shown bold. For other models refer to ordering information below.

NOTE: 1.218 Dia. (31mm) hole required for panel mounting.

§ SCFM = Standard cubic feet per minute at 100 PSIG inlet, 90 PSIG no flow secondary setting and 10 PSIG pressure drop.

P3A-R Regulator Dimensions		
A 1.57 (40)	**B** 1.57 (40)	**C** 2.46 (63)
D 0.46 (12)	**E** 2.92 (74)	

Inches (mm)

Ordering Information

P3A-RN	9	1	Y	N	N	N	—

Port Type
- **9 NPT Female**

Port Size
- **1 1/8 Inch**
- **2 1/4 Inch**

Relief
- **Q Non-Relieving**
- **Y Relieving**

Pressure / Gauge

Without Gauge
- **A 15 PSIG (0 to 1 bar)**
- **L 60 PSIG (0 to 4 bar)**
- **N 120 PSIG (0 to 8 bar)**
- **Y 30 PSIG (0 to 2 bar)**

With Gauge
- **B 15 PSIG (0 to 1 bar)**
- **G 120 PSIG (0 to 8 bar)**
- **M 60 PSIG (0 to 4 bar)**
- **Z 30 PSIG (0 to 2 bar)**

Options
- L* Preset Non-Adjustable
- **N No Options**
- P* Preset Adjustable
- S* Pressure Limiter Adjustable
- T* Pressure Limiter Non-Adjustable

* Inlet Pressure is 100 PSIG. For other pressures, contact factory.

Options
- **N None**

Preset / Pressure Limited
- **Blank None**
- XXX* Preset Pressure
- XXX* Pressure Limited

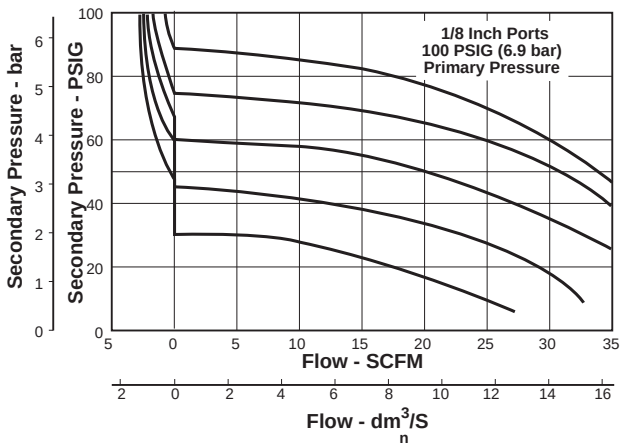
* Available Preset / Pressure Limited Range, 10 to 90 PSIG in 5 PSIG increments. For higher pressures, contact factory. (Example: 065 = 65 PSIG)

BOLD ITEMS ARE MOST POPULAR.

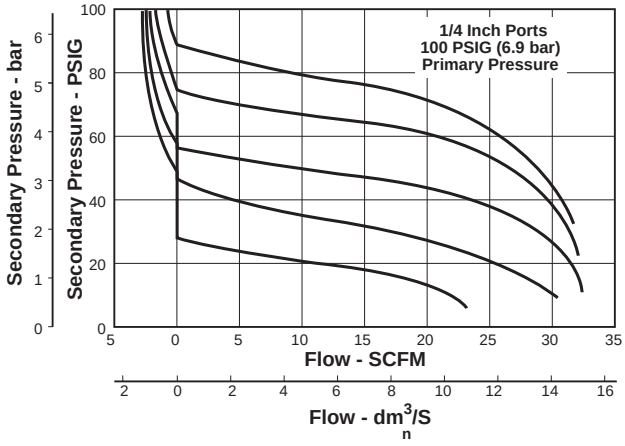
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Technical Information

Relief And Flow Characteristics
P3A-RN91YNN



Relief And Flow Characteristics
P3A-RN92YNN



CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

⚠ WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

P3AR Regulator Kits & Accessories

Gauges – 30 PSIG, 1/8" NPT (0 to 2.1 bar) K4515N18030
60 PSIG, 1/8" NPT (0 to 4.1 bar) K4515N18060
160 PSIG, 1/8" NPT (0 to 11.0 bar) K4515N18160

Mounting Bracket Kit* (Includes Panel Mount Nut) PS417BP

Panel Mount Nut* P78652

Poppet / Piston Kits – Unbalanced, Non-Relieving PS428P
Unbalanced, Relieving PS426P

Springs – 1-15 PSIG Spring (Yellow) P01176
1-30 PSIG Spring (Black) P01175
1-60 PSIG Spring (White) P01174
5-110 PSIG Spring (Gold) P01173

*Tighten panel mount nut 2.8 to 3.4 Nm (25 to 30 in-lbs) of torque.

Specifications

Gauge Ports (2) ..... 1/8 Inch

Operating Pressure Range –		**PSIG**	**bar**
Primary –	Maximum	120	8.3
Secondary –			
15 PSIG Spring	Minimum	1	0.07
	Maximum	15	1.0
30 PSIG Spring	Minimum	6	0.4
	Maximum	30	2.1
60 PSIG Spring	Minimum	6	0.4
	Maximum	60	4.1
110 PSIG Spring	Minimum	6	0.4
	Maximum	110	7.6

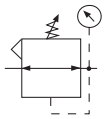
Operating Temperature Range ..... 32°F to 125°F (0°C to 52°C)
Port Threads ..... 1/8, 1/4 Inch
Weight ..... 0.23 lb. (0.10 kg)

Materials of Construction

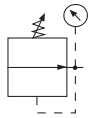
Adjusting Nut ..... Brass
Adjusting Stem & Spring ..... Steel
Poppet Return Spring ..... Stainless Steel
Body ..... Plastic
Bonnet, Seat & Piston ..... Plastic
Seals ..... Nitrile
Valve Poppet ..... Plastic & Nitrile

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R34 Regulators – Miniature



Relieving



Non-Relieving



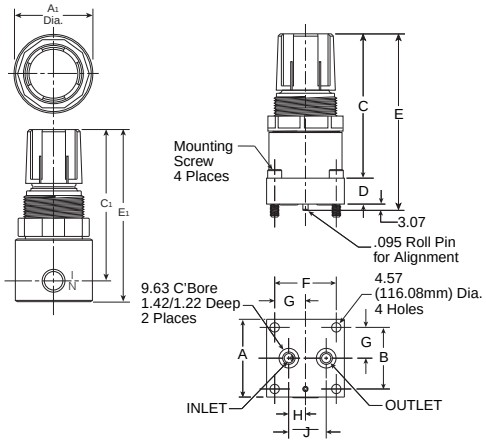
R344-02C



R342-0MC

Features

- Diaphragm operated for fast operation.
- Large Diaphragm to valve area ratio for precise regulation and high flow capacity.
- Balanced valve design for precise regulation.
- Available in 2 or 4 port design.
- Available with a manifold mount to minimize plumbing.
- Suitable for low temperature applications.
- Non-rising adjusting knob.
- 1/8" - 17 SCFM*
- 1/4" - 19 SCFM*



R34 Miniature Regulator Dimensions			
A 1.50 (38.1)	**A1** 1.56 (39.7)	**B** 1.20 (30.18)	**B1** 1.56 (39.7)
C 2.75 (69.92)	**C1** 2.70 (68.7)	**D** 0.50 (12.7)	**E** 3.25 (82.62)
E1 3.25 (82.62)	**F** 1.20 (30.18)	**G** 0.60 (15.09)	**H** 0.32 (8.26)
J 0.73 (18.42)			

Model Type	Port Size	Without Gauge 0 to 30 PSIG (0.0 to 2.1 bar)	Without Gauge 0 to 60 PSIG (0.0 to 4.1 bar)	Without Gauge 0 to 125 PSIG (0.0 to 8.6 bar)	With Gauge 0 to 30 PSIG (0.0 to 2.1 bar)	With Gauge 0 to 60 PSIG (0.0 to 4.1 bar)	With Gauge 0 to 125 PSIG (0.0 to 8.6 bar)
Relieving	1/8"	R344-01A	R344-01B	R344-01C	R344-01AG	R344-01BG	R344-01CG
	1/4"	R344-02A	R344-02B	**R344-02C**	R344-02AG	R344-02BG	**R344-02CG**
	Manifold Mount	R342-0MA	R342-0MB	**R342-0MC**			

* SCFM = Standard cubic feet per minute at 100 PSIG inlet, 90 PSIG no flow secondary setting and 10 PSIG pressure drop.

Ordering Information

R34	4	–	02	C	G

Number of Ports
2 2 Ports
4* 4 Ports

* Not Available with Manifold Mount.

Thread
- NPT
G BSPP

Port
01 1/8"
02 1/4"
0M Manifold Mount

Pressure Range
A 0-30 PSI
B 0-60 PSI
C 0-125 PSI

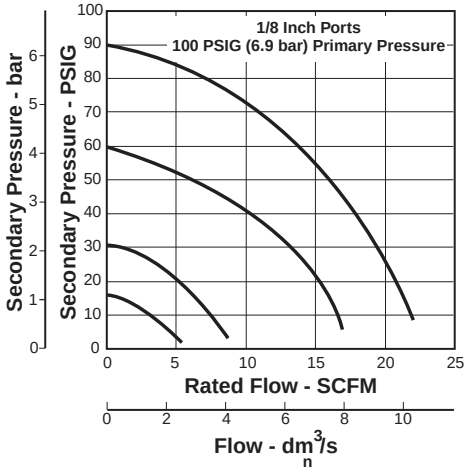
Options
Blank No Options
G Gauge
K Non-Relieving Diaphragm
P Panel Mount Nut
T Tamperproof

BOLD ITEMS ARE MOST POPULAR.

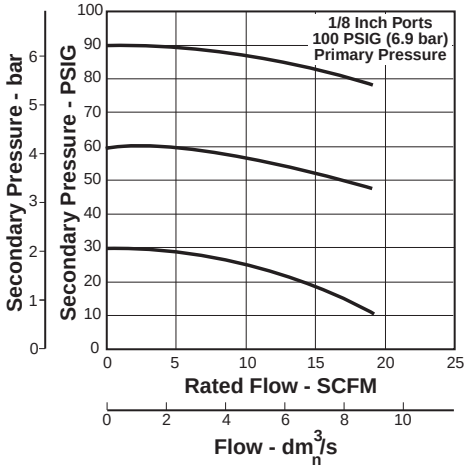
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Technical Information

Relief And Flow Characteristics
R342-0MC



Relief And Flow Characteristics
R344-01C



CAUTION:

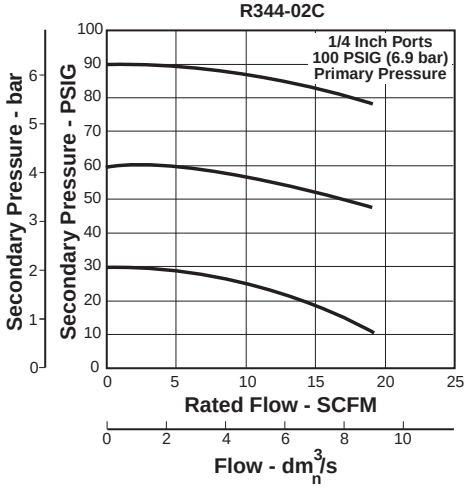
REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

⚠ WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

Relief And Flow Characteristics
R344-02C



R34 Regulator Kits and Accessories

Adjusting Knob PS487

Diaphragm Assembly – Non-relieving PS480
Relieving PS481

Spring, Regulating – 0 to 30 PSIG (0 to 2.1 bar) PS482
0 to 60 PSIG (0 to 4.1 bar) PS483
0 to 125 PSIG (0 to 8.6 bar) PS484

Valve Assembly PS485

Valve Spring PS486

Panel Mount Nut – Aluminum PS488
Plastic PS489

Gauges – 0 to 60 PSIG (0 to 4.1 bar), 1-1/2" Dial Face,
1/8 NPT, CBM K4515N18060
0 to 160 PSIG (0 to 11.0 bar), 1-1/2" Dial Face,
1/8 NPT, CBM K4515N18160

Tamper Resistant Kit PS490

Materials of Construction

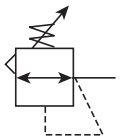
Body ..... Aluminum
Bonnet ..... Acetal
Diaphragm & Seals ..... Nitrile
Valve Assembly ..... Brass
Springs ..... Steel
Panel Nut ..... Acetal

Specifications

Operating Temperature ..... -40° F to 150°F (-40° C to 65.5°C)
Supply Pressure ..... 300 PSIG Maximum (20.4 bar)
Port Threads ..... 1/8, 1/4 Inch
Gauge Ports ..... (2) Std 1/8 Inch
(No Gauge Port Version Available)
Weight ..... 25 lbs. (0.11 kg)

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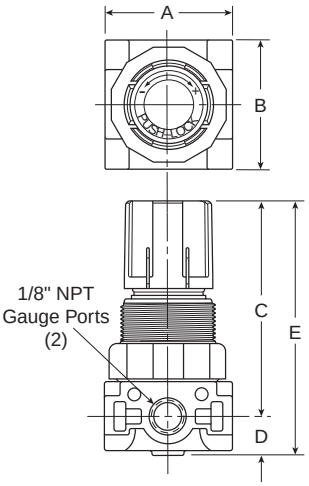
R24, R25 Regulators – Miniature (Air / Water Service)





Features

- Lightweight Plastic Body
- Constructed with a Combination of N.S.F. and F.D.A. Approved Materials
- Unbalanced Poppet Standard
- Non-rising, Push-to-lock Adjusting Knob
- Compact, 3.10 inch (79mm) high by 1.60 inch (41mm) wide
- Lightweight
- Diaphragm Operated



Port Size	NPT	
	Air Service Relieving	Water Service Non-Relieving
	Relieving, 0-125 Reduced Pressure, Without Gauge	
1/8"	**R25-01C**	**R24-01CK**
1/4"	**R25-02C**	**R24-02CK**

Bold Items are Most Popular.
For other models refer to ordering information below.

NOTE: 1.250 Dia. (31.8mm) hole required for panel mounting.

R24, R25 Regulator Dimensions		
A 1.60 (41)	**B** 1.60 (41)	**C** 2.61 (66)
D 0.49 (13)	**E** 3.10 (79)	

Inches (mm)

Ordering Information

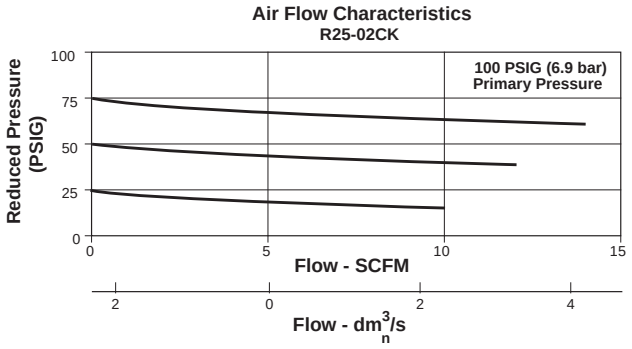
R25	—	02	C	

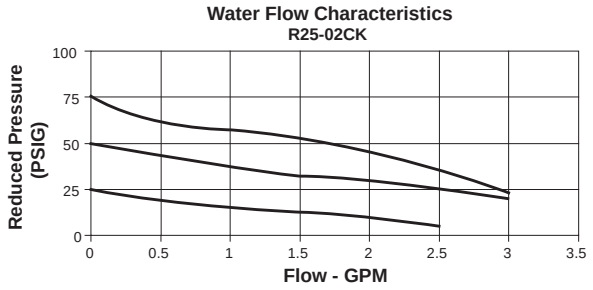
Series	Port Size	Pressure Range	Relief
R24 EPDM Elastomers (Water)	**01 1/8 Inch**	**A 0 to 25 PSIG (0 to 2 bar)**	**Blank Relieving**
R25 Buna Elastomers (Air)	**02 1/4 Inch**	**B 0 to 60 PSIG (0 to 4 bar)**	K Non-Relieving (For Water Service)
		C 0 to 125 PSIG (0 to 8 bar)	P Panel Mount Nut

BOLD ITEMS ARE MOST POPULAR.

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Technical Information





CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

⚠ WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

R24, R25 Regulator Kits and Accessories

Panel Mount Nut – Plastic R05X51
Aluminum R05X51A

Mounting Bracket and Nut SA161X57

Service Kits – Relieving (Buna) RKR25Y
Non-Relieving (Buna) RKR25KY
Relieving (EPDM) RKR24Y
Non-Relieving (EPDM) RKR24KY

Springs – 0-25 PSIG Spring SPR-375-1
0-60 PSIG Spring SPR-376
0-125 PSIG Spring SPR-377

Specifications

Gauge Ports (2) ..... 1/8 Inch (Can be used for full flow)

Pressure Rating – Maximum Inlet Pressure 150 PSIG ..... (10.0 bar)

Port Threads ..... 1/8, 1/4 Inch

Temperature Rating ..... 40°F to 125°F (4°C to 52°C)

Weight ..... 0.25 lb. (0.11 kg)

Materials of Construction

Adjusting Screw ..... Steel

Body ..... Acetal

Bonnet and Seat ..... Acetal

Diaphragm (R25) ..... Buna N

Diaphragm (R24) ..... EPDM

Seals (R25) ..... Buna N

Seals (R24) ..... EPDM

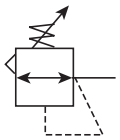
Springs ..... Stainless Steel

Valve Poppet (R25) ..... Buna N

Valve Poppet (R24) ..... EPDM

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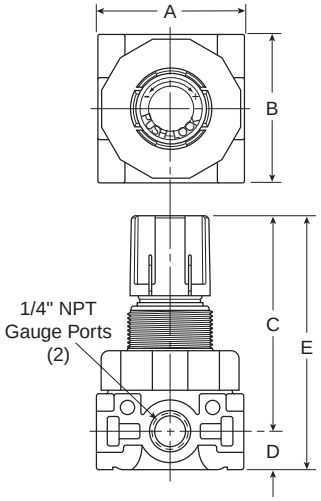
R45, R46 Regulators – Miniature (Air / Water Service)





Features

- Lightweight Plastic Body
- Constructed with a Combination of N.S.F. and F.D.A. Approved Materials
- Unbalanced Poppet Standard
- Non-rising, Push-to-lock Adjusting Knob
- Compact, 3.43 inch (87.1mm) high by 2.06 inch (52.3mm) wide
- Lightweight
- Diaphragm Operated



Port Size	NPT	
	Air Service Relieving	Water Service Non-Relieving
	Relieving, 0-125 Reduced Pressure, Without Gauge	
1/4"	**R45-02C**	**R46-02CK**
3/8"	**R45-03C**	**R46-03CK**

Bold Items are Most Popular.
For other models refer to ordering information below.

NOTE: 1.250 Dia. (31.8mm) hole required for panel mounting.

R45, R46 Regulator Dimensions		
A 2.06 (52)	**B** 2.06 (52)	**C** 2.90 (74)
D 0.53 (14)	**E** 3.43 (87)	

Inches (mm)

Ordering Information

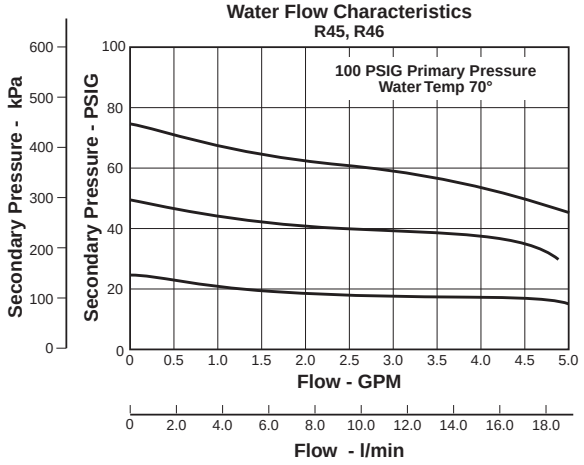
R45	—	02	C	

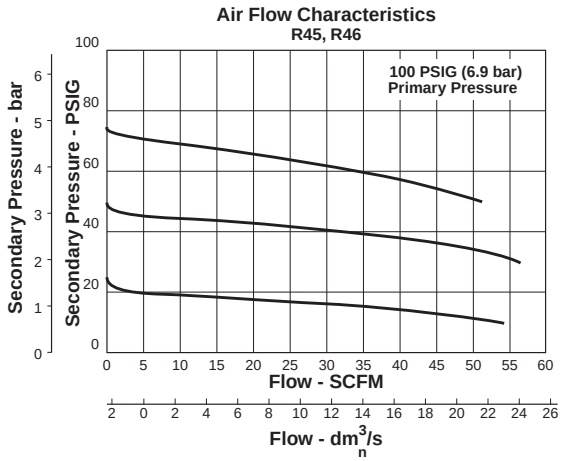
Series	Port Size	Pressure Range	Relief
R45 Buna Elastomers (Air)	**02 1/4 Inch**	**A 0 to 25 PSIG (0 to 2 bar)**	**Blank Relieving**
R46 EPDM Elastomers (Water)	**03 3/8 Inch**	**B 0 to 60 PSIG (0 to 4 bar)**	K Non-Relieving (For Water Service)
		C 0 to 125 PSIG (0 to 8 bar)	P Panel Mount Nut

BOLD ITEMS ARE MOST POPULAR.

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Technical Information





CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

⚠ WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

R45, R46 Regulator Kits and Accessories

Panel Mount Nut – Plastic R05X51
Aluminum R05X51A
Mounting Bracket and Nut SA161X57
Service Kits – Relieving RKR45Y
Non-Relieving RKR45KY
Springs – 0-25 PSIG Spring SPR-46
0-60 PSIG Spring SPR-47
0-125 PSIG Spring SPR-48

Specifications

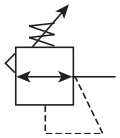
Gauge Ports (2) ..... 1/4 Inch
(Can be used for full flow)
Pressure Rating – Maximum Inlet Pressure 150 PSIG .....(10.0 bar)
Port Threads ..... 1/4, 3/8 Inch
Temperature Rating ..... 40°F to 125°F (4°C to 52°C)
Weight .....0.38 lb. (0.17 kg)

Materials of Construction

Adjusting Screw ..... Steel
Body ..... Acetal
Bonnet and Seat ..... Acetal
Diaphragm (R45) ..... Buna N
Diaphragm (R46) ..... EPDM
Seals (R45) ..... Buna N
Seals (R46) ..... EPDM
Springs ..... Stainless Steel
Valve Poppet (R45) ..... Buna N
Valve Poppet (R46) ..... EPDM

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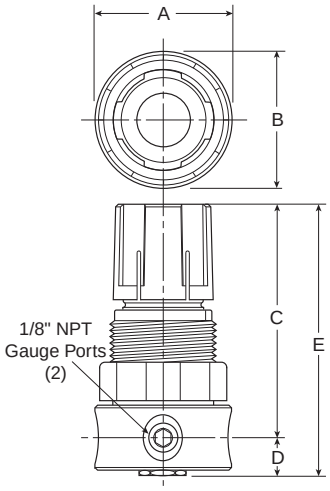
20R Regulators – Miniature (Water Service)





Features

- Rugged brass body for water service.
- Unbalanced poppet standard.
- Diaphragm operated for fast response.
- Non-rising adjusting knob.
- Compact, 3.06 inch (77.79mm) high by 1.56 inch (36.69mm) wide.
- High Flow: 1.25 GPM



Port Size	NPT
Without Gauge	
1/8"	**20R013G***
1/4"	**20R113G***

Bold Items are Most Popular.
For other models refer to ordering information below.

NOTE: 1.25 Dia. (32mm) hole required for panel mounting.

20R Regulator Dimensions		
A 1.56 (40)	**B** 1.56 (40)	**C** 2.56 (65)
D 0.50 (13)	**E** 3.06 (78)	

Inches (mm)

Ordering Information

20R	1	13	G	*	—

Port Size
0 1/8 Inch
1 1/4 Inch

Pressure Range
11 25 PSIG
13 125 PSIG
61 60 PSIG

Relief
F Relieving
G Non-Relieving

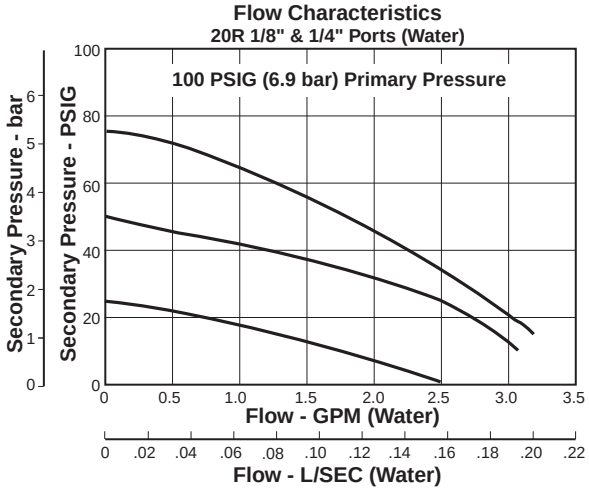
Engineering Level
* Will be Entered at Factory

Port Type	
Blank	**NPT**
1	BSPP

BOLD ITEMS ARE MOST POPULAR.

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Technical Information



CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

⚠ WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

20R Regulator Kits & Accessories

Bonnet Kit PCKR364Y
Bonnet Tamperproof Kit PCKR364T
Panel Mount Nut PR05X51
Mounting Bracket Kit SA161X57
Repair Kits – Relieving PRKR164Y
Non-Relieveing PRKR163Y

Specifications

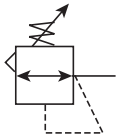
Gauge Ports (2) ..... 1/8 Inch
Port Threads ..... 1/8, 1/4 Inch
Pressure Rating – Maximum ..... 0 to 300 PSIG (0 to 20.7 bar)
Secondary Pressure Ranges –
Standard Pressure ..... 2 to 125 PSIG (0 to 8.6 bar)
Medium Pressure ..... 1 to 60 PSIG (0 to 4.1 bar)
Medium Pressure ..... 1 to 25 PSIG (0 to 2.1 bar)
Temperature Ratings ..... 32°F to 125°F (0°C to 52°C)
Weight ..... 0.5 lb. (0.23 kg)

Materials of Construction

Adjusting Nut & Stem ..... Steel
Body, Valve Poppet, Bottom Plug, Diaphragm Button ..... Brass
Bonnet, Knob ..... Plastic
Seals, Diaphragm ..... Buna N
Springs ..... Steel

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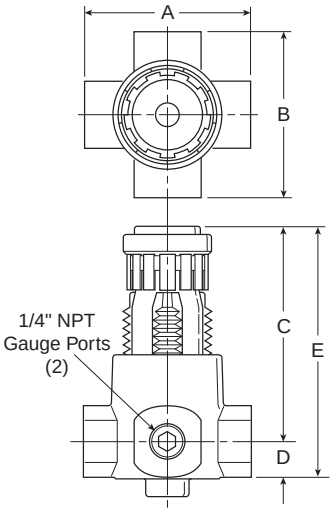
15R Regulators – Economy





Features

- Solid control piston with resilient seat for service-free operation.
- Non-rising “locking” adjusting knob.
- Compact, 3.30 inch (84mm) high by 2.12 inch (54mm) wide.
- Easily serviced.
- High Flow: 1/4" – 21 SCFM§
  3/8" – 28 SCFM§



Port Size	NPT
Without Gauge	
1/4"	**15R113F***
3/8"	**15R213F***
With Gauge	
1/4"	**15R118F***
3/8"	**15R218F***

Standard part numbers shown bold. For other models refer to ordering information below.

NOTE: 1.218 Dia. (31mm) hole required for panel mounting.

§ SCFM = Standard cubic feet per minute at 100 PSIG inlet, 90 PSIG no flow secondary setting and 10 PSIG pressure drop.

15R Regulator Dimensions		
A 2.12 (54)	**B** 2.00 (51)	**C** 2.60 (66)
D 0.70 (18)	**E** 3.30 (84)	

Inches (mm)

Ordering Information

15R	1	13	F	*

Port Size
- **1 1/4 Inch**
- **2 3/8 Inch**

Pressure Range

Without Gauge
- 10 30 PSIG
- 11 60 PSIG
- 12 15 PSIG
- **13 125 PSIG**

With Gauge
- 15 30 PSIG
- 16 60 PSIG
- 17 15 PSIG
- **18 125 PSIG**

Relief
- **F Relieving**
- G Non-Relieving
- H Low Temp. Relieving
- J Low Temp. Non-Relieving

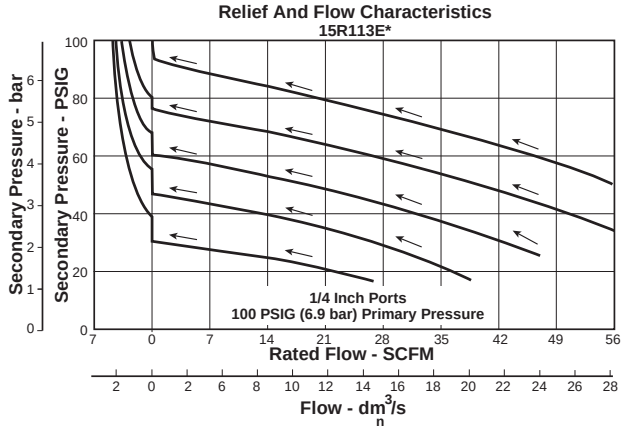
Engineering Level
- * Will be Entered at Factory

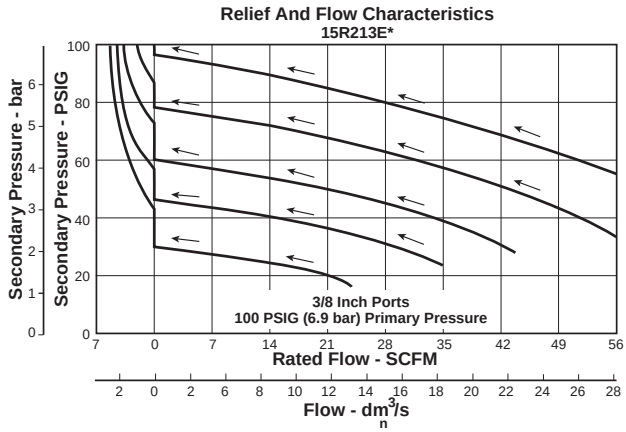
BOLD ITEMS ARE MOST POPULAR.

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A

Technical Information





CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

⚠ WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

15R Regulator Kits & Accessories

Body Service Kit – Unbalanced PS424BP

Bonnet Assembly Kit L01369

Gauges – 30 PSIG, 1/8" NPT (0 to 2.1 bar) K4515N18030
60 PSIG, 1/8" NPT (0 to 4.1 bar) K4515N18060
160 PSIG, 1/8" NPT (0 to 11.0 bar) K4515N18160
60 PSIG, 1/4" NPT (0 to 4.1 bar) K4520N14060
160 PSIG, 1/4" NPT (0 to 11.0 bar) K4520N14160

Mounting Bracket Kit* (Includes Panel Mount Nut) PS417BP

Panel Mount Nuts* – Plastic P78652
Metal P01531

Service Kits – Non-Relieving PS422P
Relieving PS423P

Springs – 1-15 PSIG Range (Yellow) P01176
1-30 PSIG Range (Black) P01175
1-60 PSIG Range (White) P01174
2-125 PSIG Range (Gold) P01173

*Tighten panel mount nut 2.8 to 3.4 Nm (25 to 30 in-lbs) of torque.

Specifications

Gauge Ports (2) ..... 1/4 Inch
(Can be used for Full Flow)

Port Threads ..... 1/4, 3/8 Inch

Pressure & Temperature Ratings – 0 to 250 PSIG (0 to 17.2 bar)
32°F to 125°F (0°C to 52°C)
Low Temperature ..... -4°F to 125°F (-20°C to 52°C)

Secondary Pressure Ranges –
Standard Pressure ..... 2 to 125 PSIG (0 to 8.6 bar)
Medium Pressure ..... 1 to 60 PSIG (0 to 4.1 bar)
Medium Pressure ..... 1 to 30 PSIG (0 to 2.1 bar)
Low Pressure ..... 1 to 15 PSIG (0 to 1 bar)

Weight ..... 0.5 lb. (0.23 kg)

Materials of Construction

Adjusting Nut ..... Brass

Adjusting Stem & Spring ..... Steel

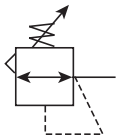
Body ..... Zinc

Bonnet, Seat, Piston & Valve Poppet ..... Plastic

Seals ..... Nitrile

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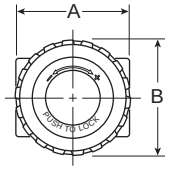
05R Regulators – Economy

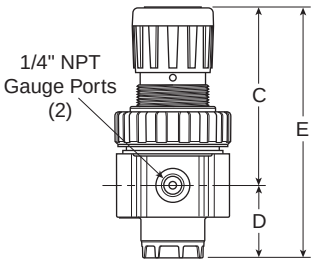




Features

- Secondary aspiration plus balanced poppet provides quick response and accurate pressure regulation.
- Rolling diaphragm for extended life.
- Removable non-rising knob for panel mounting and tamper resistance.
- Easily serviced.
- Reverse Flow.
- High Flow: 1/4" – 30 SCFM§
  3/8" – 40 SCFM§





Port Size	NPT
Without Gauge	
1/4"	**05R113A***
3/8"	**05R213A***
With 160 PSI Gauge	
1/4"	**05R118A***
3/8"	**05R218A***

Standard part numbers shown bold. For other models refer to ordering information below.

NOTE: 1.53 Dia. (39mm) hole required for panel mounting.

§ SCFM = Standard cubic feet per minute at 100 PSIG inlet, 90 PSIG no flow secondary setting and 10 PSIG pressure drop.

05R Regulator Dimensions		
A 2.00 (51)	**B** 2.06 (52)	**C** 3.16 (80)
D 1.28 (32)	**E** 4.44 (113)	

Inches (mm)

Ordering Information

05R	1	13	A	*	—	—	---

Port Size
- **1 1/4 Inch**
- **2 3/8 Inch**

Pressure Range

Without Gauge
- 10 30 PSIG
- **11 60 PSIG**
- **13 125 PSIG**
- 14 200 PSIG

With Gauge**
- 17 30 PSIG
- **16 60 PSIG**
- **18 125 PSIG**
- 19 200 PSIG

** Includes 1-1/2" Dial Face Gauge

Relief
- **A Relieving**
- L Non-Relieving
- H Low Temp. Relieving
- J Low Temp. Non-Relieving

Engineering Level
- * Will be Entered at Factory

Port Type
- **Blank NPT**
- 1* BSPP
- 2 BSPT

* 1/4 & 3/8 inch meet ISO 1179-1 Standard.

Options
- **Blank No Options**
- L† Preset Non-Adjustable
- P† Preset Adjustable
- S† Pressure Limiter Max. Adjustable
- T† Pressure Limiter Max. Non- Adjustable

† Inlet Pressure is 100 PSIG. For other pressures, contact factory.

Preset / Pressure Limited
- **Blank None**
- XXX* Preset Pressure
- XXX* Pressure Limited

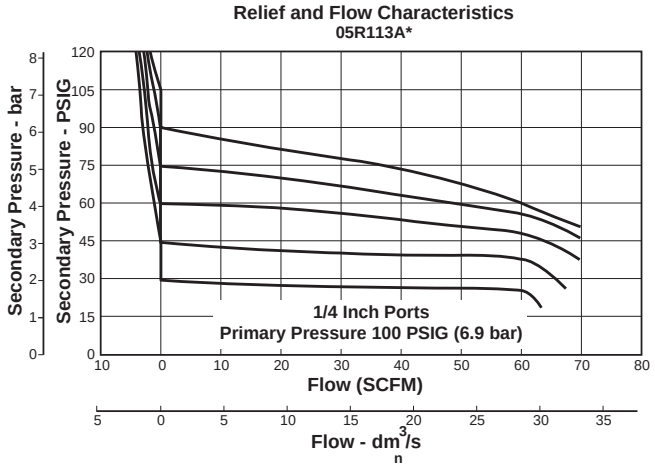
* Available Preset / Pressure Limited Range, 10 to 90 PSIG in 5 PSIG increments. For higher pressures, contact factory. (Example: 065 = 65 PSIG)

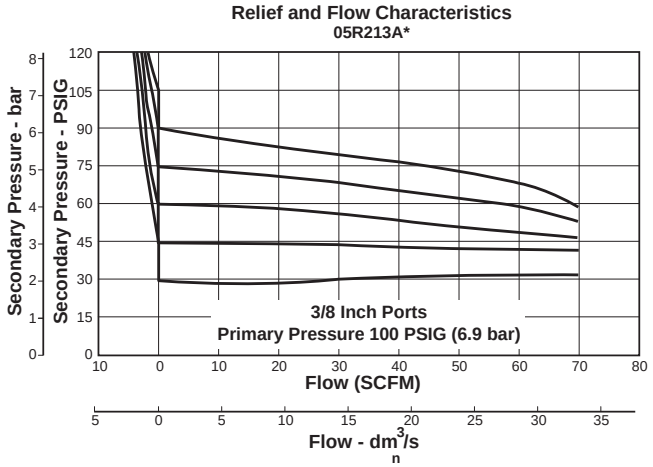
Spring Type by Preset / Limited Pressure:
For Preset / Limited Pressure 10 to 25 use 30 PSI Spring
For Preset / Limited Pressure 26 to 50 use 60 PSI Spring
For Preset / Limited Pressure 51 to 90 use 125 PSI Spring

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Technical Information





CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

⚠ WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

05R Regulator Kits & Accessories

Bonnet Assembly Kit PS915P
Control Knob P04420
Gauges – 1-1/2" Dial Face
30 PSIG (0 to 2.1 bar) K4515N14030
60 PSIG (0 to 4.1 bar) K4515N14060
160 PSIG (0 to 11.0 bar) K4515N14160
300 PSIG (0 to 20.0 bar) K4515N14300
2" Dial Face
60 PSIG (0 to 4.1 bar) K4520N14060
160 PSIG (0 to 11.0 bar) K4520N14160
300 PSIG (0 to 20.0 bar) K4520N14300
Mounting Bracket Kit PS963P
Panel Mount Nut – Metal PS964P
Pressure Sensor – MPS-32 ..... (See pages C32-C38)
Springs – 1-30 PSIG Range P04427
1-60 PSIG Range P04426
2-125 PSIG Range P04425
2-200 PSIG P02934
Service Kit – Relieving PS908P
Non-Relieving PS909P

Specifications

Gauge Ports (2) ..... 1/4 Inch
Port Threads ..... 1/4, 3/8 Inch
Primary Pressure Rating –
Maximum Primary Pressure ..... 300 PSIG (17.2 bar) Max.
For Secondary Pressure Ranges see above charts.
Temperature Rating ..... 32°F to 175°F (0°C to 80°C)
Low Temperature ..... -4°F to 125°F (-20°C to 52°C)
Weight ..... 1.1 lb. (0.49 kg)

Materials of Construction

Adjusting Stem ..... Brass
Bonnet ..... Plastic
Body ..... Zinc
Collar, Knob ..... Plastic
Diaphragm ..... Nitrile
Poppet & Cap ..... Plastic
Seals ..... Nitrile
Springs – Poppet & Control ..... Steel

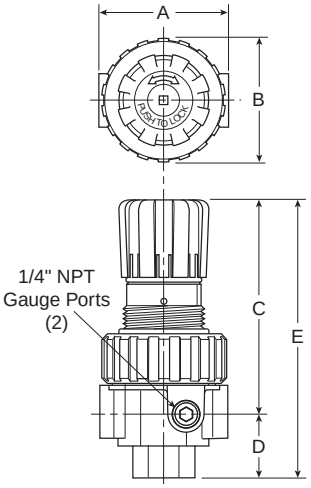
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06R Regulators – Compact



Features

- Secondary aspiration plus balanced poppet provides quick response and accurate pressure regulation.
- Rolling diaphragm for extended life.
- Two high flow 1/4" gauge ports can be used as additional outlets.
- Easily serviced.
- Removable non-rising knob for panel mounting and tamper resistance.
- High Flow: 1/4" – 53 SCFM§
  3/8" – 60 SCFM§
  1/2" – 75 SCFM§



Port Size	NPT
Without Gauge	
1/4"	**06R113A***
3/8"	**06R213A***
1/2"	**06R313A***
With 160 PSI Gauge	
1/4"	**06R118A***
3/8"	**06R218A***
1/2"	**06R318A***

Standard part numbers shown bold. For other models refer to ordering information below.

NOTE: 2.00 Dia. (51mm) hole required for panel mounting.

§ SCFM = Standard cubic feet per minute at 100 PSIG inlet, 90 PSIG no flow secondary setting and 10 PSIG pressure drop.

06R Regulator Dimensions		
A 2.81 (71)	**B** 2.74 (70)	**C** 4.69 (119)
D 1.39 (35)	**E** 6.08 (154)	

Inches (mm)

⚠ WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

Ordering Information

06R	1	13	A	*	—	—	---

Port Size
- **1 1/4 Inch**
- **2 3/8 Inch**
- **3 1/2 Inch**

Pressure Range
- Without Gauge
- **11 60 PSIG**
- **13 125 PSIG**
- 15 250 PSIG
- With Gauge**
- **16 60 PSIG**
- **18 125 PSIG**
- 21 250 PSIG

** Includes 1-1/2" Dial Face Gauge

Relief
- **A Relieving**
- L Non-Relieving
- H Low Temp. Relieving
- J Low Temp. Non-Relieving

Engineering Level
- * Will be Entered at Factory

Port Type
- **Blank NPT**
- 1* BSPP
- 2 BSPT

* 1/4 & 3/8 inch meet ISO 1179-1 Standard.

Options
- **Blank No Options**
- L† Preset Non-Adjustable
- P† Preset Adjustable
- R Reverse Flow

† Inlet Pressure is 100 PSIG. For other pressures, contact factory.

Preset / Pressure Limited
- **Blank None**
- XXX* Preset Pressure

* Available Preset / Pressure Limited Range, 10 to 90 PSIG in 5 PSIG increments. For higher pressures, contact factory.
(Example: 065 = 65 PSIG)

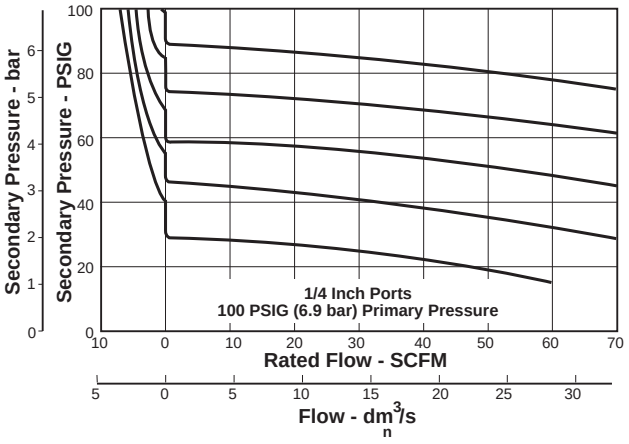
Spring Type by Preset / Limited Pressure:
For Preset / Limited Pressure 10 to 25 use 30 PSI Spring
For Preset / Limited Pressure 26 to 50 use 60 PSI Spring
For Preset / Limited Pressure 51 to 90 use 125 PSI Spring

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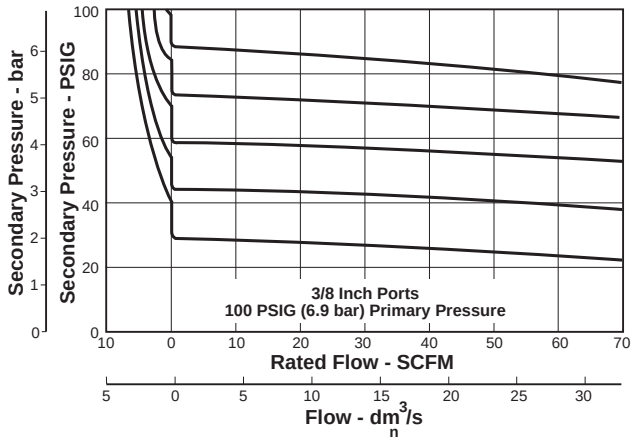
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Technical Information

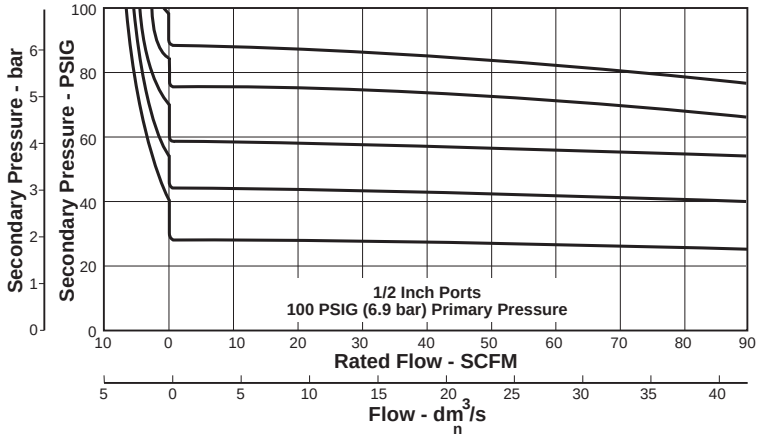
Relief And Flow Characteristics
06R113A*



Relief And Flow Characteristics
06R213A*



Relief And Flow Characteristics
06R313A*



CAUTION:

REGULATOR PRESSURE ADJUSTMENT –
The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

06R Regulator Kits & Accessories

Bonnet Assembly Kit PS715P

Control Knob P04069B

Gauges – 60 PSIG (0 to 4.1 bar) K4520N14060
160 PSIG (0 to 11.0 bar) K4520N14160
300 PSIG (0 to 20.0 bar) K4520N14300

Mounting Bracket Kit (Includes Panel Mount Nut) PS707P

Panel Mount Nut – Plastic P04082
Metal P04079B

Pressure Sensor – MPS-32 ..... (See pages C32-C38)

Reverse Flow Service Conversion Kit –
Relieving PS708RP

Service Kit – Relieving (Includes Poppet) PS708P
Non-Relieving (Includes Poppet) PS709P

Springs – 1-30 PSIG Range P01698
1-60 PSIG Range P04062
2-125 PSIG Range P04063
5-250 PSIG Range P04064

Tamperproof Kit PS737P

Specifications

Gauge Ports (2) ..... 1/4 Inch
(Can be used as additional High Flow 1/4 Inch Outlet Ports)

Port Threads ..... 1/4, 3/8, 1/2 Inch

Primary Pressure Rating –
Maximum Primary Pressure ..... 250 PSIG (17.2 bar)

Secondary Pressure Ranges –
Standard Pressure ..... 2 to 125 PSIG (0 to 8.6 bar)
Low Pressure ..... 1 to 60 PSIG (0 to 4.1 bar)
High Pressure ..... 5 to 250 PSIG (0.4 to 17.2 bar)

Temperature Rating ..... 32°F to 175°F (0°C to 80°C)
Low Temperature ..... -4°F to 125°F (-20°C to 52°C)

Weight ..... 1.6 lb. (0.7 kg)

Materials of Construction

Adjusting Stem ..... Steel

Body ..... Zinc

Bonnet, Piston Stem, Valve Poppet & Cap ..... Plastic

Collar, Knob ..... Plastic

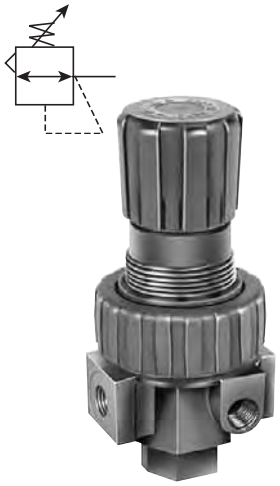
Diaphragm ..... Nitrile

Seals ..... Nitrile

Springs – Poppet ..... Stainless
Control ..... Steel

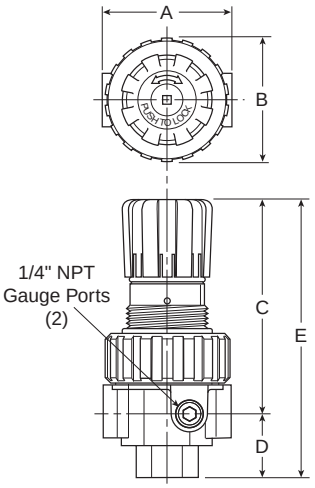
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07R Regulators – Standard



Features

- Secondary aspiration plus balanced poppet provides quick response and accurate pressure regulation.
- Rolling diaphragm for extended life.
- Two high flow 1/4" gauge ports can be used as additional outlets.
- Easily serviced.
- Removable non-rising knob for panel mounting and tamper resistance.
- High Flow: 3/8" – 70 SCFM§
  1/2" – 90 SCFM§
  3/4" – 90 SCFM§



Port Size	NPT
Without Gauge	
3/8"	**07R213A***
1/2"	**07R313A***
3/4"	**07R413A***
With 160 PSI Gauge	
3/8"	**07R218A***
1/2"	**07R318A***
3/4"	**07R418A***

Standard part numbers shown bold. For other models refer to ordering information below.

NOTE: 2.00 Dia. (51mm) hole required for panel mounting.

§ SCFM = Standard cubic feet per minute at 100 PSIG inlet, 90 PSIG no flow secondary setting and 10 PSIG pressure drop.

07R Regulator Dimensions		
A 3.24 (82)	**B** 2.74 (70)	**C** 4.79 (122)
D 1.61 (41)	**E** 6.40 (163)	

Inches (mm)

⚠ WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

Ordering Information

07R	3	13	A	*	—	—	---

Port Size
- **2 3/8 Inch**
- **3 1/2 Inch**
- **4 3/4 Inch**

Pressure Range
- Without Gauge
- **11 60 PSIG**
- **13 125 PSIG**
- 15 250 PSIG
- With Gauge**
- **16 60 PSIG**
- **18 125 PSIG**
- 21 250 PSIG

** Includes 1-1/2" Dial Face Gauge

Relief
- **A Relieving**
- L Non-Relieving
- H Low Temp. Relieving
- J Low Temp. Non-Relieving

Engineering Level
- * Will be Entered at Factory

Port Type
- **Blank NPT**
- 1* BSPP
- 2 BSPT

* 3/8 & 1/2 inch meet ISO 1179-1 Standard.

Options
- **Blank No Options**
- L† Preset Non-Adjustable
- P† Preset Adjustable
- R Reverse Flow

† Inlet Pressure is 100 PSIG. For other pressures, contact factory.

Preset / Pressure Limited
- **Blank None**
- XXX* Preset Pressure

* Available Preset / Pressure Limited Range, 10 to 90 PSIG in 5 PSIG increments. For higher pressures, contact factory.
(Example: 065 = 65 PSIG)

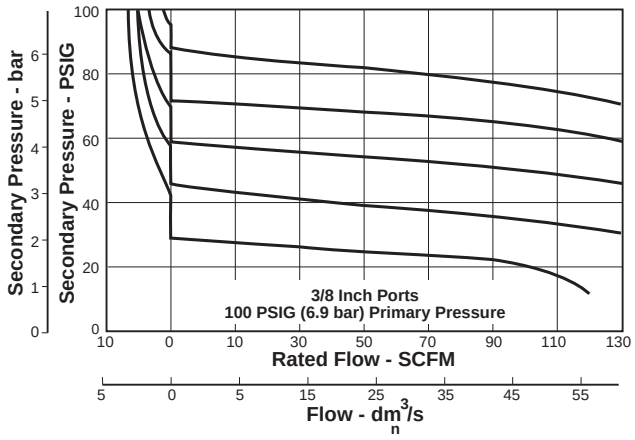
Spring Type by Preset / Limited Pressure:
For Preset / Limited Pressure 10 to 25 use 30 PSI Spring
For Preset / Limited Pressure 26 to 50 use 60 PSI Spring
For Preset / Limited Pressure 51 to 90 use 125 PSI Spring

BOLD ITEMS ARE MOST POPULAR.

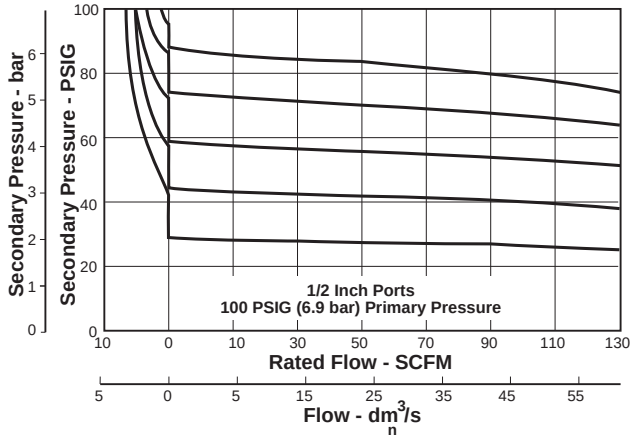
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Technical Information

Relief And Flow Characteristics
07R213A*



Relief And Flow Characteristics
07R313A*

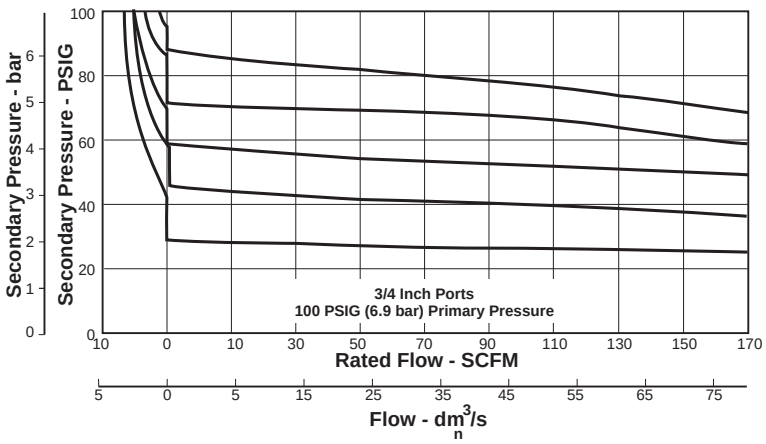


CAUTION:

REGULATOR PRESSURE ADJUSTMENT –
The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

Relief And Flow Characteristics
07R413A*



07R Regulator Kits & Accessories

Bonnet Assembly Kit PS715P

Control Knob P04069B

Gauges – 60 PSIG (0 to 4.1 bar) K4520N14060
160 PSIG (0 to 11.0 bar) K4520N14160
300 PSIG (0 to 20.0 bar) K4520N14300

Mounting Bracket Kit (Includes Panel Mount Nut) PS807P

Panel Mount Nut – Plastic P04082
Metal P04079B

Pressure Sensor – MPS-32 ..... (See pages C32-C38)

Reverse Flow Service Conversion Kit –
Relieving PS808RP

Service Kit – Relieving (Includes Poppet) PS808P
Non-Relieving (Includes Poppet) PS809P

Springs – 1-30 PSIG Range P01698
1-60 PSIG Range P04062
2-125 PSIG Range P04063
5-250 PSIG Range P04064

Tamperproof Kit PS737P

Specifications

Gauge Ports (2) ..... 1/4 Inch
(Can be used as additional High Flow 1/4 Inch Outlet Ports)

Port Threads ..... 3/8, 1/2, 3/4 Inch

Primary Pressure Rating –
Maximum Primary Pressure ..... 250 PSIG (17.2 bar)

Secondary Pressure Ranges –
Standard Pressure ..... 2 to 125 PSIG (0 to 8.6 bar)
Low Pressure ..... 1 to 60 PSIG (0 to 4.1 bar)
High Pressure ..... 5 to 250 PSIG (0.4 to 17.2 bar)

Temperature Rating ..... 32°F to 175°F (0°C to 80°C)
Low Temperature ..... -4°F to 125°F (-20°C to 52°C)

Weight ..... 2.5 lb. (1.1 kg)

Materials of Construction

Adjusting Stem ..... Steel

Body ..... Zinc

Bonnet, Piston Stem, Valve Poppet & Cap ..... Plastic

Collar, Knob ..... Plastic

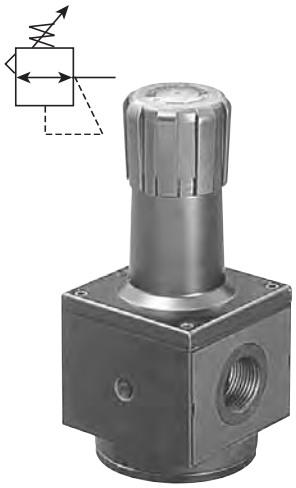
Diaphragm ..... Nitrile

Seals ..... Nitrile

Springs – Poppet ..... Stainless
Control ..... Steel

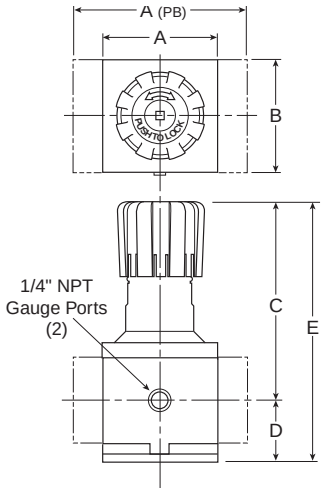
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P3NR Regulators – Hi-Flow



Features

- Port blocks (PB) available to provide 1-1/2" port extension to 1" ported bodies.
- Self relieving feature plus balanced poppet provides quick response and accurate pressure regulation.
- Solid control piston for extended life.
- High Flow: 3/4" – 200 SCFM§
  1" – 300 SCFM§
  1-1/2" – 300 SCFM§



Port Size	NPT
Without Gauge	
3/4"	**P3NRA96BNN**
1"	**P3NRA98BNN**
1-1/2"	**P3NRA9PBNN**
With 160 PSI Gauge	
3/4"	**P3NRA96BNG**
1"	**P3NRA98BNG**
1-1/2"	**P3NRA9PBNG**

Standard part numbers shown bold. For other models refer to ordering information below.

NOTE: 2.00 Dia. (51mm) hole required for panel mounting.

§ SCFM = Standard cubic feet per minute at 100 PSIG inlet, 90 PSIG no flow secondary setting and 10 PSIG pressure drop.

P3NR Regulator Dimensions		
A 3.62 (92)	**A (PB)** 5.91 (150)	**B** 3.62 (92)
C 6.38 (162)	**D** 2.08 (53)	**E** 8.46 (215)

Inches (mm)

⚠ WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

Ordering Information

P3N	R	A	9	8	B	N	N

Design Level

Port Type
- 1* G Thread (BSPP) Female
- 2 Rc Thread (BSPT) Female
- **9 NPT Female**

* 3/4 & 1 inch meet ISO 1179-1 Standard.

Port Size
- **6 3/4" (w/o Port Blocks)**
- **8 1" (w/o Port Blocks)**
- **P 1-1/2" Port Blocks (w/ 1" Ported Body)**

Relief
- **B Relieving**
- N Non-Relieving

Adjustment
- **N Non-Rising Knob**

Pressure Gauge

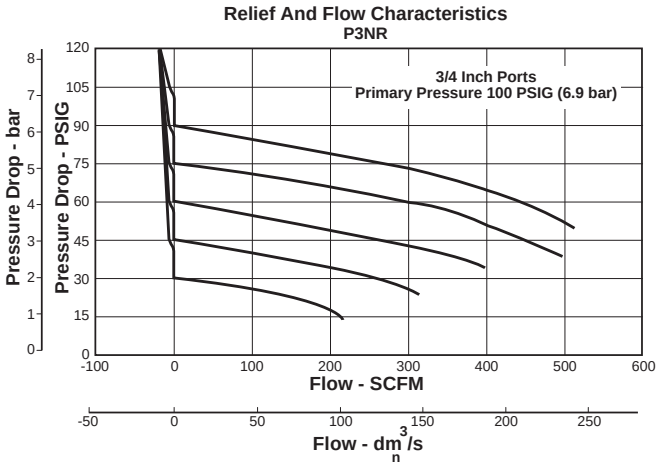
Without Gauge
- L 60 PSI (0 to 4 bar)
- **N 125 PSI (0 to 8 bar)**
- H 250 PSI (0 to 17 bar)

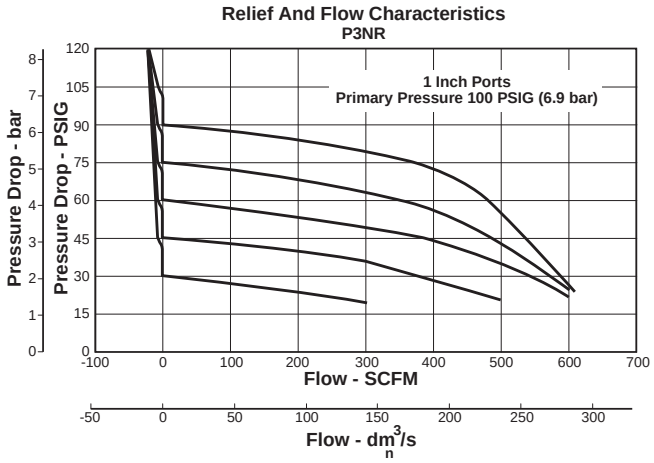
With Gauge
- M 60 PSI (0 to 4 bar)
- **G 125 PSI (0 to 8 bar)**
- J 250 PSI (0 to 17 bar)

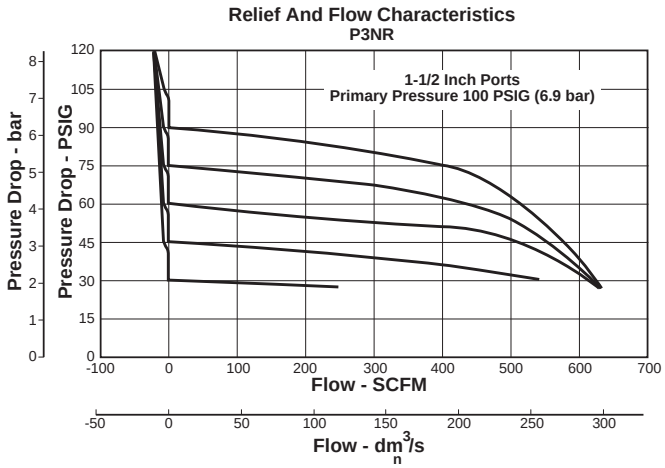
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Technical Information







CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

P3NR Regulator Kits & Accessories

Control Knob P3NKA00PN

Gauges – 60 PSIG (0 to 4.1 bar) K4520N14060
160 PSIG (0 to 11.0 bar) K4520N14160
300 PSIG (0 to 20.0 bar) K4520N14300

Mounting Bracket Kit* P3NKA00MW

Pressure Sensor – MPS-32 ..... (See pages C32-C38)

Service Kit – Relieving P3NKA00RR
Non-Relieving P3NKA00RN

Springs – 1-60 PSIG Range C10A1304
2-125 PSIG Range C10A1308
5-250 PSIG Range C10A1317

* If 1-1/2 BSPP E02 fittings are required, use P3NKA0BMW.

Specifications

Gauge Ports (2) ..... 1/4 Inch
(Can be used as additional High Flow 1/4 Inch Outlet Ports)

Port Threads ..... 3/4, 1, 1-1/2 Inch

Primary Pressure Rating –
Maximum Primary Pressure ..... 250 PSIG (17.2 bar)

Temperature Rating ..... 32°F to 175°F (0°C to 80°C)

Weight – 3/4" ..... 4.2 lb. (1.9 kg)
1" ..... 4.2 lb. (1.9 kg)
1-1/2" † ..... 5.3 lb. (2.4 kg)

Materials of Construction

Adjusting Stem ..... Steel

Body ..... Aluminum

Bonnet ..... Aluminum

Knob ..... Plastic

Piston ..... Plastic

Poppet Assembly ..... Brass

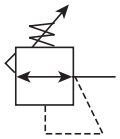
Seals ..... Nitrile

Springs – Poppet & Control ..... Steel

† 1" Port Body with 1-1/2" Port Block.

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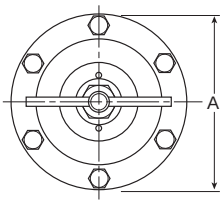
R119 Regulators – Hi-Flow

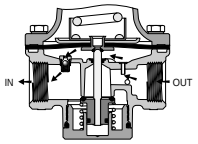




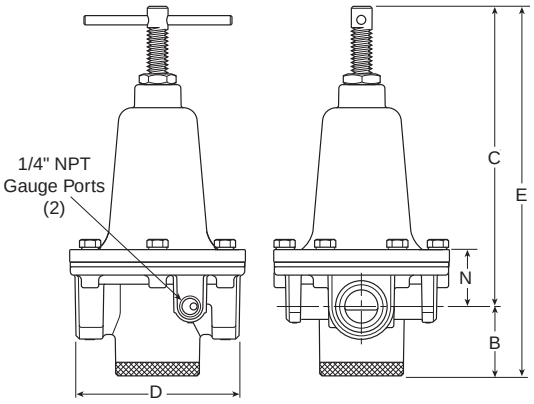
Features

- High flow performance featuring rugged design for the most demanding applications.
- Ideal for those installations calling for constant pressure with wide variation in flow.
- Diaphragm operated design with balanced poppet design for quick and accurate regulation.
- Secondary aspiration plus balanced poppet provides quick response and accurate pressure regulation.
- Heavy duty tee handle adjustment.
- Reverse flow version available.
- High Flow: 3/4" – 300 SCFM§
  1" – 400 SCFM§
  1-1/4" & 1-1/2" – 500 SCFM§





X80 Reverse Flow Option



Port Size	NPT Relieving
Without Gauge 0-125 PSIG Reduced Pressure	
3/4"	**R119-06C**
1"	**R119-08C**
1-1/4"	**R119-10C**
1-1/2"	**R119-12C**
With Gauge 0-125 PSIG Reduced Pressure	
3/4"	**R119-06CG**
1"	**R119-08CG**
1-1/4"	**R119-10CG**
1-1/2"	**R119-12CG**

Standard part numbers shown bold. For other models refer to ordering information below.

§ SCFM = Standard Cubic Feet Per Minute at 100 PSIG Inlet, 75 PSIG No Flow Secondary Setting, and 20 PSIG Pressure Drop.

R119-06C, R119-08C Regulator Dimensions					
A	**B**	**C**	**D**	**E**	**N**
4.69 (119)	1.87 (47)	8.15 (207)	4.38 (111)	10.02 (255)	1.61 (41)
R119-10C, R119-12C Regulator Dimensions					
A	**B**	**C**	**D**	**E**	**N**
4.94 (125)	1.81 (46)	8.53 (217)	4.94 (125)	10.34 (263)	1.99 (50.6)

inches (mm)

⚠ WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

Ordering Information

R	119	—	06	C	G	/**

Port Threads
— NPT
G BSPP

Port Size
06 3/4 Inch
08 1 Inch
10 1-1/4 Inch
12 1-1/2 Inch

Reduced Pressure Range
C 0-125 PSIG
D 0-250 PSIG

Options	
Blank	**None**
G	**Gauge**
K	Non-Relieving
X64‡	Fluorocarbon O-Rings and Diaphragm
X80†	Reverse Flow

Engineering Level
* Will be Entered at Factory

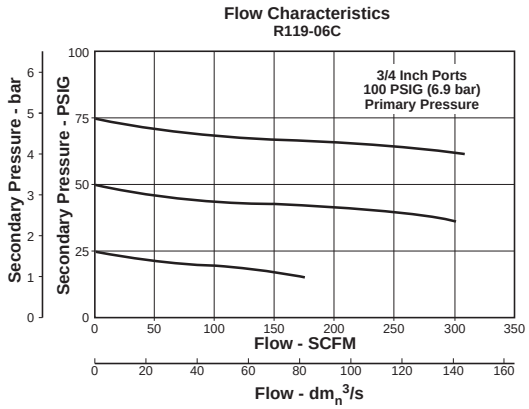
† Reverse flow for use downstream of control valves.

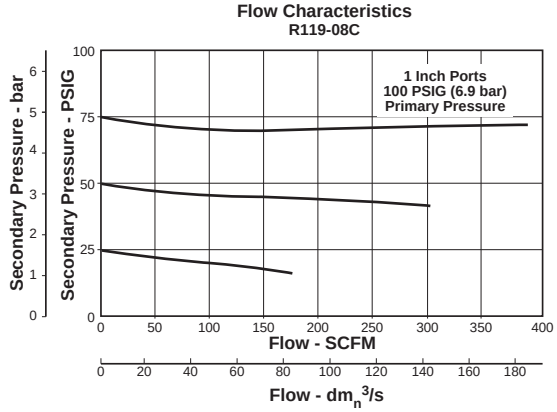
‡ Brass Bottom Plug Standard with X64 Option.

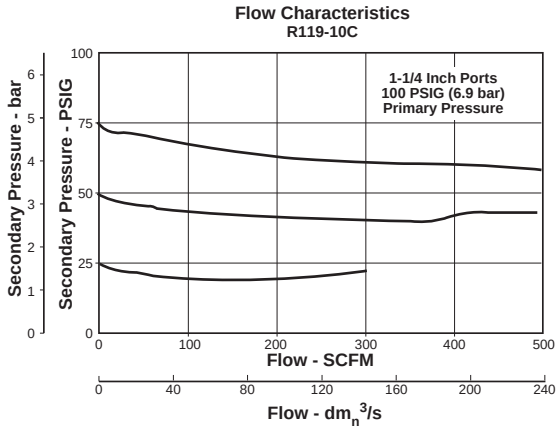
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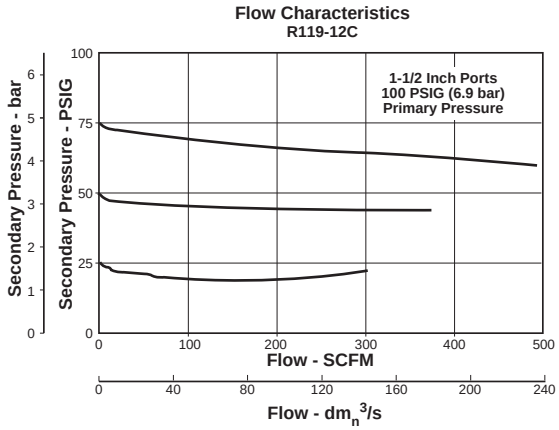
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Technical Information









CAUTION:

REGULATOR PRESSURE ADJUSTMENT –

The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

R119 Regulator Kits & Accessories

Gauges –

2" Dial Size, 1/4" Back Connection
0 to 60 PSIG (0 to 400 kPa) K4520N14060

2" Dial Size, 1/4" Back Connection
0 to 160 PSIG (0 to 1100 kPa) K4520N14160

2" Dial Size, 1/4" Back Connection
0 to 300 PSIG (0 to 2068 kPa) K4520N14300

Mounting Bracket Kit 18B57

Repair Kits –

Non-Relieving Diaphragm,
Valve Assembly (3/4", 1") RK118B

Non-Relieving Diaphragm,
Valve Assembly (1-1/4", 1-1/2") RK118D

Relieving Diaphragm,
Valve Assembly (3/4", 1") RK119B

Relieving Diaphragm,
Valve Assembly (1-1/4", 1-1/2") RK119D

For Fluorocarbon Repair Kits, add X64 to Kit Number suffix.

Specifications

Gauge Ports (2) ..... 1/4 Inch

Port Threads ..... 3/4, 1, 1-1/4, 1-1/2 Inch

Reduced Pressure Range ..... 2 to 125 PSIG (0.15 to 8.5 bar)

Supply Pressure ..... 300 PSIG Maximum (20.4 bar)

Temperature Rating ..... 40°F to 125°F (4.4°C to 52°C)

Weight –

R119-06, R119-08 ..... 6.2 lb. (2.81 kg) / Unit
25 lb. (11.34 kg) / 4-Unit Master Pack

R119-10, R119-12 ..... 7.2 lb. (3.27 kg) / Unit
29 lb. (13.15 kg) / 4-Unit Master Pack

Materials of Construction

Adjusting Screw, Springs ..... Steel

Body, Spring Cage ..... Zinc

Bottom Plug, Innervalve ..... Brass

Seals ..... Buna N

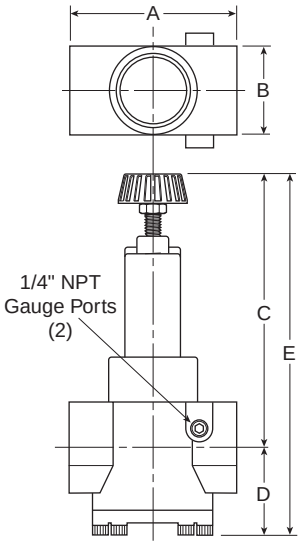
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09R Regulators – Hi-Flow



Features

- Piston design for reduced downtime.
- High flow.
- Balanced poppet for quick and accurate regulation.
- Two full flow 1/4" gauge ports which can be used as additional outlets.
- Self relieving piston standard.
- High Flow: 2" – 1000 SCFM§



Port Size	NPT
Without Gauge	
2"	**09R813B***

Standard part numbers shown bold. For other models refer to ordering information below.

§ SCFM = Standard cubic feet per minute at 100 PSIG inlet, 90 PSIG no flow secondary setting and 10 PSIG pressure drop.

09 Regulator Dimensions		
A 5.30 (135)	**B** 3.60 (91)	**C** 9.10 (231)
D 2.80 (71)	**E** 11.90 (302)	

Inches (mm)

Ordering Information

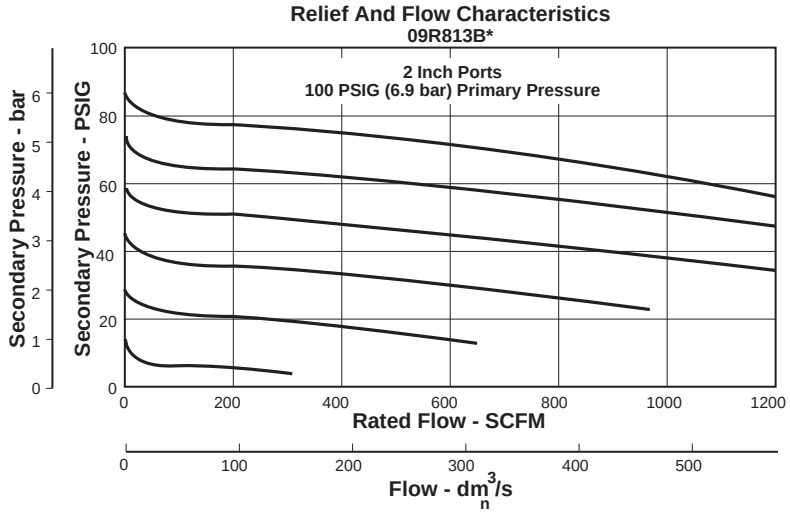
09R	8	13	B	*

Port Size	Pressure Range	Relief	Engineering Level
8 2 Inch	**13 125 PSIG**	**B Relieving** M Non-Relieving	* Will be Entered at Factory

BOLD ITEMS ARE MOST POPULAR.

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Technical Information



CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

⚠ WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

09R Regulator Kits & Accessories

Body Service Kit PS603P

Gauges – 160 PSIG (0 to 11.0 bar) K4520N14160

Mounting Bracket Kit PS605P

Pressure Sensor – MPS-32 ..... (See pages C32-C38)

Service Kit – Non-Relieving PS604P
Relieving PS626P

Springs – 2-125 PSIG Range PS602P

Specifications

Gauge Ports (2) ..... 1/4 Inch
(Can be used as additional Full Flow 1/4 Inch Outlet Ports)

Port Threads ..... 2 Inch

Primary Pressure Rating –
Maximum Primary Pressure ..... 300 PSIG (17.2 bar)

Secondary Pressure Range – ..... 10 to 125 PSIG (0.7 to 8.6 bar)

Temperature Rating ..... 32°F to 150°F (0°C to 66°C)

Weight ..... 10.82 lb. (53 kg)

Materials of Construction

Adjusting Stem & Springs ..... Steel

Body ..... Zinc Alloy, Die Cast

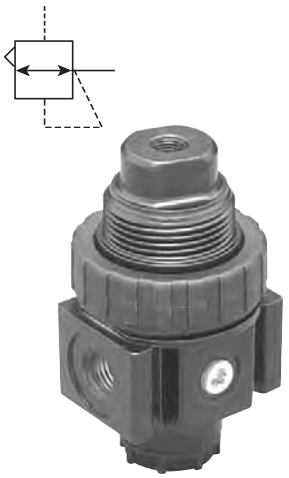
Bonnet, Piston Stem, Valve Poppet & Cap ..... Aluminum

Piston, Cap ..... Plastic

Seals ..... Nitrile

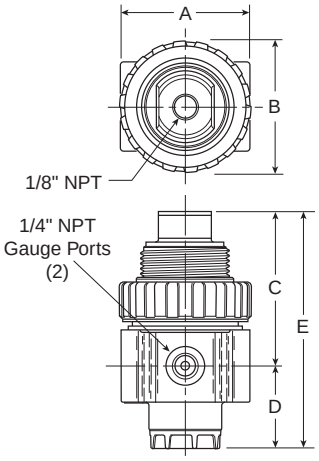
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10R Pilot Controlled Regulator – Economy



Features

- Unique balanced poppet valve minimizes secondary pressure fluctuations.
- Solid control piston with resilient seat for long, service-free operation.
- Easily serviced.
- High Flow: 1/4" – 50 SCFM§
  3/8" – 50 SCFM§



Port Size	NPT
Without Gauge	
1/4"	**10R115P***
3/8"	**10R215P***
With 160 PSI Gauge	
1/4"	**10R121P***
3/8"	**10R221P***

Standard part numbers shown bold. For other models refer to ordering information below.

NOTE: 1.53 Dia. (39mm) hole required for panel mounting.

§ SCFM = Standard cubic feet per minute at 100 PSIG inlet, 90 PSIG no flow secondary setting and 10 PSIG pressure drop.

10R Pilot Regulator Dimensions		
A 2.00 (51)	**B** 2.06 (52)	**C** 2.43 (61)
D 1.28 (32)	**E** 3.71 (93)	

Inches (mm)

⚠ WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

Ordering Information

10R	1	15	P	*	—	—

Port Size
1 1/4 Inch
2 3/8 Inch

Relief / Gauge Options
Without Gauge
14 Non-Relieving Piston
15 Relieving Piston
* With Gauge
19 Non-Relieving Piston
21 Relieving Piston

* Includes 1-1/2" Dial Face Gauge 0 to 160 PSIG

Adjustment
P Pilot Operated

Engineering Level
* Will be Entered at Factory

Port Type
Blank NPT
1 BSPP
2 BSPT

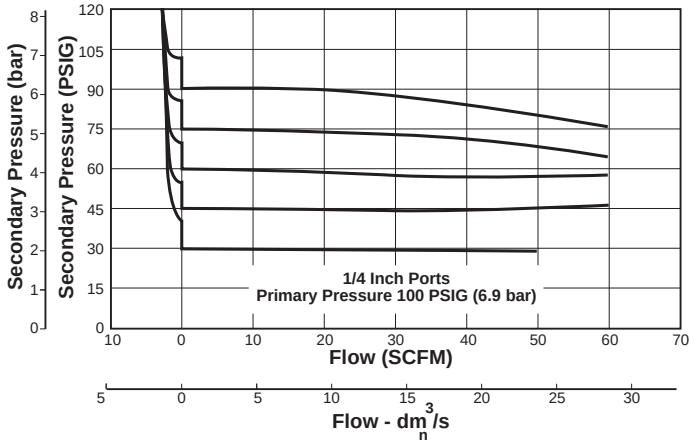
Options
Blank No Options

BOLD ITEMS ARE MOST POPULAR.

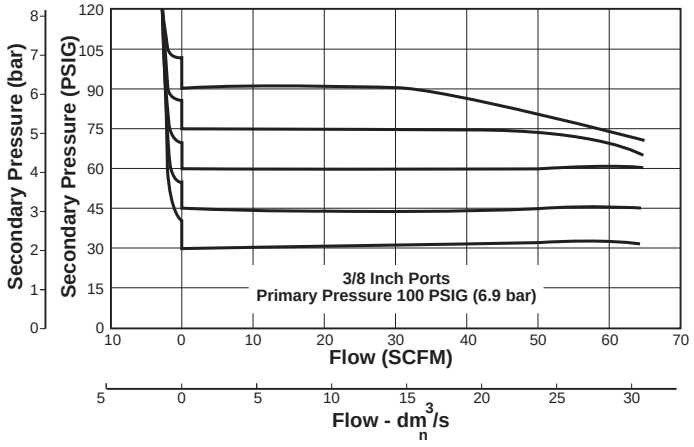
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Technical Information

Relief And Flow Characteristics
10R115P*



Relief And Flow Characteristics
10R215P*



10R Pilot Regulator Kits & Accessories

Gauges – 1-1/2" Dial Face
30 PSIG (0 to 2.1 bar)....K4515N14030
60 PSIG (0 to 4.1 bar)....K4515N14060
160 PSIG (0 to 11.0 bar)....K4515N14160
300 PSIG (0 to 20.0 bar)....K4515N14300

2" Dial Face
60 PSIG (0 to 4.1 bar)....K4520N14060
160 PSIG (0 to 11.0 bar)....K4520N14160
300 PSIG (0 to 20.0 bar)....K4520N14300

Mounting Bracket Kit....PS963P

Panel Mount Nut – Metal....PS964P

Pilot Conversion Kit....PS945P

Pressure Sensor – MPS-32....(See pages C32-C38)

Service Kits – Relieving....PS94900P
Non-Relieving....PS94700P

Specifications

Gauge Ports (2)....1/4 Inch

Port Threads....1/4, 3/8 Inch

Pressure & Temperature Rating –....0 to 250 PSIG (0 to 17.2 bar)
32°F to 175°F (0°C to 80°C)

Weight....0.90 lb. (0.41 kg)

Materials of Construction

Body....Zinc

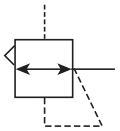
Piston & Poppet....Plastic

Seals....Nitrile

Spring – Poppet....Steel

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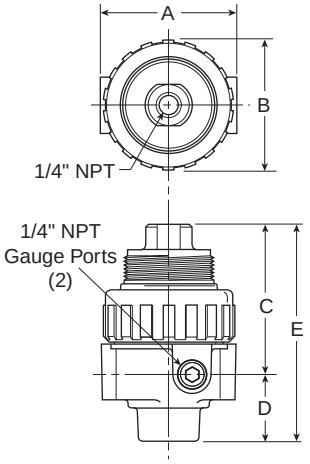
11R Pilot Controlled Regulator – Compact





Features

- Balanced poppet provides quick response and accurate pressure regulation.
- Pilot controlled regulators can be mounted “out of reach” with pilot regulator installed in a convenient location.
- Solid control piston for extended life.
- Two full flow 1/4" gauge ports can be used as additional outlets.
- Pilot port 1/4 Inch.
- High Flow: 1/4" – 85 SCFM§
  3/8" – 95 SCFM§
  1/2" – 95 SCFM§



Port Size	NPT
Without Gauge	
1/4"	**11R115P***
3/8"	**11R215P***
1/2"	**11R315P***
With 160 PSI Gauge	
1/4"	**11R121P***
3/8"	**11R221P***
1/2"	**11R321P***

11R Pilot Regulator Dimensions

A	B	C
2.81 (71)	2.74 (70)	3.05 (77)
D	**E**	
1.39 (35)	4.44 (113)	

Inches (mm)

Standard part numbers shown bold. For other models refer to ordering information below.

NOTE: 2.00 Dia. (50,8mm) hole required for panel mounting.

§ SCFM = Standard cubic feet per minute at 100 PSIG inlet, 90 PSIG no flow secondary setting and 10 PSIG pressure drop.

⚠ WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

Ordering Information

11R	2	15	P	*	—

Port Size
- **1 1/4 Inch**
- **2 3/8 Inch**
- **3 1/2 Inch**

Relief / Gauge Options

Without Gauge
- 14 Non-Relieving Piston
- **15 Relieving Piston**

* With Gauge
- 19 Non-Relieving Piston
- **21 Relieving Piston**

* Includes 2" Dial Face Gauge 0 to 300 PSIG

Adjustment
- **P Pilot Operated**

Engineering Level
- * Will be Entered at Factory

Port Type

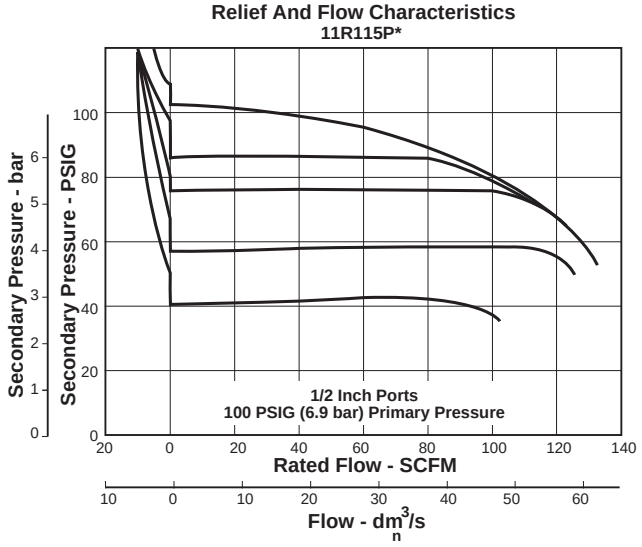
Blank	NPT
1	BSPP
2	BSPT

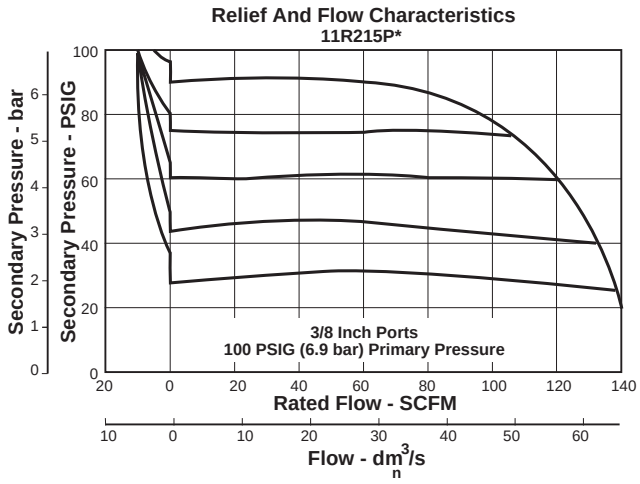
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Technical Information

A





11R Pilot Regulator Kits & Accessories

Body Service Kits – Seat Insert Kit PS713P

Gauges – 60 PSIG (0 to 4.1 bar) K4520N14060
160 PSIG (0 to 11.0 bar) K4520N14160
300 PSIG (0 to 20.0 bar) K4520N14300

Mounting Bracket Kit (Includes Panel Mount Nut) PS707P

Panel Mount Nut – Plastic P04082
Metal P04079B

Pilot Conversion Kit – Relieving PS745P

Pressure Sensor – MPS-32 ..... (See pages C32-C38)

Service Kits – Non-Relieving PS747P
Relieving PS749P

Specifications

Gauge Ports (2) ..... 1/4 Inch
(Can be used as additional Full Flow 1/4 Inch Outlet Ports)

Port Threads ..... 1/4, 3/8, 1/2 Inch

Pressure & Temperature Rating – ..... 0 to 250 PSIG (0 to 17.2 bar)
32°F to 175°F (0°C to 80°C)

Weight ..... 1.3 lb. (0.58 kg.)

Materials of Construction

Body & Pilot Cap ..... Zinc

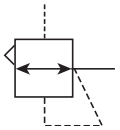
Piston, Valve Poppet, & Collar ..... Plastic

Seals ..... Nitrile

Springs ..... Steel

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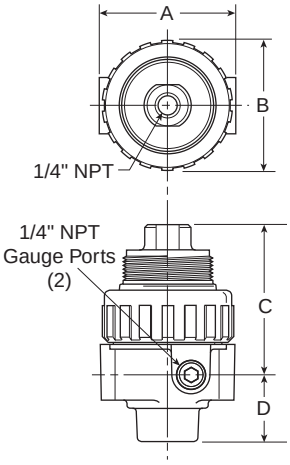
12R Pilot Controlled Regulator – Standard





Features

- Balanced poppet provides quick response and accurate pressure regulation.
- Pilot controlled regulators can be mounted “out of reach” with pilot regulator installed in a convenient location.
- Solid control piston for extended life.
- Two full flow 1/4" gauge ports can be used as additional outlets.
- Pilot port 1/4 Inch.
- High Flow: 3/8" – 120 SCFM§
  1/2" – 140 SCFM§
  3/4" – 140 SCFM§



Port Size	NPT
Without Gauge	
3/8"	**12R215P***
1/2"	**12R315P***
3/4"	**12R415P***
With 160 PSI Gauge	
3/8"	**12R221P***
1/2"	**12R321P***
3/4"	**12R421P***

12R Pilot Regulator Dimensions

A	B	C
3.24 (82)	2.74 (70)	3.15 (80)
D	**E**	
1.61 (41)	4.76 (121)	

Inches (mm)

Standard part numbers shown bold. For other models refer to ordering information below.

NOTE: 2.00 Dia. (50,8mm) hole required for panel mounting.

§ SCFM = Standard cubic feet per minute at 100 PSIG inlet, 90 PSIG no flow secondary setting and 10 PSIG pressure drop.

⚠ WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

Ordering Information

12R	2	15	P	*	—

Port Size
- **2 3/8 Inch**
- **3 1/2 Inch**
- **4 3/4 Inch**

Relief / Gauge Options

Without Gauge
- 14 Non-Relieving Piston
- **15 Relieving Piston**

*With Gauge
- 19 Non-Relieving Piston
- **21 Relieving Piston**

* Includes 2" Dial Face Gauge 0 to 300 PSIG

Adjustment
- **P Pilot Operated**

Engineering Level
- * Will be Entered at Factory

Port Type

Blank	NPT
1	BSPP
2	BSPT

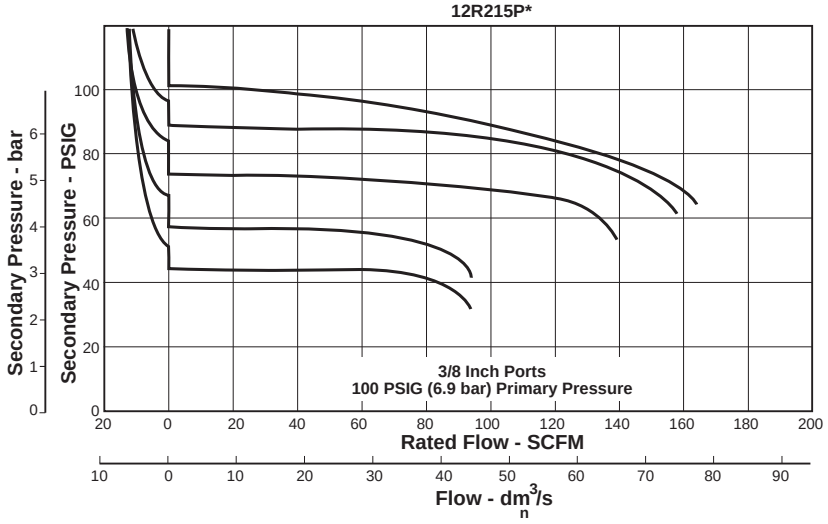
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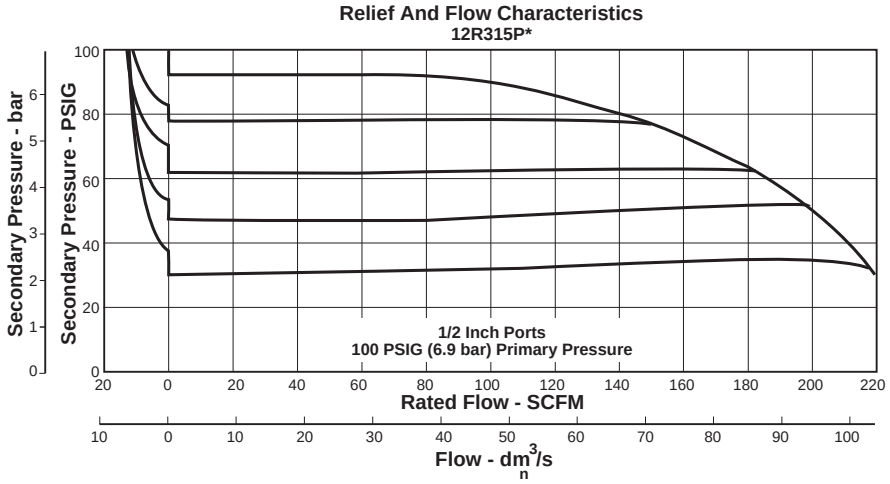
A

Technical Information

Relief And Flow Characteristics
12R215P*



Relief And Flow Characteristics
12R315P*



12R Pilot Regulator Kits & Accessories

Body Service Kits – Seat Insert Kit PS813P

Gauges – 60 PSIG (0 to 4.1 bar) K4520N14060
160 PSIG (0 to 11.0 bar) K4520N14160
300 PSIG (0 to 20.0 bar) K4520N14300

Mounting Bracket Kit (Includes Panel Mount Nut) PS807P

Panel Mount Nut – Plastic P04082
Metal P04079B

Pilot Conversion Kit – Relieving PS745P

Pressure Sensor – MPS-32 ..... (See pages C32-C38)

Service Kits – Non-Relieving PS847P
Relieving PS849P

Specifications

Gauge Ports (2) ..... 1/4 Inch
(Can be used as additional Full Flow 1/4 Inch Outlet Ports)

Port Threads ..... 3/8, 1/2, 3/4 Inch

Pressure & Temperature Rating – ..... 0 to 250 PSIG (0 to 17.2 bar)
32°F to 175°F (0°C to 80°C)

Weight ..... 2.0 lb. (0.91 kg)

Materials of Construction

Body & Pilot Cap ..... Zinc

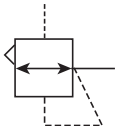
Piston, Valve Poppet, & Collar ..... Plastic

Seals ..... Nitrile

Springs ..... Steel

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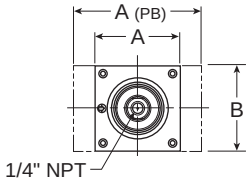
P3NR Pilot Controlled Regulator - Hi-Flow

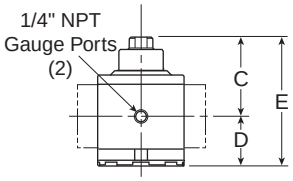




Features

- Port blocks (PB) available to provide 1-1/2" port extension to 1" ported bodies.
- Self relieving feature plus balanced poppet provides quick response and accurate pressure regulation.
- Solid control piston for extended life.
- High Flow: 3/4" – 300 SCFM§
  1" – 300 SCFM§
  1-1/2" – 350 SCFM§





Port Size	NPT
Without Gauge	
3/4"	**P3NRA96BPP**
1"	**P3NRA98BPP**
1-1/2" #	**P3NRA9PBPP**
With 160 PSI Gauge	
3/4"	**P3NRA96BPG**
1"	**P3NRA98BPG**
1-1/2" #	**P3NRA9PBPG**

Standard part numbers shown bold. For other models refer to ordering information below.

1" Port Body with 1-1/2" Port Block.

§ SCFM = Standard cubic feet per minute at 100 PSIG inlet, 90 PSIG setting and 10 PSIG pressure drop.

P3NR Pilot Regulator Dimensions		
A 3.62 (92)	**A (PB)** 5.91 (150)	**B** 3.62 (92)
C 3.38 (86)	**D** 2.08 (53)	**E** 5.46 (139)

Inches (mm)

⚠ WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

Ordering Information

P3N	R	A	9	8	B	P	P

Design Level

Port Type
- 1 G Thread (BSPP) Female
- 2 Rc Thread (BSPT) Female
- **9 NPT Female**

Port Size
- **6 3/4" (w/o Port Blocks)**
- **8 1" (w/o Port Blocks)**
- **P 1-1/2" Port Blocks (w/ 1" Ported Body)**

Relief
- **B Relieving**
- N Non-Relieving

Adjustment
- **P Pilot Operated**

Pressure Gauge

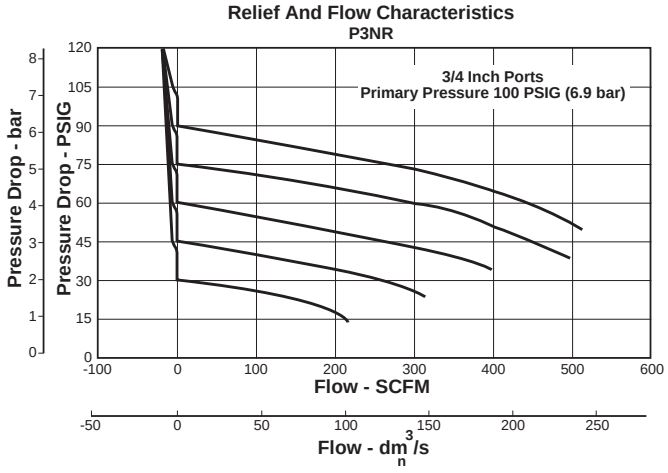
Without Gauge
- **P Pilot Operator**

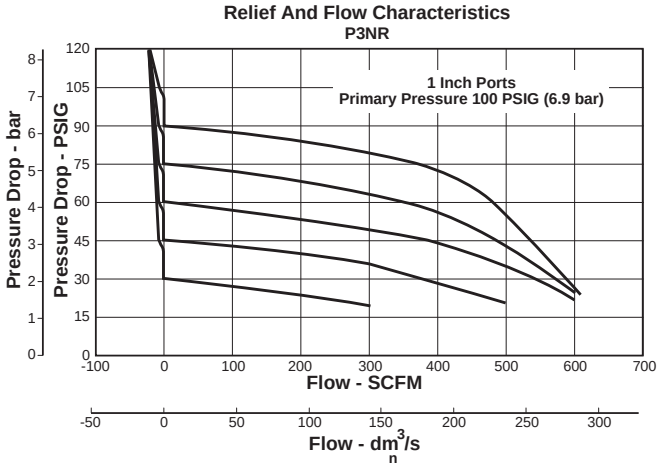
With Gauge
- M 60 PSI (0 to 4 bar)
- **G 125 PSI (0 to 8 bar)**
- J 250 PSI (0 to 17 bar)

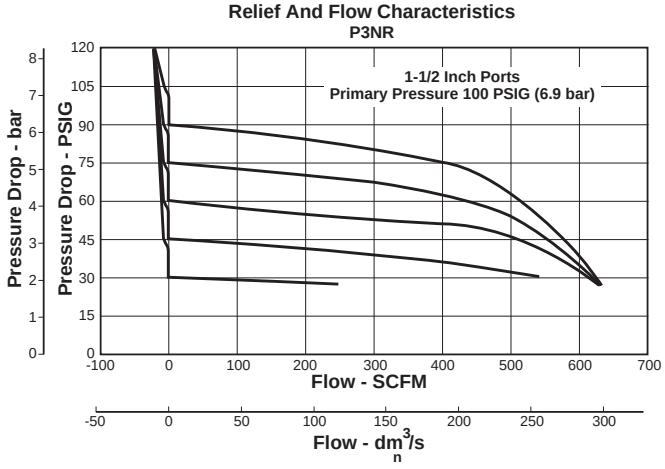
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Technical Information







P3NR Pilot Regulator Kits & Accessories

Gauges – 60 PSIG (0 to 4.1 bar) K4520N14060
160 PSIG (0 to 11.0 bar) K4520N14160
300 PSIG (0 to 20.0 bar) K4520N14300

Mounting Bracket Kit* P3NKA00MW

Pressure Sensor – MPS-32 ..... (See pages C32-C38)

Service Kit – Relieving P3NKA00PD

* If 1-1/2 BSPP E02 fittings are required, use P3NKA0BMW.

Specifications

Gauge Ports (2) ..... 1/4 Inch

Port Threads ..... 3/4, 1, 1-1/2 Inch

Primary Pressure Rating –
Maximum Primary Pressure ..... 250 PSIG (17.2 bar) Max.

Temperature Rating ..... 32°F to 175°F (0°C to 80°C)

Weight – 3/4" ..... 3.3 lb. (1.5 kg)
1" ..... 3.3 lb. (1.5 kg)
1-1/2" † ..... 4.4 lb. (2.0 kg)

Materials of Construction

Adjusting Stem ..... Steel

Body ..... Aluminum

Bonnet ..... Aluminum

Piston ..... Plastic

Poppet Assembly ..... Brass

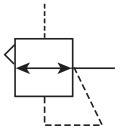
Seals ..... Nitrile

Springs – Poppet ..... Steel

† 1" Port Body with 1-1/2" Port Block.

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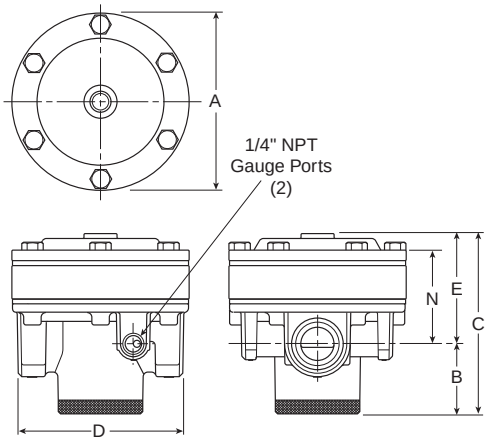
R119 Pilot Operated Regulators - Hi-Flow





Features

- Adapted for control by a remote or distant small pilot regulator. Ideal for maximum capacity requirements in applications where units are not readily accessible.
- High flow performance featuring rugged design for the most demanding applications.
- Ideal for those installations calling for constant pressure with wide variation in flow.
- Diaphragm operated design with balanced poppet and constant bleed pilot for quick and accurate regulation.
- Secondary aspiration plus balanced poppet provides quick response and accurate pressure regulation.
- Reverse flow version available.
- High Flow: 3/4" & 1" – 300 SCFM§
  1-1/4" & 1-1/2" – 500 SCFM§



Port Size	NPT
	Relieving
Without Gauge 0-125 PSIG Reduced Pressure	
3/4"	**R119-06J**
1"	**R119-08J**
1-1/4"	**R119-10J**
1-1/2"	**R119-12J**

Standard part numbers shown bold. For other models refer to ordering information below.

§ SCFM = Standard Cubic Feet Per Minute at 100 PSIG Inlet, 75 PSIG No Flow Secondary Setting, and 20 PSIG Pressure Drop.

R119-06J, R119-08J Pilot Regulator Dimensions					
A	**B**	**C**	**D**	**E**	**N**
3.00 (76)	1.38 (35)	2.10 (53)	2.74 (70)	3.48 (88)	1.69 (43)
R119-10J, R119-12J Pilot Regulator Dimensions					
A	**B**	**C**	**D**	**E**	**N**
3.56 (90)	1.56 (40)	2.31 (59)	3.35 (85)	3.87 (98)	1.93 (49)

inches (mm)

⚠ WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

Ordering Information

R	119	—	06	J	—	/**

Port Threads	
—	**NPT**
G	BSPP

Port Size	
06	**3/4 Inch**
08	**1 Inch**
10	**1-1/4 Inch**
12	**1-1/2 Inch**

Reduced Pressure Range	
J	**Air Pilot Operated**

Options	
Blank	**None**
K	Non-Relieving
X64†	Fluorocarbon O-Rings and Diaphragm
X71	Non-Bleed Pilot (For use with Electronic Controllers)
X80	Reverse Flow

† Brass Bottom Plug Standard with X64 Option.

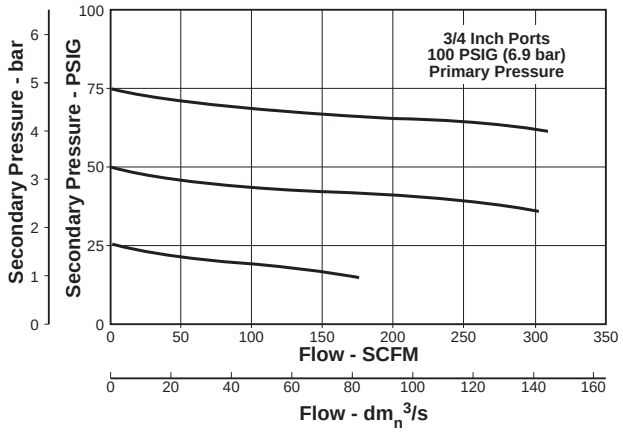
Engineering Level	
*	Will be Entered at Factory

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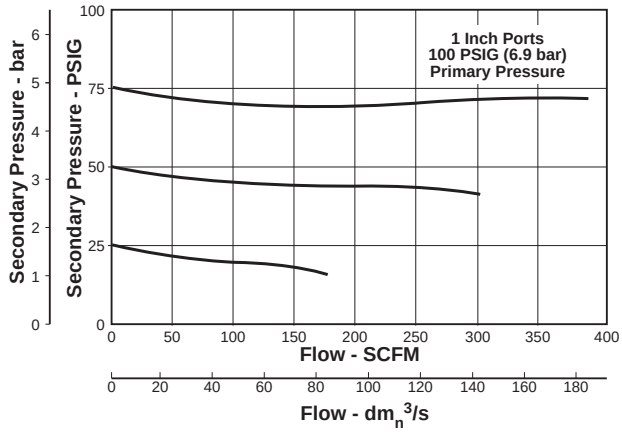
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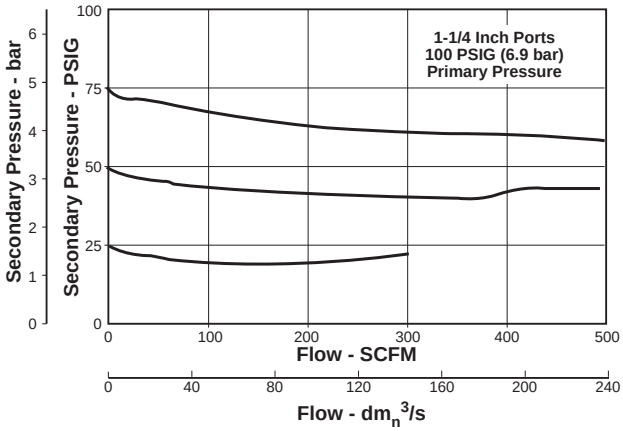
Flow Characteristics
R119-06J



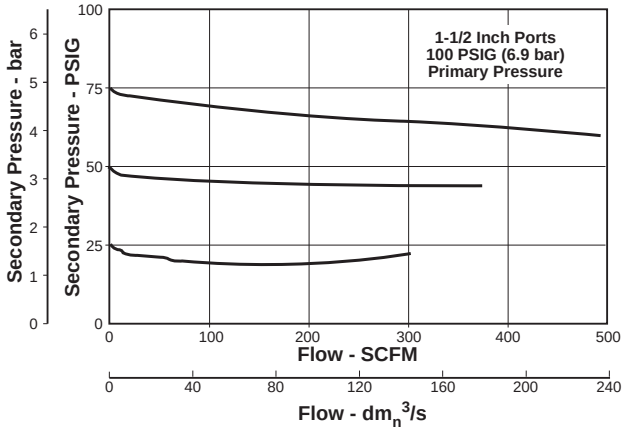
Flow Characteristics
R119-08J



Flow Characteristics
R119-10J



Flow Characteristics
R119-12J



R119 Regulator Kits & Accessories

Gauges –

2" Dial Size, 1/4" Back Connection
0 to 60 PSIG (0 to 400 kPa) K4520N14060

2" Dial Size, 1/4" Back Connection
0 to 160 PSIG (0 to 1100 kPa) K4520N14160

2" Dial Size, 1/4" Back Connection
0 to 300 PSIG (0 to 2068 kPa) K4520N14300

Repair Kits –

Non-Relieving Diaphragm,
Valve Assembly (3/4", 1") RK118X20B

Non-Relieving Diaphragm,
Valve Assembly (1-1/4", 1-1/2") RK118X20D

Relieving Diaphragm,
Valve Assembly (3/4", 1") RK119X20B

Relieving Diaphragm,
Valve Assembly (1-1/4", 1-1/2") RK119X20D

For Fluorocarbon Repair Kits, add X64 to Kit Number suffix.

Specifications

Gauge Ports (2) ..... 1/4 Inch

Port Threads ..... 3/4, 1, 1-1/4, 1-1/2 Inch

Reduced Pressure Range –
Adjustable to Within 5 to 7 PSIG of Supply Pressure

Supply Pressure ..... 300 PSIG Maximum (20.4 bar)

Air Consumption –
Constant Bleed from Air Pilot Chamber:
Approximately 0.17 SCFM (10 SCFH)

Temperature Rating ..... 40°F to 125°F (4.4°C to 52°C)

Weight –
R119-06J, R119-08J ..... 5.2 lb. (2.36 kg) / Unit
42 lb. (19.05 kg) / 8-Unit Master Pack
R119-10J, R119-12J ..... 5.6 lb. (2.54 kg) / Unit
46 lb. (20.87 kg) / 8-Unit Master Pack

Materials of Construction

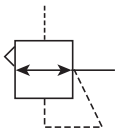
Body, Ring, Top Plate ..... Zinc

Bottom Plug, Innervalve ..... Brass

Seals ..... Buna N

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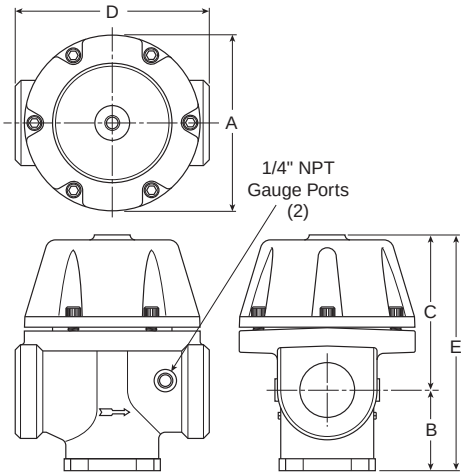
R119 Pilot Operated Regulators - Hi-Flow





Features

- Adapted for control by a remote or distant small pilot regulator. Ideal for maximum capacity requirements in applications where units are not readily accessible.
- High flow performance featuring rugged design for the most demanding applications.
- Ideal for those installations calling for constant pressure with wide variation in flow.
- Piston operated design with balanced poppet and dual constant bleed for quick and accurate regulation.
- High Flow: 2" & 2-1/2" – 1800 SCFM§



Port Size	NPT
	Relieving
Without Gauge 0-125 PSIG Reduced Pressure	
2"	**R119-16J**
2-1/2"	**R119-20J**

Standard part numbers shown bold. For other models refer to ordering information below.

§ SCFM = Standard Cubic Feet Per Minute at 100 PSIG Inlet, 75 PSIG No Flow Secondary Setting, and 20 PSIG Pressure Drop.

R119-16J, R119-20J Pilot Regulator Dimensions

A	B	C	D	E
6.63 (168)	3.09 (79)	7.78 (147)	7.31 (185)	10.87 (276)

inches (mm)

⚠ WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

Ordering Information

R	119	—	16	J

Port Threads
- **— NPT**
- G BSPP

Port Size
- **16 2 Inch**
- **20 2-1/2 Inch**

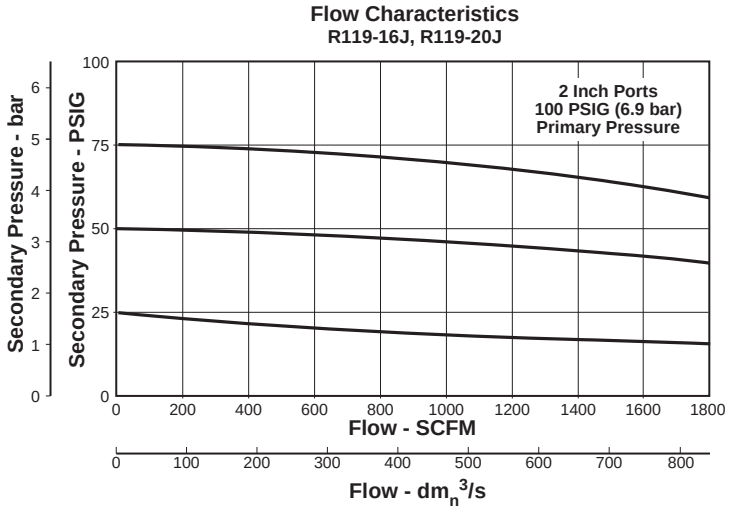
Reduced Pressure Range
- **J Air Pilot Operated**

NOTE: Non-Relieving Not Available.

BOLD ITEMS ARE MOST POPULAR.

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Technical Information



R119 Regulator Kits & Accessories

Gauges –

2" Dial Size, 1/4" Back Connection
0 to 60 PSIG (0 to 400 kPa) K4520N14060

2" Dial Size, 1/4" Back Connection
0 to 160 PSIG (0 to 1100 kPa) K4520N14160

2" Dial Size, 1/4" Back Connection
0 to 300 PSIG (0 to 2068 kPa) K4520N14300

Repair Kits –

Piston Type Regulation (2", 2-1/2") RK119G

Specifications

Gauge Ports (2) ..... 1/4 Inch
(Can be used for Full Flow)
High Pressure Outlet for Pilot (Not seen in photo) ..... 1/4 Inch

Port Threads ..... 2, 2-1/2 Inch

Reduced Pressure Range –
Adjustable to Within 5 to 7 PSIG of Supply Pressure

Supply Pressure ..... 300 PSIG Maximum (20.4 bar)

Air Consumption –
Constant Bleed from Air Pilot Chamber:
Approximately 0.17 SCFM (10 SCFH)

Constant Bleed from Reduced Pressure:
Approximately 0.17 SCFM (10 SCFH)

Temperature Rating ..... 40°F to 120°F (4.4°C to 48.9°C)

Weight –
R119-16J, R119-20J ..... 15 lb. (6.80 kg) / Unit
15 lb. (6.80 kg) / 1-Unit Master Pack

Materials of Construction

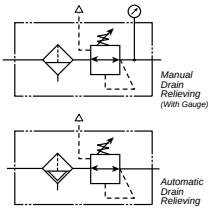
Body, Piston ..... Aluminum

Seals ..... Buna N

Innervalve ..... Brass & Stainless

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Filter / Regulators



- Pipe Sizes 1/8 thru 1-1/2 Inch
- Flows to 200 SCFM
- Pressures to 250 PSIG

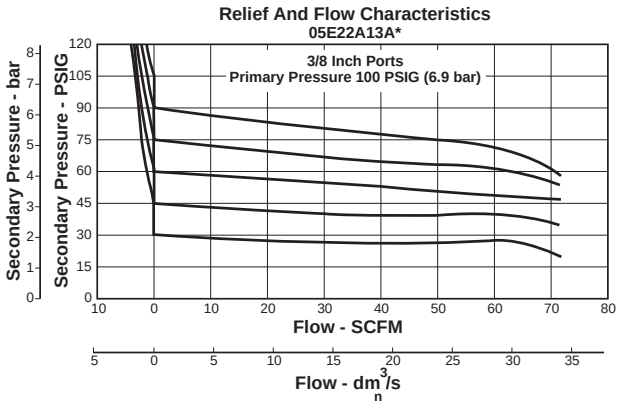
Integral Filter / Regulators are an excellent choice where accurate pressure regulation and high moisture removal efficiency are required in a space saving package.

- Miniature 14E Series, 1/8 and 1/4 Inch
- Miniature P3A-EA Series, 1/8 and 1/4 Inch
- Economy 05E Series, 1/4 and 3/8 Inch
- Compact 06E Series, 1/4, 3/8 and 1/2 Inch
- Standard 07E Series, 3/8, 1/2 and 3/4 Inch
- Hi-Flow P3NE Series, 3/4, 1 and 1-1/2 Inch
- Standard / Coalescing 12E Series, 3/8, 1/2 and 3/4 Inch

Filter / Regulator Selection

1. Determine maximum system flow requirements.
2. Determine maximum allowable pressure drop at rated flow in SCFM.
3. Refer to flow chart and select filter/regulator by choosing the curve that offers minimum pressure drop at desired flow in SCFM.

Reading Flow Charts to Size Filter / Regulators



Once the required flow is determined for a pneumatic application the regulator or filter/regulator can be selected by using the flow chart. The chart serves two different purposes. To read the flow, use the right side of the chart. To read the relief characteristics use the left side of the chart. When reading the flow chart, first determine the secondary pressure that will be used. Find the appropriate pressure curve on the graph. Given an acceptable pressure drop for an application, follow the flow curve until it intersects the pressure drop point. This will give the flow at that particular pressure drop.

⚠ WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

CAUTION:

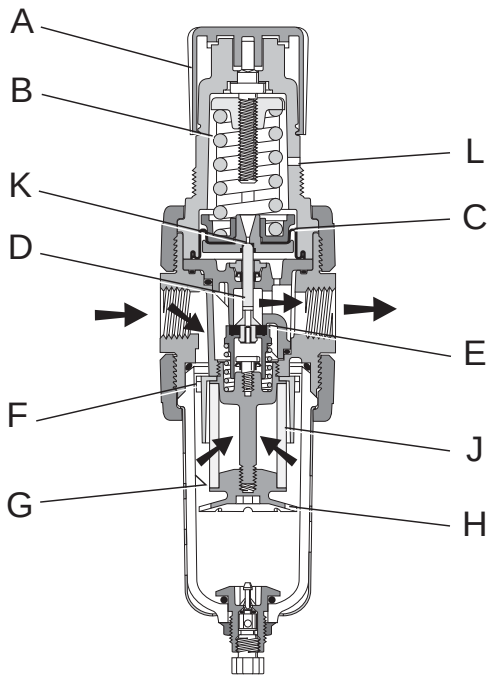
REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

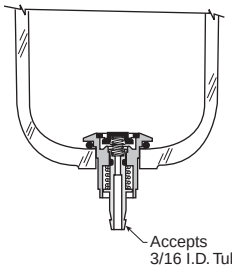
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www.parker.com/pneumatics

Filter / Regulator

Turning the knob (**A**) clockwise applies a load to control spring (**B**) which forces the piston/diaphragm (**C**) and valve poppet assembly (**D**) to move downward allowing filtered air to flow through the seat area (**E**) created between the poppet assembly and the seat. “First stage filtration” begins when air pressure supplied to the inlet port is directed through deflector plate (**F**) causing a swirling centrifugal action forcing liquids and coarse particles to the inner bowl wall (**G**) and down below the lower baffle (**H**) to the quiet zone. After liquids and large particles are removed in the first stage of filtration “second stage filtration” occurs as air flows through element (**J**) where smaller particles are filtered out and retained. The air flow now passes through seat area (**E**) to the outlet port of the unit. Pressure in the downstream line is sensed below the piston/diaphragm (**C**) and offsets the load of control spring (**B**). When downstream pressure reaches the set-point, poppet valve assembly (**D**) and piston/ diaphragm (**C**) move upward closing seat area (**E**). Should downstream pressure exceed the desired regulated pressure, the excess pressure will cause the piston/ diaphragm (**C**) to move upward opening vent hole (**K**) venting the excess pressure to atmosphere through the hole in the bonnet (**L**). (This occurs in the standard relieving type regulator only.)



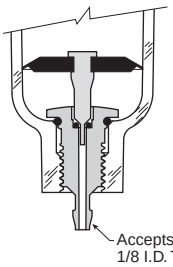
Semi Automatic Drain



(Overnight Drain)

This drain offers a semi-automatic function when there is a differential pressure in the filter which occurs when system pressure is shut off. The drain can also be used manually by gripping it with your fingertips and pushing upward.

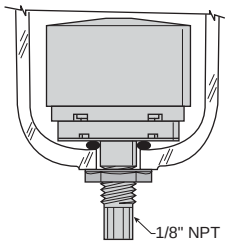
Automatic Pulse Drain



(Spitter Drain)

The diaphragm in this drain pulses when there is a pressure differential such as a valve cycling or cylinder stroking downstream. This action flexes the diaphragm and allows the filter to drain the entrapped water.

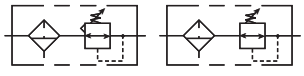
Automatic Float Drain



The float internal to this drain rises with increased liquid level. When the float rises, it opens a seat area allowing the trapped liquids to drain through the bottom.
A manual override can be pushed in the bottom of the drain to unseat the float if particulates create a block.

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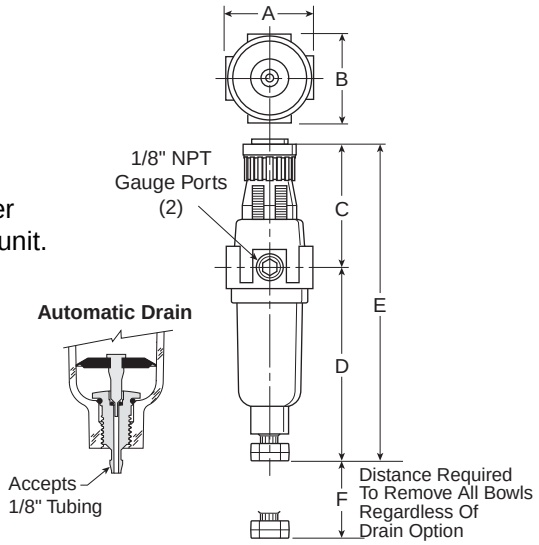
14E Filter / Regulator – Miniature





Features

- Excellent water removal efficiency.
- Unbalanced poppet standard.
- Solid control piston for extended life.
- Space saving package offers both filter and regulator features in one integral unit.
- Non-rising adjustment knob.
- Two full flow 1/8" gauge ports.
- High Flow: 1/8" – 16 SCFM§
  1/4" – 18 SCFM§



Port Size	NPT	
	Twist Drain	Automatic Pulse Drain
Poly Bowl‡		
1/8"	**14E01B13F***	**14E05B13F***
1/4"	**14E11B13F***	**14E15B13F***
Metal Bowl		
1/8"	**14E03B13F***	**14E07B13F***
1/4"	**14E13B13F***	**14E17B13F***

Standard part numbers shown bold. For other models refer to ordering information below.

‡ For polycarbonate bowl see Caution on page A2.

§ SCFM = Standard cubic feet per minute at 100 PSIG inlet, 90 PSIG no flow secondary setting and 10 PSIG pressure drop.

NOTE: 1.218 Dia. (31mm) hole required for panel mounting.

14E Filter / Regulator Dimensions		
A 1.62 (41)	**B** 1.58 (40)	**C** 2.42 (61)
D 3.79 (96)	**D†** 3.64 (92)	**E** 6.21 (158)
E† 6.06 (154)	**F** 1.60 (41)	

Inches (mm)
† With Auto Drain

Ordering Information

BOLD ITEMS ARE MOST POPULAR.

14E	1	1	B	13	F	*	—	—	---

Port Size
- **0 1/8 Inch**
- **1 1/4 Inch**

Elements
- A 40 Micron
- **B 5 Micron**
- Z Adsorber

Relief
- **F Relieving**
- G Non-Relieving
- H* Low Temp Relieving

* Twist Drain Only.

Port Type

Blank	NPT
1	BSPP
2	BSPT

Preset / Pressure Limited

Blank	None
XXX*	Preset Pressure
XXX*	Pressure Limited

* Available Preset / Pressure Limited Range, 10 to 90 PSIG in 5 PSIG increments. For higher pressures, contact factory.

(Example: 065 = 65 PSIG)

Bowl Options

Polycarbonate Bowl
- **1 Twist Drain**
- **5 Automatic Drain**

Metal Bowl
- **3 Twist Drain**
- **7 Automatic Drain**

Pressure Range

Without Gauge	With Gauge*
10 30 PSIG	15 30 PSIG
11 60 PSIG	16 60 PSIG
12 15 PSIG	17 15 PSIG
13 125 PSIG	18 125 PSIG

* Not available with BSPP or BSPT port types.

Engineering Level
- * Will be Entered at Factory

Options

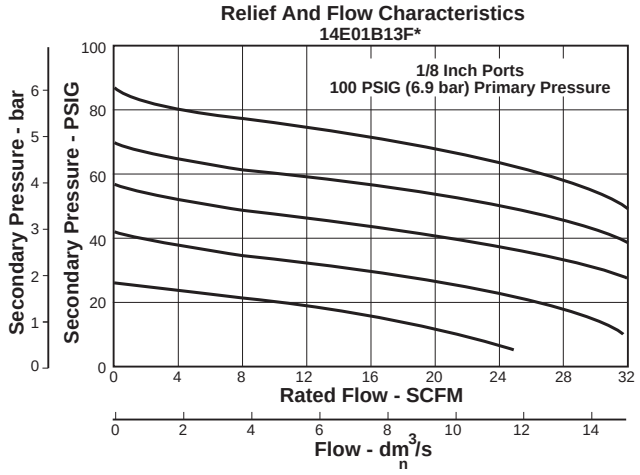
Blank	No Options
L†	Preset Non-Adjustable
P†	Preset Adjustable
S†	Pressure Limiter Max. Adjustable
T†	Pressure Limiter Max.

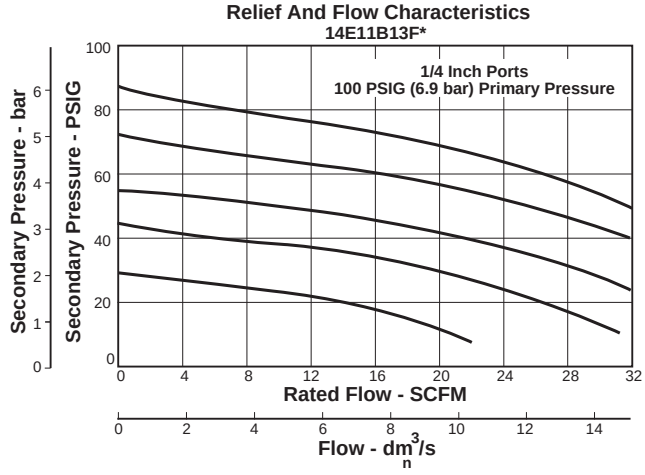
† Inlet Pressure is 100 PSIG. For other pressures, contact factory.

Spring Type by Preset / Limited Pressure:
For Preset / Limited Pressure 10 to 25 use 30 PSI Spring
For Preset / Limited Pressure 26 to 50 use 60 PSI Spring
For Preset / Limited Pressure 51 to 90 use 125 PSI Spring

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Technical Information





CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

⚠ WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

14E Filter / Regulator Kits & Accessories

Bonnet Tamperproof Kit P01265

Bowl Kits –
Poly Bowl – Automatic Drain PS408BP
Twist Drain PS404P
Metal Bowl – Automatic Drain PS451BP
Twist Drain PS447BP

Filter Element Kits – 40 Micron PS401P
5 Micron PS403P
Adsorber PS452P

Gauges – 30 PSIG (0 to 2.1 bar) K4515N18030
60 PSIG (0 to 4.1 bar) K4515N18060
160 PSIG (0 to 11.0 bar) K4515N18160

Mounting Bracket Kit* (Includes Panel Mount Nut) PS417BP

Panel Mount Nut* P78652

Poppet / Piston Kits – Unbalanced, Non-Relieving PS428P
Unbalanced, Relieving PS426P

Springs – 1- 15 PSIG Range (Yellow) P01176
1- 30 PSIG Range (Black) P01175
1- 60 PSIG Range (White) P01174
2- 125 PSIG Range (Gold) P01173

Specifications

Automatic Pulse Drain Tube Barb ..... 1/8 Inch

Bowl Capacity ..... 1 Ounce

Gauge Ports (2) (Can be used for Full Flow) ..... 1/8 Inch

Port Threads ..... 1/8, 1/4 Inch

*Tighten panel mount nut 2.8 to 3.4 Nm (25 to 30 in-lbs) of torque.

Pressure & Temperature Ratings –
Polycarbonate Bowl
0 to 150 PSIG (0 to 10.3 bar), 32°F to 125°F (0°C to 52°C)
Metal Bowl
0 to 250 PSIG (0 to 17.2 bar), 32°F to 175°F (0°C to 80°C)

Secondary Pressure Ranges –
Standard Pressure ..... 2 to 125 PSIG (0 to 8.6 bar)
Medium Pressure ..... 1 to 30 PSIG (0 to 2.1 bar)
Medium Pressure ..... 1 to 60 PSIG (0 to 4.1 bar)
Low Pressure ..... 1 to 15 PSIG (0 to 1 bar)

Weight ..... 0.4 lb. (0.18 kg)

Materials of Construction

Adjusting Nut ..... Brass

Adjusting Stem & Spring ..... Steel

Body ..... Zinc

Bonnet, Knob, Seat, Piston, Holder & Deflector ..... Plastic

Bowls Available – Transparent ..... Polycarbonate
Metal (Without Sight Gauge) ..... Zinc

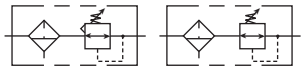
Drains – Manual – Twist Type
Body & Stem ..... Plastic
Seals ..... Nitrile
Automatic – Pulse Type
Piston & Seals ..... Nitrile
Stem, Seat, Adaptor & Washers ..... Aluminum

Filter Elements – 5 Micron (Standard) ..... Plastic
40 Micron (Optional) ..... Plastic
Adsorber (Optional) ..... Activated Charcoal

Seals ..... Nitrile

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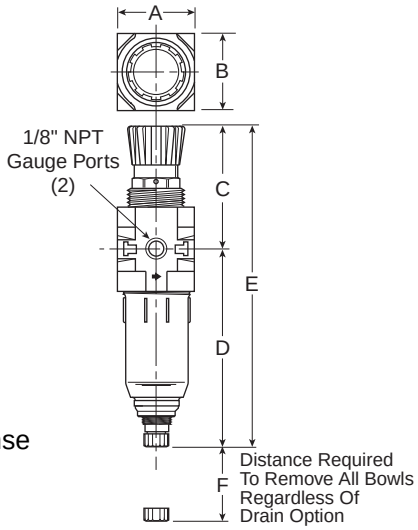
P3A-EA Filter / Regulator – Miniature





Features

- Lightweight plastic body
- Excellent water removal efficiency.
- Space saving package offers both filter and regulator features in one integral unit.
- Unique deflector plate that creates swirling of the air stream ensuring maximum water and dirt separation.
- 5 micron element standard.
- Fingertip operated drain.
- Non-rising adjustment knob.
- Diaphragm design for good repeatability, response
- Balanced poppet standard.



Port Size	NPT	
	Twist Drain	Automatic Pulse Drain
1/8"	**P3A-EA91BEBNNP**	**P3A-EA91CEBNNP**
1/4"	**P3A-EA92BEBNNP**	**P3A-EA92CEBNNP**

Standard part numbers shown bold. For other models refer to ordering information below.

§SCFM = Standard cubic feet per minute at 100 PSIG inlet, 90 PSIG no flow secondary setting and 10 PSIG pressure drop.

NOTE: For polycarbonate bowl see Caution on page A2.

NOTE: 1.20 Dia. (31mm) hole required for panel mounting.

⚠ WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

P3A-EA Filter / Regulator Dimensions		
A 1.57 (40)	**B** 1.57 (40)	**C** 2.52 (64)
D 3.98 (101)	**D†** 3.70 (94)	**E** 6.50 (165)
E† 6.22 (158)	**F** 2.00 (51)	

Inches (mm)
† With Auto Drain

Ordering Information

P3A-EA	9	1	B	E	B	N	N	P

Port Type
9 NPT Female

Port Size
1 1/8 Inch
2 1/4 Inch

Bowl / Drain
Polycarbonate
B Twist Drain
C Auto Pulse Drain

Element
E 5 Micron

Relief
B Relieving
N Non-Relieving

Pressure
Without Gauge
L 60 PSIG (0 to 4 bar)
N 120 PSIG (0 to 8 bar)
Y 30 PSIG (0 to 2 bar)
With Gauge
G 120 PSIG (0 to 8 bar)
Z 30 PSIG (0 to 2 bar)

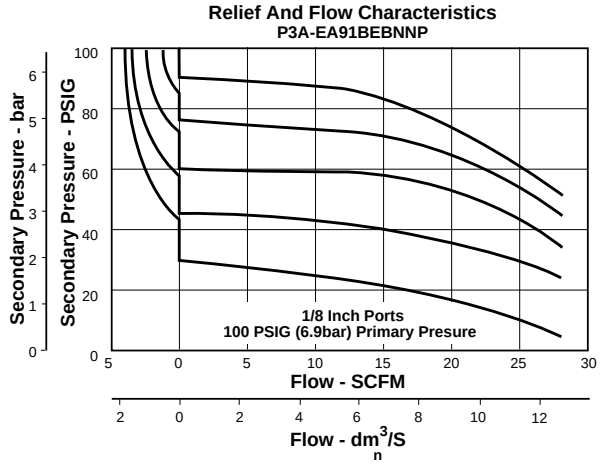
Assembly Option
N None

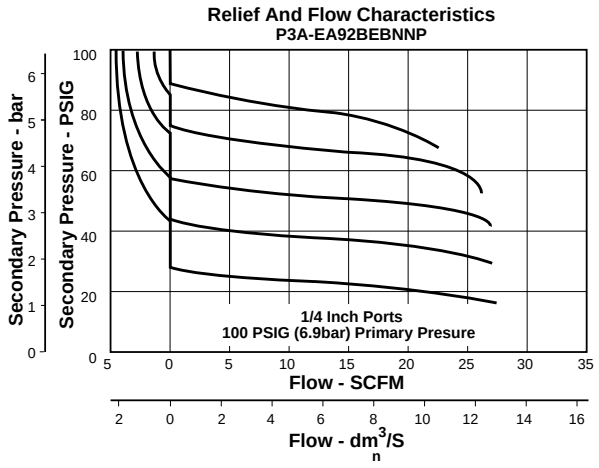
Bowl Material
P Polycarbonate

BOLD ITEMS ARE MOST POPULAR.

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Technical Information





CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

P3A-EA Filter / Regulator Kits and Accessories

Elements – 5 Micron Element P3A-KA00EEN

Gauges – 30 PSIG, 1/8" NPT (0 to 2.1 bar)..... K4515N18030
60 PSIG, 1/8" NPT (0 to 4.1 bar)..... K4515N18060
160 PSIG, 1/8" NPT (0 to 11.0 bar).....K4515N18160

Panel Mount Nut P3A-KA00MPN

Mounting Bracket Kit P3A-KA00MRN

Plastic Bowls – Bowl with Twist Drain P3A-KA00BBP
Bowl with Auto Pulse Drain..... P3A-KA00BCP

Service Kits – Filter Section..... P3A-KA00RFN
Regulator Section –
Relieving Diaphragm & Poppet.....P3A-KA00RRN

Springs – 1-30 PSIG Spring..... 156912
1-60 PSIG Spring..... 156918
5-110 PSIG Spring..... 156919

Specifications

Bowl Capacity .....0.9 Ounce

Sump Capacity .....0.24 Ounce

Gauge Ports (2) ..... 1/8 Inch

Operating Pressure Range –		**PSIG**	**bar**
Primary –	Maximum	120	8.3
Secondary –			
30 PSIG Spring	Minimum	6	0.4
	Maximum	30	2.1
60 PSIG Spring	Minimum	6	0.4
	Maximum	60	4.1
110 PSIG Spring	Minimum	6	0.4
	Maximum	110	7.6

Operating Temperature Range.....32°F to 125°F (0°C to 52°C)

Port Threads .....1/8, 1/4 Inch

Weight ..... 0.26 lb. (0.12 kg)

Materials of Construction

Adjusting Nut .....Brass

Adjusting Stem & Spring .....Steel

Poppet Return Spring ..... Stainless Steel

Body ..... Plastic

Bonnet ..... Plastic

Bowl..... Transparent Polycarbonate

Deflector ..... Plastic

Diaphragm.....Nitrile

Drains – Twist Drain –
Body & Stem .....Plastic
Seals .....Nitrile
Auto (Pulse) –
Piston & Seals.....Nitrile
Stem, Seat, Adaptor & Washers ..... Aluminum

Filter Element & Baffle –
Standard 5 Micron .....Nylon and Plastic

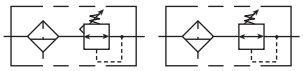
Port Inserts .....Brass

Seals .....Nitrile

Poppet .....Plastic & Nitrile

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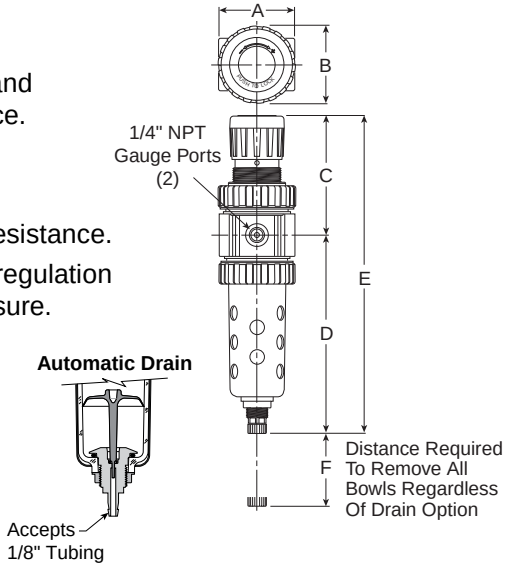
05E Filter / Regulator – Economy





Features

- Space saving package offers both filter and regulator features for optimal performance.
- Excellent water removal efficiency.
- Rolling diaphragm for extended life.
- Removable non-rising knob for tamper resistance.
- Quick response, and accurate pressure regulation regardless of changing flow or inlet pressure.
- 40 micron filter element standard, 5 micron and adsorber available.
- High Flow: 1/4" – 30 SCFM§
  3/8" – 40 SCFM§



Port Size	NPT	
	Twist Drain	Automatic Pulse Drain
Poly Bowl‡ / Metal Guard		
1/4"	**05E12A13A***	**05E1PA13A***
3/8"	**05E22A13A***	**05E2PA13A***
Metal Bowl / Sight Gauge		
1/4"	**05E14A13A***	**05E1TA13A***
3/8"	**05E24A13A***	**05E2TA13A***

Standard part numbers shown bold. For other models refer to ordering information below.

‡ For polycarbonate bowl see Caution on page A2.

§ SCFM = Standard cubic feet per minute at 100 PSIG inlet, 90 PSIG no flow secondary setting and 10 PSIG pressure drop.

NOTE: 1.53 Dia. (39mm) hole required for panel mounting.

⚠ WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

05E Filter / Regulator Dimensions

A	B	C
2.00 (51)	2.06 (52)	3.16 (80)
D†	**E†**	**F**
5.35 (136)	8.51 (216)	1.77 (45)

Inches (mm)

† With Twist Drain or Auto Pulse Drain

Ordering Information

05E	1	2	A	13	A	*	—	—	---

Port Size
- **1 1/4 Inch**
- **2 3/8 Inch**

Elements
- **A 40 Micron**
- B 5 Micron
- Z Adsorber

Relief
- **A Relieving**
- L Non-Relieving
- H Low Temp. Relieving

Port Type

Blank	NPT
1*	BSPP
2	BSPT

* 1/4 & 3/8 inch meet ISO 1179-1 Standard.

Preset / Pressure Limited

Blank	None
XXX*	Preset Pressure
XXX*	Pressure Limited

* Available Preset / Pressure Limited Range, 10 to 90 PSIG in 5 PSIG increments. For higher pressures, contact factory.

(Example: 065 = 65 PSIG)

Bowl Options

Polycarbonate Bowl
- 1 Twist Drain
- **2 Metal Bowl Guard / Twist Drain**
- N Automatic Pulse Drain
- **P Metal Bowl Guard / Auto Pulse Drain**

Metal Bowl
- 3 Twist Drain
- **4 Sight Gauge / Twist Drain**
- R Automatic Pulse Drain
- T **Sight Gauge / Auto Pulse Drain**

Pressure Range

Without Gauge		With Gauge*	
10	30 PSIG	17	30 PSIG
11	**60 PSIG**	**16**	**60 PSIG**
13	**125 PSIG**	**18**	**125 PSIG**
14§	200 PSIG	19§	200 PSIG

* Includes 1-1/2" Dial Face Gauge
§ Requires Metal Bowl

Spring Type by Preset / Limited Pressure:
For Preset / Limited Pressure 10 to 25 use 30 PSI Spring
For Preset / Limited Pressure 26 to 50 use 60 PSI Spring
For Preset / Limited Pressure 51 to 90 use 125 PSI Spring

Engineering Level
- * Will be Entered at Factory

Options

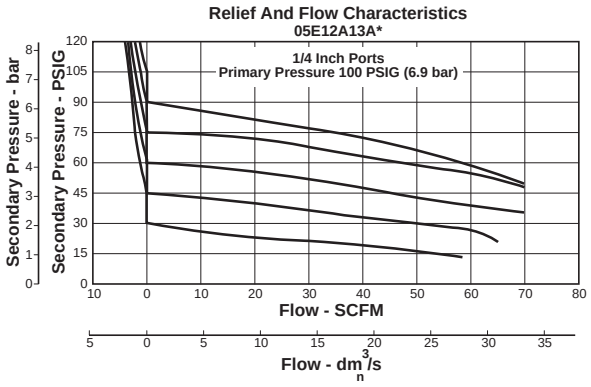
Blank	No Options
L†	Preset Non-Adjustable
P†	Preset Adjustable
S†	Pressure Limiter Max. Adjustable
T†	Pressure Limiter Max. Non-Adj.

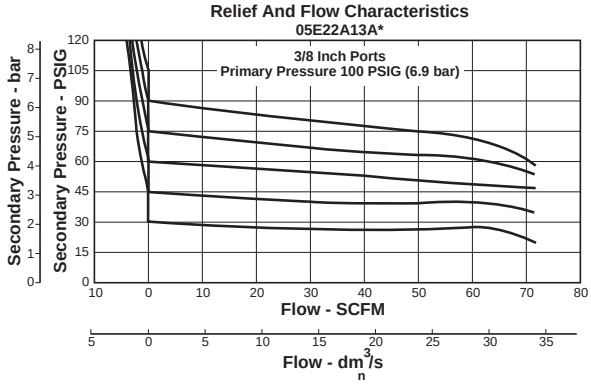
† Inlet Pressure is 100 PSIG. For other pressures, contact factory.

BOLD ITEMS ARE MOST POPULAR.

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Technical Information





CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

05E Filter / Regulator Kits & Accessories

Bowl Guard Kit PS905P

Bowl Kits –
- Poly Bowl – Automatic Pulse Drain PS995P
- Twist Drain PS932P
- Metal Bowl – Automatic Pulse Drain PS997P
- Twist Drain PS934P
- Sight Gauge / Automatic Pulse Drain PS996P
- Sight Gauge / Twist Drain PS935P

Drain Kit –
- Automatic Pulse Drain PS998P
- Semi-Auto Drain PS511P
- Twist Drain PS512P
- Push 'N' Drain PS513P

Filter Element Kits – 40 Micron PS901P
5 Micron PS902P
Adsorber PS931P

Sight Gauge Kit PS914P

Gauges – 1-1/2" Dial Face
- 30 PSIG (0 to 2.1 bar) K4515N14030
- 60 PSIG (0 to 4.1 bar) K4515N14060
- 160 PSIG (0 to 11.0 bar) K4515N14160
- 300 PSIG (0 to 20.0 bar) K4515N14300

2" Dial Face
- 60 PSIG (0 to 4.1 bar) K4520N14060
- 160 PSIG (0 to 11.0 bar) K4520N14160
- 300 PSIG (0 to 20.0 bar) K4520N14300

Mounting Bracket Kit (Includes Panel Mount Nut) PS963P

Panel Mount Nut – Metal PS964P

Pressure Sensor – MPS-32 ..... (See pages C32-C38)

Springs – 1-30 PSIG Range P04427
1-60 PSIG Range P04426
2-125 PSIG Range P04425
2-200 PSIG P02934

Relieving Service Kit PS908P

Non-Relieving Service Kit PS909P

Bonnet Assembly Kit PS915P

Specifications

Bowl Capacity ..... 2.0 Ounces

Gauge Port (2) ..... 1/4 Inch

Sump Capacity ..... 0.9 Ounce

Port Threads ..... 1/4, 3/8 Inch

Pressure & Temperature Rating –
Polycarbonate Bowl – 0 to 150 PSIG (0 to 10.3 bar)
32°F to 125°F (0°C to 52°C)
Metal Bowl – 0 to 250 PSIG (0 to 17.2 bar)
32°F to 175°F (0°C to 80°C)
Automatic Pulse Drain – 10 to 150 PSIG (0.7 to 10.3 bar)

Weight ..... 1.35 lb. (0.6 kg)

Materials of Construction

Adjusting Stem ..... Steel

Body ..... Zinc

Bonnet, Internal Parts ..... Plastic

Bowl Guard ..... Steel

Collar ..... Plastic

Diaphragm ..... Nitrile

Drain ..... Plastic

Filter Elements – 40 Micron (Standard) ..... Plastic
5 Micron (Optional) ..... Plastic
Adsorber (Optional) ..... Activated Charcoal

Knob ..... Plastic

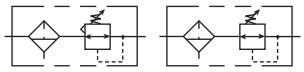
Seals ..... Nitrile

Sight Gauge ..... Polyamide (Nylon)

Springs – Poppet & Control ..... Steel

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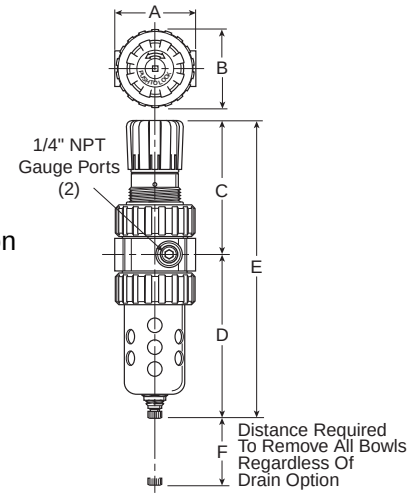
06E Filter / Regulator – Compact





Features

- Space saving package offers both filter and regulator features for optimal performance.
- Excellent water removal efficiency.
- Rolling diaphragm for extended life.
- Quick response, and accurate pressure regulation regardless of changing flow or inlet pressure.
- Two high flow 1/4" gauge ports can be used as additional outlets.
- Shown with recommended metal bowl guard.
- High Flow: 1/4" – 46 SCFM§
  3/8" – 55 SCFM§
  1/2" – 61 SCFM§



Port Size	NPT	
	Twist Drain	Automatic Float Drain
Poly Bowl‡ / Metal Guard		
1/4"	**06E12A13A***	**06E16A13A***
3/8"	**06E22A13A***	**06E26A13A***
1/2"	**06E32A13A***	**06E36A13A***
Metal Bowl / Sight Gauge		
1/4"	**06E14A13A***	**06E18A13A***
3/8"	**06E24A13A***	**06E28A13A***
1/2"	**06E34A13A***	**06E38A13A***

Standard part numbers shown bold. For other models refer to ordering information below.

‡ For polycarbonate bowl see Caution on page A2.

§ SCFM = Standard cubic feet per minute at 100 PSIG inlet, 90 PSIG no flow secondary setting and 10 PSIG pressure drop.

NOTE: 2.00 Dia. (50.8 mm) hole required for panel mounting. Max. panel thickness 1/4".

06E Filter / Regulator Dimensions			
A	**B**	**C**	**D**
2.81 (71)	2.74 (70)	4.69 (119)	5.69 (145)
D†	**E**	**E†**	**F**
5.74 (146)	10.38 (264)	10.43 (265)	2.25 (57)

Inches (mm)

† With Twist Drain or Auto Pulse Drain

⚠ WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

Ordering Information

06E	1	2	A	13	A	*	—	—	---

Port Size
- **1 1/4 Inch**
- **2 3/8 Inch**
- **3 1/2 Inch**

Elements
- **A 40 Micron**
- B 5 Micron
- Z Adsorber

Relief
- **A Relieving**
- L Non-Relieving

Port Type

Blank	**NPT**
1*	BSPP
2	BSPT

* 1/4 & 3/8 inch meet ISO 1179-1 Standard.

Preset

Blank	**None**
XXX*	Preset Pressure

* Available Preset Range, 10 to 90 PSIG in 5 PSIG increments. For higher pressures, contact factory.

(Example: 065 = 65 PSIG)

Bowl Options

Polycarbonate Bowl	Metal Bowl
1 Twist Drain	3 Twist Drain
2 Metal Bowl Guard / Twist Drain	**4 Sight Gauge / Twist Drain**
5 Auto Float Drain	7 Auto Float Drain
6 Metal Bowl Guard / Auto Float Drain	**8 Sight Gauge / Auto Float Drain**

Pressure Range

Without Gauge		With Gauge	
11	**60 PSIG**	**16**	**60 PSIG**
13	**125 PSIG**	**18**	**125 PSIG**
15§	250 PSIG	21§	250 PSIG

§ If 250 PSIG spring range is used, use metal bowl.

Engineering Level
- * Will be Entered at Factory

Options

Blank	**No Options**
L†	Preset Non-Adjustable
P†	Preset Adjustable

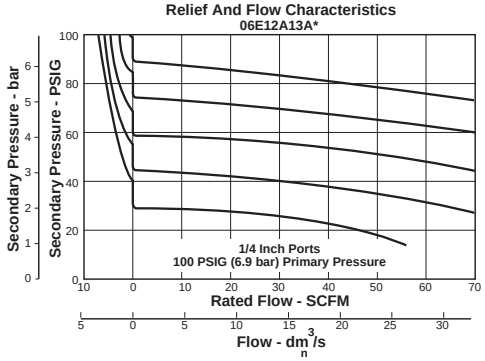
† Inlet Pressure is 100 PSIG. For other pressures, contact factory.

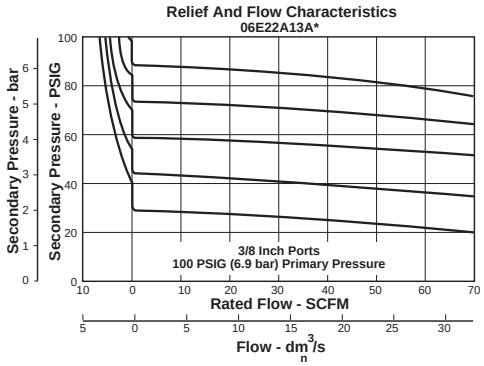
Spring Type by Preset / Limited Pressure:
For Preset / Limited Pressure 10 to 25 use 30 PSI Spring
For Preset / Limited Pressure 26 to 50 use 60 PSI Spring
For Preset / Limited Pressure 51 to 90 use 125 PSI Spring

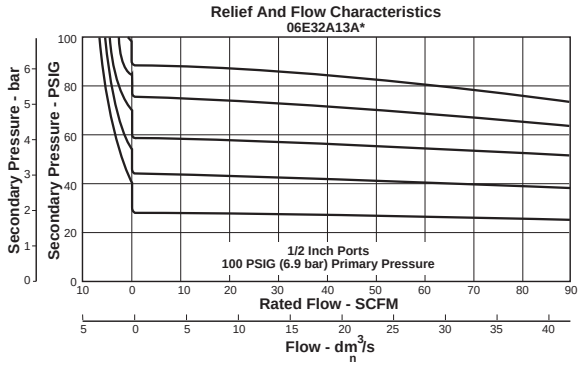
BOLD ITEMS ARE MOST POPULAR.

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Technical Information







CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

06E Filter / Regulator Kits & Accessories

Bonnet Assembly Kit PS715P
Bowl Guard Kit PS705P
Bowl Kits –
Poly Bowl – Automatic Float Drain PS722P
Twist Drain PS732P
Metal Bowl – Automatic Float Drain PS726P
Semi-Auto Drain PS794P
Twist Drain PS734P
Sight Gauge / Automatic Drain PS723P
Sight Gauge / Twist Drain PS735P
Control Knob P04069B
Drain Kits – Automatic Float Drain PS506P
Semi-Auto Drain PS511P
Twist Drain PS512P
Push 'N' Drain PS513P
Filter Element Kits – 40 Micron PS701P
5 Micron PS702P
Adsorber PS731P
Gauges – 60 PSIG (0 to 4.1 bar) K4520N14060
160 PSIG (0 to 11.0 bar) K4520N14160
300 PSIG (0 to 20.0 bar) K4520N14300
Mounting Bracket Kit (Includes Panel Mount Nut) PS707P
Panel Mount Nut P04082
Pressure Sensor – MPS-32 ..... (See pages C32-C38)
Service Kits – Non-Relieving (Includes Poppet) PS711P
Relieving (Includes Poppet) PS710P
Seat Insert Kit PS713P
Springs – 1- 30 PSIG Range P01698
1- 60 PSIG Range P04062
2- 125 PSIG Range P04063
5- 250 PSIG Range P04064
Tamperproof Kit (Key Lock) PS737P

Specifications

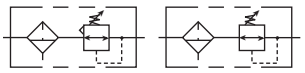
Bowl Capacity ..... 4.4 Ounces
Gauge Ports (2) ..... 1/4 Inch
(Can be used as Additional Full Flow 1/4" Outlet Ports)
Port Threads ..... 1/4, 3/8, 1/2 Inch
Pressure & Temperature Ratings –
Polycarbonate Bowl – 0 to 150 PSIG (0 to 10.4 bar)
32°F to 125°F (0°C to 52°C)
Metal Bowl – 0 to 250 PSIG (0 to 17.2 bar)
32°F to 175°F (0°C to 80°C)
Automatic Float Drain – 15 to 250 PSIG (1.0 to 17.2 bar)
Secondary Pressure Ranges –
Standard Pressure ..... 2 to 125 PSIG (0 to 8.6 bar)
Low Pressure ..... 1 to 60 PSIG (0 to 4.1 bar)
High Pressure ..... 5 to 250 PSIG (0.4 to 17.2 bar)
Sump Capacity ..... 1.75 Ounces
Weight ..... 1.6 lb. (0.7 kg)

Materials of Construction

Adjusting Stem ..... Steel
Body ..... Zinc
Bonnet, Internal Parts ..... Plastic
Bowls Available – Transparent ..... Polycarbonate
Metal (With or Without Sight Gauge) ..... Zinc
Bowl Guard ..... Steel
Collar ..... Plastic
Diaphragm ..... Nitrile
Drains – Manual Twist Drain Standard
Body & Nut ..... Plastic
Manual Push 'N' Drain Optional
Body ..... Nitrile
Stem ..... Brass
Automatic Float Drain Optional
(Interchangeable for Field Conversions)
Operating Range ..... 10 to 250 PSIG (.7 to 17.2 bar)
Housing, Float ..... Plastic
Seals ..... Nitrile
Springs, Push Rod ..... Stainless Steel
Knob ..... Plastic
Filter Elements – 40 Micron (Standard) ..... Plastic
5 Micron (Optional) ..... Plastic
Adsorber (Optional) ..... Activated Charcoal
Seals ..... Nitrile
Sight Gauge ..... Polyamide
Springs – Poppet ..... Stainless
Control ..... Steel

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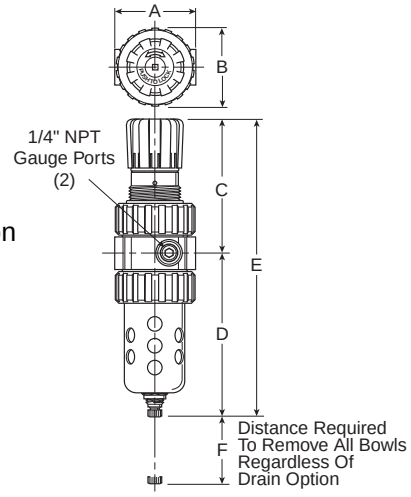
07E Filter / Regulator – Standard





Features

- Space saving package offers both filter and regulator features for optimal performance.
- Excellent water removal efficiency.
- Rolling diaphragm for extended life.
- Quick response, and accurate pressure regulation regardless of changing flow or inlet pressure.
- Two high flow 1/4" gauge ports can be used as additional outlets.
- Shown with recommended metal bowl guard.
- High Flow: 3/8" – 70 SCFM§
  1/2" – 90 SCFM§
  3/4" – 90 SCFM§



Port Size	NPT	
	Twist Drain	Automatic Float Drain
Poly Bowl‡ / Metal Guard		
3/8"	**07E22A13A***	**07E26A13A***
1/2"	**07E32A13A***	**07E36A13A***
3/4"	**07E42A13A***	**07E46A13A***
Metal Bowl / Sight Gauge		
3/8"	**07E24A13A***	**07E28A13A***
1/2"	**07E34A13A***	**07E38A13A***
3/4"	**07E44A13A***	**07E48A13A***

Standard part numbers shown bold. For other models refer to ordering information below.

‡ For polycarbonate bowl see Caution on page A2.

§ SCFM = Standard cubic feet per minute at 100 PSIG inlet, 90 PSIG no flow secondary setting and 10 PSIG pressure drop.

NOTE: 2.00 Dia. (50.8 mm) hole required for panel mounting. Max. panel thickness 1/4".

07E Filter / Regulator Dimensions			
A 3.24 (82)	**B** 3.25 (83)	**C** 4.79 (122)	**D** 6.97 (177)
D† 7.00 (178)	**E** 11.76 (299)	**E†** 11.79 (299)	**F** 2.75 (70)

Inches (mm)
† With Auto Float Drain

⚠ WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

Ordering Information

07E	3	2	A	13	A	*	—	—	---

Port Size
- **2 3/8 Inch**
- **3 1/2 Inch**
- **4 3/4 Inch**

Elements
- **A 40 Micron**
- B 5 Micron
- Z Adsorber

Relief
- **A Relieving**
- L Non-Relieving

Port Type
- **Blank NPT**
- 1* BSPP
- 2 BSPT

* 3/8, 1/2 & 3/4 inch meet ISO 1179-1 Standard.

Preset
- **Blank None**
- XXX* Preset Pressure

* Available Preset Range, 10 to 90 PSIG in 5 PSIG increments. For higher pressures, contact factory.

(Example: 065 = 65 PSIG)

Bowl Options

Polycarbonate Bowl	Metal Bowl
1 Twist Drain	3 Twist Drain
2 Metal Bowl Guard / Twist Drain	**4 Sight Gauge / Twist Drain**
5 Auto Float Drain	7 Auto Float Drain
6 Metal Bowl Guard / Auto Float Drain	**8 Sight Gauge / Auto Float Drain**

Pressure Range

Without Gauge		With Gauge	
11	**60 PSIG**	**16**	**60 PSIG**
13	**125 PSIG**	**18**	**125 PSIG**
15§	250 PSIG	21§	250 PSIG

§ If 250 PSIG spring range is used, use metal bowl.

Engineering Level
- * Will be Entered at Factory

Options
- **Blank No Options**
- L† Preset Non-Adjustable
- P† Preset Adjustable

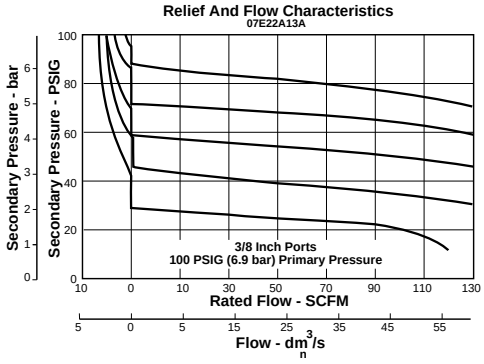
† Inlet Pressure is 100 PSIG. For other pressures, contact factory.

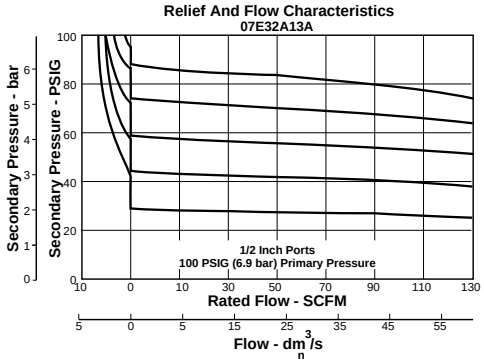
Spring Type by Preset / Limited Pressure:
For Preset / Limited Pressure 10 to 25 use 30 PSI Spring
For Preset / Limited Pressure 26 to 50 use 60 PSI Spring
For Preset / Limited Pressure 51 to 90 use 125 PSI Spring

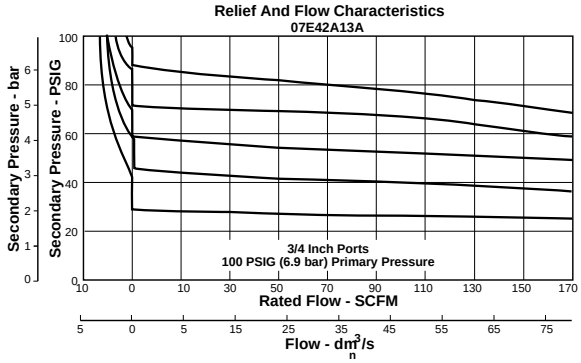
BOLD ITEMS ARE MOST POPULAR.

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Technical Information







CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

07E Filter / Regulator Kits & Accessories

Bonnet Assembly Kit PS715P
Bowl Guard Kit PS805P
Bowl Kits –
Poly Bowl – Automatic Float Drain PS822P
Twist Drain PS832P
Metal Bowl – Automatic Float Drain PS826P
Semi-Auto Drain PS894P
Twist Drain PS834P
Sight Gauge / Automatic Drain PS823P
Sight Gauge / Twist Drain PS835P
Control Knob P04069B
Drain Kits – Automatic Float Drain PS506P
Semi-Auto Drain PS511P
Twist Drain PS512P
Push 'N' Drain PS513P
Filter Element Kits – 40 Micron PS801P
5 Micron PS802P
Adsorber PS831P
Gauges – 60 PSIG (0 to 4.1 bar) K4520N14060
160 PSIG (0 to 11.0 bar) K4520N14160
300 PSIG (0 to 20.0 bar) K4520N14300
Mounting Bracket Kit (Includes Panel Mount Nut) PS807P
Panel Mount Nut P04082
Pressure Sensor – MPS-32 ..... (See pages C32-C38)
Service Kits – Non-Relieving (Includes Poppet) PS811P
Relieving (Includes Poppet) PS810P
Seat Insert Kit PS813P
Springs – 1- 30 PSIG Range P01698
1- 60 PSIG Range P04062
2- 125 PSIG Range P04063
5- 250 PSIG Range P04064
Tamperproof Kit (Key Lock) PS737P

Specifications

Bowl Capacity ..... 7.2 Ounces
Gauge Ports (2) ..... 1/4 Inch
(Can be used as Additional Full Flow 1/4" Outlet Ports)
Port Threads ..... 3/8, 1/2, 3/4 Inch
Pressure & Temperature Ratings –
Polycarbonate Bowl – 0 to 150 PSIG (0 to 10.4 bar)
32°F to 125°F (0°C to 52°C)
Metal Bowl – 0 to 250 PSIG (0 to 17.2 bar)
32°F to 175°F (0°C to 80°C)
Automatic Float Drain – 15 to 250 PSIG (1.0 to 17.2 bar)
Secondary Pressure Ranges –
Standard Pressure ..... 2 to 125 PSIG (0 to 8.6 bar)
Low Pressure ..... 1 to 60 PSIG (0 to 4.1 bar)
High Pressure ..... 5 to 250 PSIG (0.4 to 17.2 bar)
Sump Capacity ..... 2.8 Ounces
Weight ..... 2.5 lb. (1.1 kg)

Materials of Construction

Adjusting Stem ..... Steel
Body ..... Zinc
Bonnet, Internal Parts ..... Plastic
Bowls Available – Transparent ..... Polycarbonate
Metal (With or Without Sight Gauge) ..... Zinc
Bowl Guard ..... Steel
Collar ..... Plastic or Metal
Diaphragm ..... Nitrile
Drains – Manual Twist Drain Standard
Body & Nut ..... Plastic
Manual Push 'N' Drain Optional
Body ..... Nitrile
Stem ..... Brass
Automatic Float Drain Optional
(Interchangeable for Field Conversions)
Operating Range ..... 10 to 250 PSIG (.7 to 17.2 bar)
Housing, Float ..... Plastic
Seals ..... Nitrile
Springs, Push Rod ..... Stainless Steel
Knob ..... Plastic
Filter Elements – 40 Micron (Standard) ..... Plastic
5 Micron (Optional) ..... Plastic
Adsorber (Optional) ..... Activated Charcoal
Seals ..... Nitrile
Sight Gauge ..... Polyamide
Springs – Poppet ..... Stainless
Control ..... Steel

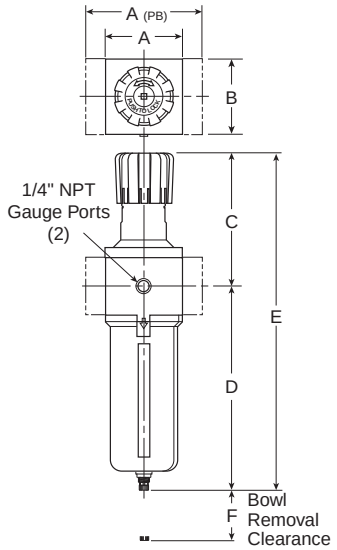
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P3NE Filter / Regulator – Hi-Flow



Features

- Port blocks (PB) available to provide 1-1/2" port extension to 1" ported bodies.
- Excellent water removal efficiency.
- Metal bowl with sight gauge.
- Large filter element surface guarantees low pressure drop and increased element life.
- Twist drain as standard, optional auto drain.
- Self relieving feature plus balanced poppet provides quick response and accurate pressure regulation.
- Solid control piston for extended life.
- High Flow: 3/4" – 250 SCFM§
  1" – 250 SCFM§
  1-1/2 – 250 SCFM§



Port Size	NPT	
	Twist Drain	Automatic Float Drain
Metal Bowl / Sight Gauge		
3/4"	**P3NEA96GSMBNN**	**P3NEA96GSABNN**
1"	**P3NEA98GSMBNN**	**P3NEA98GSABNN**
1-1/2"*	**P3NEA9PGSMBNN**	**P3NEA9PGSABNN**

Standard part numbers shown bold. For other models refer to ordering information below.

* 1" Port Body with 1-1/2" Port Block.

§ SCFM = Standard cubic feet per minute at 90 PSIG inlet and 5 PSIG pressure drop, with 40 micron element.

P3NE Filter / Regulator Dimensions			
A 3.62 (92)	**A(PB)** 5.91 (150)	**B** 3.62 (92)	**C** 6.38 (162)
D† 9.57 (243)	**E†** 15.95 (405)	**F** 4.92 (125)	

Inches (mm)
† With Twist Drain or Auto Float Drain

⚠ WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

Ordering Information

P3N	E	A	9	8	G	S	M	B	N	N

Design Level

Port Type
- 1* G Thread (BSPP) Female
- 2 Rc Thread (BSPT) Female
- **9 NPT Female**

* 3/4 & 1 inch meet ISO 1179-1 Standard.

Port Size
- **6 3/4" (w/o Port Blocks)**
- **8 1" (w/o Port Blocks)**
- **P 1-1/2" Port Blocks (w/ 1" Ported Body)**

Element
- A Adsorber
- E 5 Micron
- **G 40 Micron**

Bowl
- **S Metal Bowl w/ Sight Gauge**

Drains
- **M Twist Drain**
- A Automatic Float Drain
- P Push 'N' Drain
- S Semi-Auto Drain

Relief
- **B Relieving**
- N Non-Relieving

Adjustment
- **N Non-Rising Knob**

Pressure Range

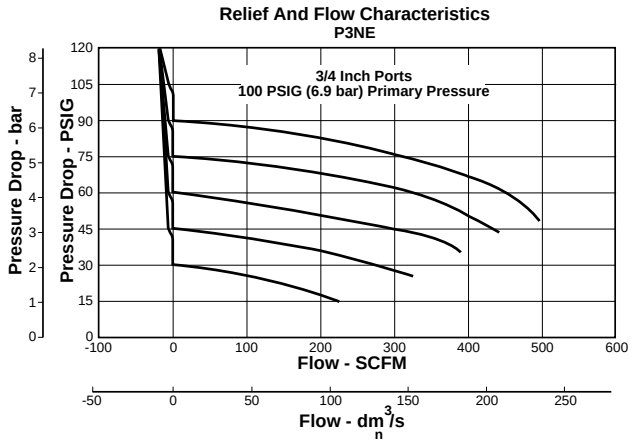
w/o Gauge
- L 60 PSI (0 to 4 bar)
- **N 125 PSI (0 to 8 bar)**
- H 250 PSI (0 to 17 bar)

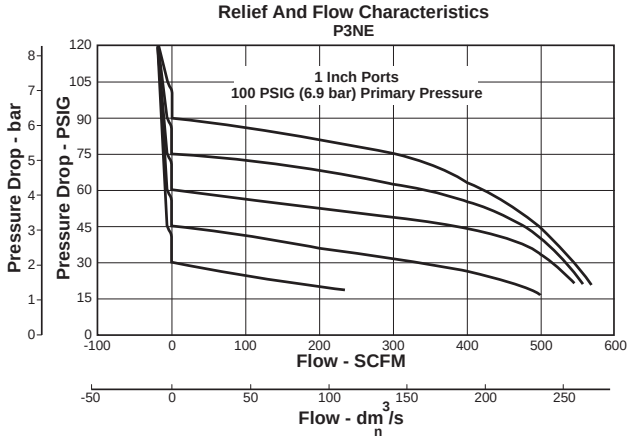
w/ Gauge
- M 60 PSI (0 to 4 bar)
- **G 125 PSI (0 to 8 bar)**
- J 250 PSI (0 to 17 bar)

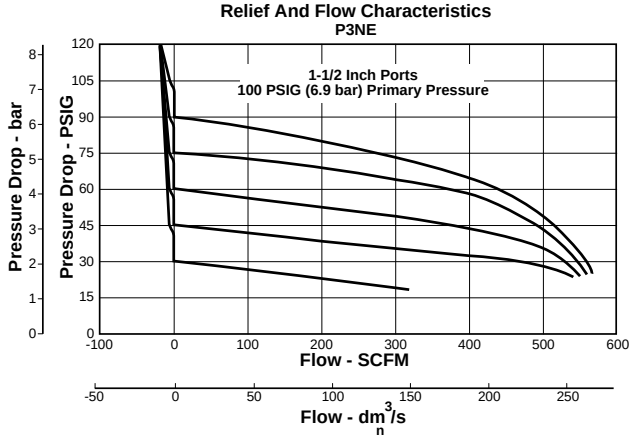
BOLD ITEMS ARE MOST POPULAR.

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Technical Information







CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

P3NE Filter / Regulator Kits & Accessories

Bowl Kits –
Metal Bowl – Sight Gauge / Automatic Float Drain . P3NKA00BSA
Sight Gauge / Twist Drain P3NKA00BSM
Sight Gauge / Push 'N' Drain P3NKA00BSP

Bowl Latch Kit C11A33

Control Knob P3NKA00PN

Drain Kit – Automatic Float Drain PS506P
Semi-Auto Drain PS511P
Twist Drain PS512P
Push 'N' Drain PS513P

Filter Element Kits – 40 Micron P3NKA00ESG
5 Micron P3NKA00ESE
Adsorber P3NKA00ESA

Gauges – 60 PSIG (0 to 4.1 bar) K4520N14060
160 PSIG (0 to 11.0 bar) K4520N14160
300 PSIG (0 to 20.0 bar) K4520N14300

Mounting Bracket Kit* P3NKA00MW

Pressure Sensor – MPS-32 ..... (See pages C32-C38)

Service Kit – Relieving P3NKA00RR
Non-Relieving P3NKA00RN

Sight Gauge Kit P3NKA00PE

Springs – 1-60 PSIG Range C10A1304
2-125 PSIG Range C10A1308
5-250 PSIG Range C10A1317

* If 1-1/2 BSPP E02 fittings are required, use P3NKA0BMW.

Specifications

Bowl Capacity ..... 18.0 Ounces
Gauge Ports (2) ..... 1/4 Inch
Port Threads ..... 3/4, 1, 1-1/2* Inch
Pressure & Temperature Rating –..... 0 to 250 PSIG (0 to 17.2 bar)
32°F to 175°F (0°C to 80°C)
For Secondary Pressure Ranges see above charts.
Automatic Float Drain – 15 to 250 PSIG (1.0 to 17.2 bar)
Sump Capacity ..... 6.8 Ounces
Weight – 3/4" ..... 5.3 lb. (2.4 kg)
1" ..... 5.3 lb. (2.4 kg)
1-1/2"* ..... 6.43 lb. (2.9 kg)

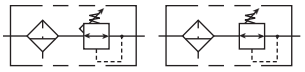
Materials of Construction

Adjusting Stem ..... Steel
Body, Bonnet, Bowl ..... Aluminum
Drain ..... Plastic
Filter Elements – 40 Micron (Standard) ..... Plastic
5 Micron (Optional) ..... Plastic
Adsorber (Optional) ..... Activated Charcoal
Knob ..... Plastic
Piston ..... Plastic
Seals ..... Nitrile
Sight Gauge ..... Polyamide (Nylon)
Springs – Poppet & Control ..... Steel

* 1" Port Body with 1-1/2" Port Block.

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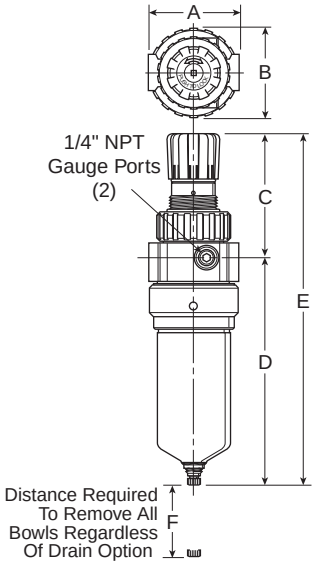
12E Filter / Regulator – Coalescing





Features

- Space saving package offers both coalescer and regulator features for optimal performance.
- Removes liquid, aerosol and sub-micron particles.
- Rolling diaphragm for extended life.
- Removable non-rising knob for panel mounting and tamper resistance.
- Quick response, and accurate pressure regulation regardless of changing flow or inlet pressure.
- Two high flow 1/4" gauge ports can be used as additional outlets.
- High Flow: Grade 6 Element
  3/8" – 35 SCFM§
  1/2" – 40 SCFM§
  3/4" – 45 SCFM§



Port Size	NPT
Twist Drain	
3/8"	**12E23E13A***
1/2"	**12E33E13A***
3/4"	**12E43E13A***
Automatic Float Drain	
3/8"	**12E27E13A***
1/2"	**12E37E13A***
3/4"	**12E47E13A***

Standard part numbers shown bold. For other models refer to ordering information below.

§ SCFM = Standard cubic feet per minute at 150 PSIG inlet, 90 PSIG no flow secondary setting and 10 PSIG pressure drop.

NOTE: 2.00 Dia. (50.8 mm) hole required for panel mounting.

12E Filter / Regulator Dimensions			
A 3.24 (82)	**B** 3.25 (83)	**C** 4.79 (122)	**D** 8.20 (208)
D† 8.17 (208)	**E** 12.99 (330)	**E†** 12.96 (329)	**F** 3.29 (84)

Inches (mm)

† With Twist Drain or Auto Float Drain

⚠ WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

Ordering Information

12E	3	3	E	13	A	*	—	—	---

Port Size
2 3/8 Inch
3 1/2 Inch
4 3/4 Inch

Bowl Options
Metal Bowl
3 Twist Drain
7 Automatic Float Drain

Elements
E Grade 6
H Grade 10

Port Size
Without Gauge
11 60 PSIG
13 125 PSIG
15 250 PSIG
With Gauge
16 60 PSIG
18 125 PSIG
21 250 PSIG

Relief
A Relieving
L Non-Relieving

Engineering Level
* Will be Entered at Factory

Port Type
Blank NPT
1* BSPP
2 BSPT

* 3/8 & 1/2 inch meet ISO 1179-1 Standard.

Options
Blank No Options
L† Preset Non-Adjustable
P† Preset Adjustable

† Inlet Pressure is 100 PSIG. For other pressures, contact factory.

Preset
Blank None
XXX* Preset Pressure

* Available Preset Range, 10 to 90 PSIG in 5 PSIG increments. For higher pressures, contact factory.

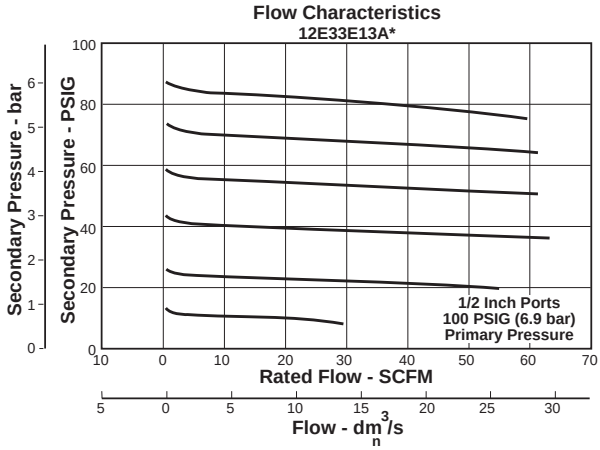
(Example: 065 = 65 PSIG)

Spring Type by Preset / Limited Pressure:
For Preset / Limited Pressure 10 to 25 use 30 PSI Spring
For Preset / Limited Pressure 26 to 50 use 60 PSI Spring
For Preset / Limited Pressure 51 to 90 use 125 PSI Spring

BOLD ITEMS ARE MOST POPULAR.

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Technical Information



CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

12E Filter / Regulator Kits & Accessories

Bonnet Assembly Kit PS715P

Bowl Kits –
Metal Bowl – Automatic Float Drain PS826P
Twist Drain PS834P
Push 'N' Drain PS825P

Control Knob P04069B

Drain Kits – Automatic Float Drain PS506P
Twist Drain PS512P
Push 'N' Drain PS513P

Filter Element Kits – Grade 6 ..... PS884P
Grade 10 ..... PS885P

Gauges – 60 PSIG (0 to 4.1 bar) K4520N14060
160 PSIG (0 to 11.0 bar) K4520N14160
300 PSIG (0 to 20.0 bar) K4520N14300

Mounting Bracket Kit (Includes Panel Mount Nut) PS807P

Pressure Sensor – MPS-32 ..... (See pages C32-C38)

Service Kit – Relieving (Includes Poppet) PS886P

Springs – 1- 30 PSIG Range P01698
1- 60 PSIG Range P04062
2- 125 PSIG Range P04063
5- 250 PSIG Range P04064

Tamperproof Kit (Key Lock) PS737P

Specifications

Bowl Capacity ..... 7.2 Ounces

Gauge Ports (2) ..... 1/4 Inch
(Can be used as Additional Full Flow 1/4" Outlet Ports)

Port Threads ..... 3/8, 1/2, 3/4 Inch

Pressure & Temperature Ratings –
Metal Bowl – 0 to 250 PSIG (0 to 17.2 bar)
32°F to 175°F (0°C to 80°C)

Secondary Pressure Ranges –
Standard Pressure ..... 2 to 125 PSIG (0 to 8.6 bar)
Low Pressure ..... 1 to 60 PSIG (0 to 4.1 bar)
High Pressure ..... 5 to 250 PSIG (0.4 to 17.2 bar)

Sump Capacity ..... 2.8 Ounces

Weight ..... 2.5 lb. (1.1 kg)

Materials of Construction

Adjusting Stem ..... Steel

Body ..... Zinc

Bonnet, Internal Parts ..... Plastic

Bowls Available – Metal (Without Sight Gauge) ..... Zinc

Collar For Bonnet ..... Metal

Control Spring ..... Steel

Diaphragm ..... Nitrile

Drains – Manual Twist Drain Standard
Body & Nut ..... Plastic
Manual Push 'N' Drain Optional
Body ..... Nitrile
Stem ..... Brass
Automatic Float Drain Optional
(Interchangeable for Field Conversions)
Operating Range ..... 10 to 250 PSIG (.7 to 17.2 bar)
Housing, Float ..... Plastic
Seals ..... Nitrile
Springs, Push Rod ..... Stainless Steel

Knob ..... Plastic

Filter Element –
Borosilicate & felt glass fibers 99.97% DOP efficiency
Largest Aerosol Particle Passed (Grade 6) ..... 0.75 Microns
Largest Solid Particle Passed (Grade 6) ..... 0.30 Microns

Seals ..... Nitrile

Sight Gauge ..... Polyamide

Springs – Poppet ..... Stainless

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Micro-Mist Lubricators

- Pipe Sizes 1/4 thru 3/4 Inch
- Flows to 500 SCFM
- Pressures to 250 PSIG

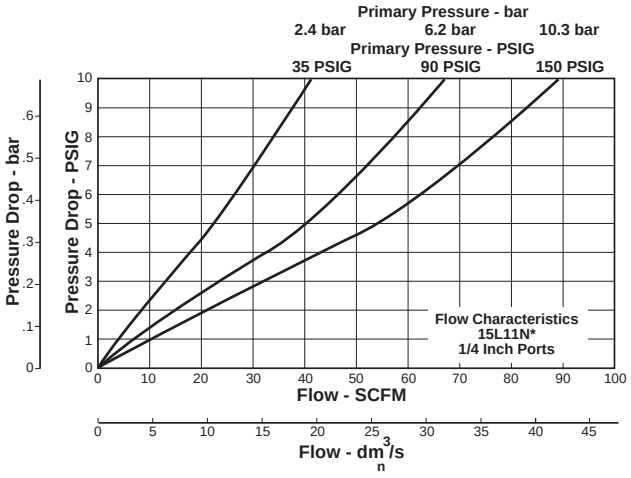
Micro-Mist Air Lubricators are designed to provide optimum and uniform lubrication with fine micro-mist particles of 2 micron or smaller, to pneumatic components even through complex piping arrangements.

- Economy 15L Series, 1/4 and 3/8 Inch
- Compact 16L Series, 1/4, 3/8 and 1/2 Inch
- Standard 17L Series, 3/8, 1/2 and 3/4 Inch

Lubricator Selection

1. Determine maximum system flow requirements.
2. Determine maximum allowable pressure drop at rated flow in SCFM.
3. Refer to flow chart and select lubricator by choosing the curve that offers minimum pressure drop at desired flow in SCFM.

Reading Flow Charts to Size Micro-Mist Lubricators



Once the required flow is determined for a pneumatic application the lubricator can be selected by using the flow chart. To read the lubricator flow chart, first determine the inlet pressure that will be used. Find the appropriate pressure curve on the graph. Each graph will contain three pressure curves. If the required inlet pressure is not on the graph, interpolate a similar curve for the required pressure. Next, determine the acceptable pressure drop across the lubricator and locate it on the vertical axis. Find the intersection point of the acceptable pressure drop and the inlet pressure curve. At this point follow a vertical path downward to view the flow in SCFM. If the flow is too low, select a larger port size or body size to give the required flow. If the flow is higher than necessary, select a smaller port size or body size to give the required flow.

F442 Oil



Quantity	Part Numbers
1 Quart	F442001
1 Gallon	F442002
12 Quart Case	F442003
4 Gallon Case	F442005

Petroleum based oil of 100 to 200 SSU viscosity at 100°F and an aniline point greater than 200°F

(DO NOT USE OILS WITH ADDITIVES, COMPOUNDED OILS CONTAINING SOLVENTS, GRAPHITE, DETERGENTS, OR SYNTHETIC OILS.)

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Lubricators

Micro-Mist

The Micro-Mist lubricators inject a micro-mist of oil into the flowing air stream to automatically provide the correct amount of internal lubrication for air tools and other pneumatic devices. This type of lubricator can be precisely adjusted to a very low oil flow rate because only a portion of the oil drops seen in the sight dome goes downstream. The lubricator should be used where only a very minute amount of lubricant is desirable or where it is necessary for the oil to remain in suspension in the air stream for long distances.

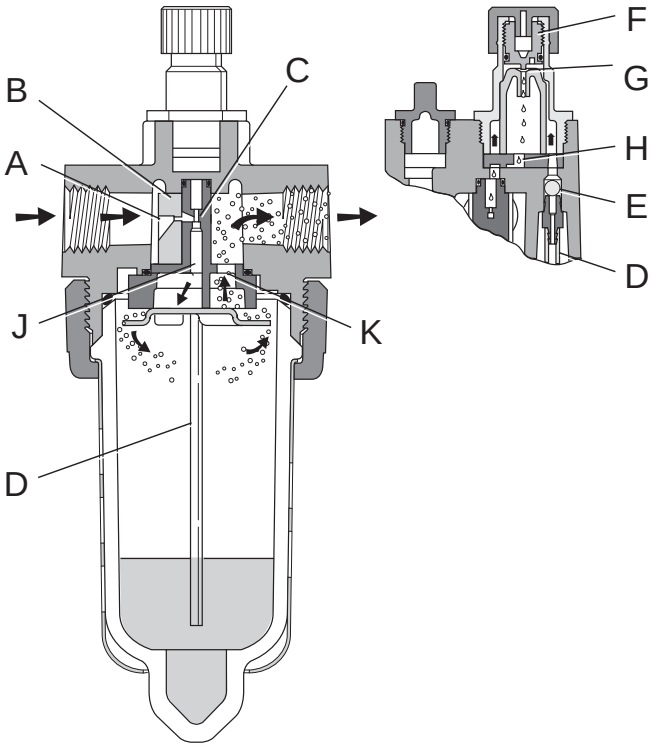
Operation

Air flowing through the unit goes through two paths. At low air flow rates, the majority of the air flows through venturi section **(A)**. The rest of the air slightly deflects and flows by the flapper **(B)**. The velocity of the air flowing through venturi section **(A)** creates a pressure drop at throat section **(C)**. This lower pressure allows oil to be forced from the reservoir through the pickup tube **(D)** past the check ball **(E)**, to the dome assembly where the rate of oil flow is controlled by metering screw **(F)**. Rotation of the metering screw **(F)** in the counterclockwise direction increases the oil flow rate; in the clockwise direction decreases the oil flow rate.

Oil then flows through the clearance between the inner and outer sight domes **(G)** where drops are formed and drip into the nozzle tube **(H)**. Here it is then broken into fine particles as it expands into the low pressure venturi. From there, the atomized oil flows through the precision orifice **(J)**. This action causes the larger particles of oil to fall back into the reservoir where it can recirculate through the system. The remaining mist of fine particles (5 micron or smaller – about 3% of which passed through the sight dome) is then carried through opening **(K)** where it joins and mixes with air that bypassed the flapper **(B)**. As air flow rate increases, the flapper **(B)** deflects, allowing most of the inlet air to bypass the venturi section **(A)**.

However, a proportion of the inlet air passes through the venturi, assuring that oil delivery increases linearly with increased air flow rate. This proportioning method is advantageous at low inlet flows because the venturi design remains efficient.

The check ball **(E)** prevents reverse oil flow down the pickup tube when air flow stops. Thus, oil delivery can resume immediately when air flow restarts. **Micro-Mist Lubricators can only be filled when the air supply is shut off.**



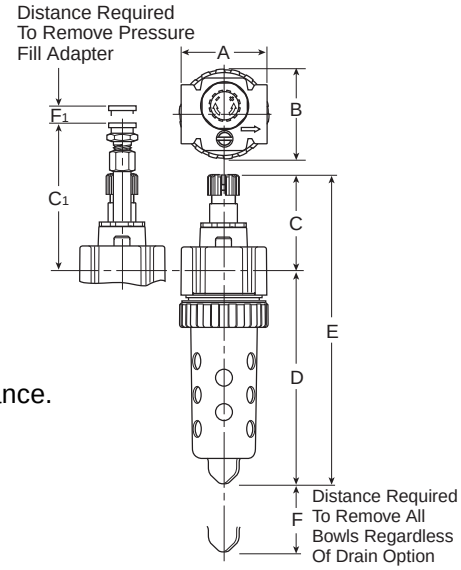
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15L Micro-Mist Lubricators – Economy



Features

- Proportional oil delivery over a wide range of air flows.
- Generates oil particles of 5 micron or smaller downstream to lubricate systems having complex piping arrangements.
- Precision needle valve assures repeatable oil delivery and provides simple adjustment of delivery rate.
- Ideal for low and high flow applications with changing air flow.
- Transparent sight dome for 360° visibility.
- Removable drip control knob for tamper resistance.
- High Flow: 1/4" – 40 SCFM§
  3/8" – 40 SCFM§



Port Size	NPT	
	Twist Drain	No Drain
Poly Bowl ‡ / Metal Guard		
1/4"	—	**15L12N***
3/8"	—	**15L22N***
Metal Bowl / Sight Gauge		
1/4"	**15L14N***	—
3/8"	**15L24N***	—

Standard part numbers shown bold. For other models refer to ordering information below.

‡ For polycarbonate bowl and sight dome, see Caution on page A2.

§ SCFM = Standard cubic feet per minute at 90 PSIG inlet and 5 PSIG pressure drop.

15L Lubricator Dimensions			
A 2.00 (51)	**B** 2.06 (52)	**C** 2.26 (57)	**C1** 3.35 (85)
D 5.12 (130)	**D†** 5.35 (136)	**E** 7.38 (187)	**E†** 7.61 (193)
F 1.77 (45)	**F†** .39 (10)		

Inches (mm)

† With Twist Drain.

Ordering Information

15L	1	2	N	*	—	—

Port Size
- **1 1/4 Inch**
- **2 3/8 Inch**

Bowl Options

Polycarbonate Bowl
- 1 No Drain
- **2 Metal Bowl Guard / No Drain**
- 5 Pressure Fill
- 6 Metal Bowl Guard / Pressure Fill

Metal Bowl
- **4 Sight Gauge / Twist Drain**
- 8 Sight Gauge / Pressure Fill

Fill Options
- B With Fill Plug
- F With Body Pressure Fill
- **N No Fill Plug**

Engineering Level
- * Will be Entered at Factory

Port Type
- **Blank NPT**
- 1* BSPP
- 2 BSPT

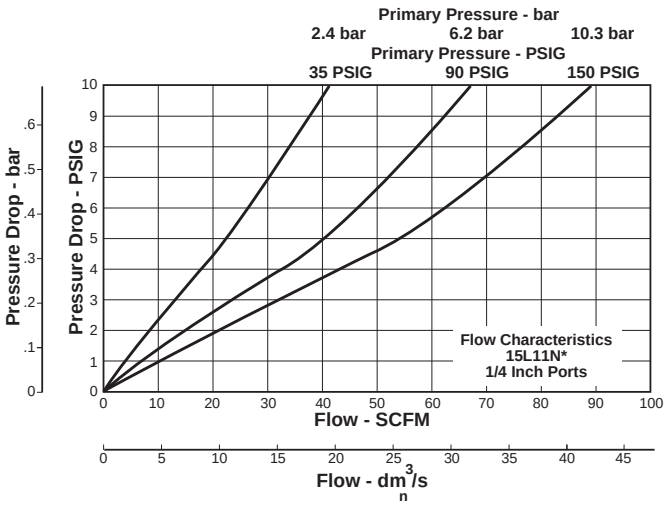
* 1/4 & 3/8 inch meet ISO 1179-1 Standard.

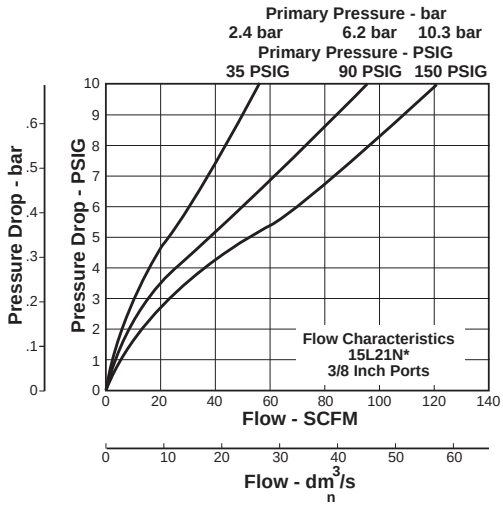
Options
- **Blank No Options**

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Technical Information





15L Micro-Mist Lubricator Kits & Accessories

Adjustment Knob P04121
Bowl Guard Kit PS905P
Bowl Kits –
Poly Bowl – No Drain PS946P
Metal Bowl – Sight Gauge / Twist Drain PS929P
Drain Kit – Twist Drain PS512P
Liquid Level Sensor Kit PS797P
Mounting Bracket Kit PS943P
Oil – 1 Gal. F442002
12 Quart Case F442003
4 Gallon Case F442005
Pressure Fill Adapter Kit PS916P
Service Kit PS948P
Sight Dome Kit PS740P
Sight Gauge Kit PS914P

Specifications

Bowl Capacity ..... 2.0 Ounces
Minimum Flow for Lubrication ..... 2 SCFM at 100 PSIG
Port Threads ..... 1/4, 3/8 Inch
Pressure & Temperature Ratings –
Polycarbonate Bowl – 0 to 150 PSIG (0 to 10.3 bar)
32°F to 125°F (0°C to 52°C)
Metal Bowl – 0 to 250 PSIG (0 to 17.2 bar)
32°F to 175°F (0°C to 80°C)
Suggested Lubricant ..... F442 Oil
Petroleum based oil of 100 to 200 SSU viscosity at 100°F and an aniline point greater than 200°F
(DO NOT USE OILS WITH ADDITIVES, COMPOUNDED OILS CONTAINING SOLVENTS, GRAPHITE, DETERGENTS, OR SYNTHETIC OILS.)
Weight ..... 1 lb. (0.45 kg)

Materials of Construction

Body ..... Zinc
Bowls – Transparent ..... Polycarbonate
Metal (With Sight Gauge) ..... Zinc
Bowl Guard ..... Steel
Collar ..... Plastic
Drains – Twist – Body & Nut ..... Plastic
Injector Meter Block & Base Assembly ..... Plastic
Seals ..... Nitrile
Sight Dome ..... Polycarbonate
Sight Gauge ..... Polyamide (Nylon)

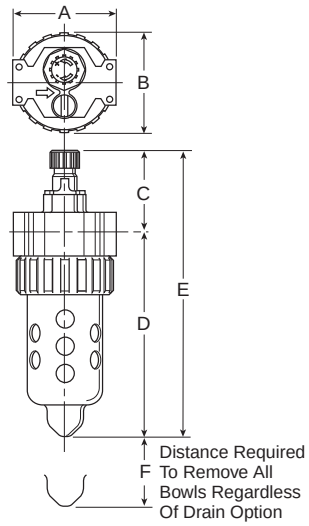
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16L Micro-Mist Lubricators – Compact



Features

- Proportional oil delivery over a wide range of air flows.
- Generates oil particles of 5 micron or smaller downstream to lubricate systems having complex piping arrangements.
- Precision needle valve assures repeatable oil delivery and provides simple adjustment of delivery rate.
- Ideal for low and high flow applications with changing air flow.
- Transparent sight dome for 360° visibility.
- Yellow fill cap identifies Micro-Mist Lubricator.
- High Flow: 1/4" – 40 SCFM §
  3/8" – 60 SCFM §
  1/2" – 90 SCFM §



Port Size	NPT	
	Twist Drain	No Drain
Poly Bowl ‡ / Metal Guard		
1/4"	—	**16L12B***
3/8"	—	**16L22B***
1/2"	—	**16L32B***
Metal Bowl / Sight Gauge		
1/4"	**16L14B***	—
3/8"	**16L24B***	—
1/2"	**16L34B***	—

Standard part numbers shown bold. For other models refer to ordering information below.

‡ For polycarbonate bowl and sight dome, see Caution on page A2.

§ SCFM = Standard cubic feet per minute at 90 PSIG inlet and 5 PSIG pressure drop.

16L Lubricator Dimensions		
A 2.81 (71)	**B** 2.74 (70)	**C** 2.24 (57)
D 5.58 (142)	**D†** 5.69 (145)	**E** 7.82 (199)
E† 7.93 (201)	**F** 2.25 (57)	

Inches (mm)
†With Twist Drain.

Ordering Information

16L	1	2	B	*	—

Port Size
- **1 1/4 Inch**
- **2 3/8 Inch**
- **3 1/2 Inch**

Bowl Options

Polycarbonate Bowl
- 1 No Drain
- **2 Metal Bowl Guard / No Drain**
- 5 Pressure Fill
- 6 Metal Bowl Guard / Pressure Fill
- A Liquid Level Sensor
- B Metal Bowl Guard / Liquid Level Sensor
- J Auto Fill Device
- K Metal Bowl Guard / Auto Fill Device
- R Twist Drain
- N Metal Bowl Guard / Twist Drain

Metal Bowl
- **4 Sight Gauge / Twist Drain**
- 8 Sight Gauge / Pressure Fill
- D Sight Gauge / Liquid Level Sensor
- M Sight Gauge / Auto Fill Device

Options
- **B With Fill Plug**
- C With Fill Plug/Nylon Sight Dome
- F With Body Pressure Fill
- G With Body Pressure Fill / Nylon Sight Dome

Engineering Level
- * Will be Entered at Factory

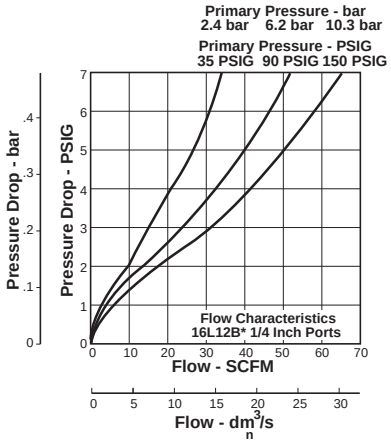
Port Type
- **Blank NPT**
- 1* BSPP
- 2 BSPT

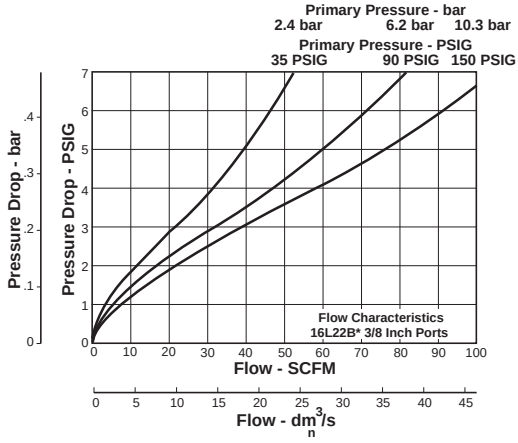
* 1/4 & 3/8 inch meet ISO 1179-1 Standard.

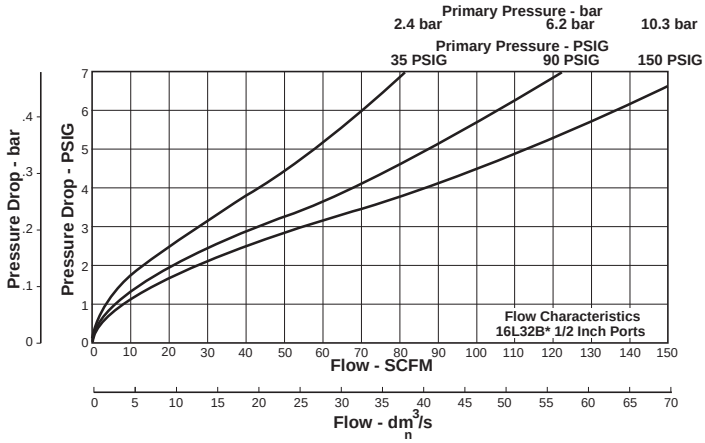
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Technical Information







16L Micro-Mist Lubricator Kits & Accessories

Adjustment Knob P04121
Bowl Guard Kit PS705P
Bowl Kits –
Poly Bowl – No Drain PS746P
Twist Drain PS717P
Pressure Fill PS719P
Remote Fill PS728P
Metal Bowl – Sight Gauge / Twist Drain PS729P
Sight Gauge / Pressure Fill PS720P
Drain Kit – Twist Drain PS512P
Fill Cap Kit PS742P
Liquid Level Sensor Kit PS797P
Lubricator Service Kit PS748P
Mounting Bracket Kit PS743P
Oil – 1 Gal F442002
12 Quart Case F442003
4 Gallon Case F442005
Pressure Fill Adapter Kit PS716P
Pressure Fill Button P11912
Remote Auto-Fill Device PS505CP
Sight Dome / Fill Cap Kit PS739P
Sight Dome Kit PS740P
Nylon Sight Dome Kit PS740N

Specifications

Bowl Capacity ..... 2.60 Ounces
Minimum Flow for Lubrication ..... 1 SCFM at 100 PSIG
Port Threads ..... 1/4, 3/8, 1/2 Inch
Pressure & Temperature Rating –
Polycarbonate Bowl – 0 to 150 PSIG (0 to 10.3 bar)
32°F to 125°F (0°C to 52°C)
Metal Bowl – 0 to 250 PSIG (0 to 17.2 bar)
32°F to 175°F (0°C to 80°C)
Suggested Lubricant ..... F442 Oil
Petroleum based oil of 100 to 200 SSU viscosity at 100°F and an aniline point greater than 200°F (DO NOT USE OILS WITH ADDITIVES, COMPOUNDED OILS CONTAINING SOLVENTS, GRAPHITE, DETERGENTS, OR SYNTHETIC OILS.)
Weight ..... 1.2 lb. (.5 kg)

Materials of Construction

Body ..... Zinc
Bowls – Transparent ..... Polycarbonate
Metal (With Sight Gauge) ..... Zinc
Bowl Guard ..... Steel
Collar ..... Plastic
Drain – Twist – Body & Nut ..... Plastic
Injector Meter Block & Base Assembly ..... Plastic
Seals ..... Nitrile
Sight Dome ..... Polycarbonate
Sight Gauge ..... Polyamide (Nylon)

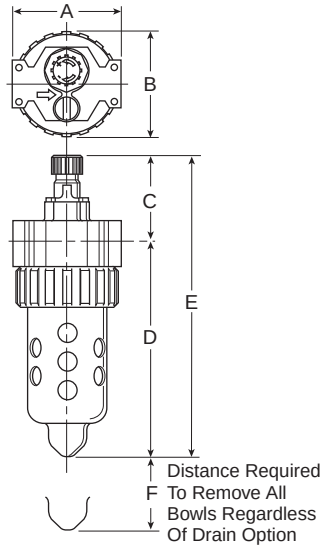
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17L Micro-Mist Lubricators – Standard



Features

- Proportional oil delivery over a wide range of air flows.
- Generates oil particles of 5 micron or smaller downstream to lubricate systems having complex piping arrangements.
- Precision needle valve assures repeatable oil delivery and provides simple adjustment of delivery rate.
- Ideal for low and high flow applications with changing air flow.
- Transparent sight dome for 360° visibility.
- Yellow fill cap identifies Micro-Mist Lubricator.
- High Flow: 3/8" – 60 SCFM§
  1/2" – 90 SCFM§
  3/4" – 90 SCFM§



Port Size	NPT	
	Twist Drain	No Drain
Poly Bowl ‡ / Metal Guard		
3/8"	—	**17L22B***
1/2"	—	**17L32B***
3/4"	—	**17L42B***
Metal Bowl / Sight Gauge		
3/8"	**17L24B***	—
1/2"	**17L34B***	—
3/4"	**17L44B***	—

Standard part numbers shown bold. For other models refer to ordering information below.

‡ For polycarbonate bowl and sight dome, see Caution on page A2.

§ SCFM = Standard cubic feet per minute at 90 PSIG inlet and 5 PSIG pressure drop.

17L Lubricator Dimensions		
A 3.24 (82)	**B** 3.25 (83)	**C** 2.41 (61)
D 6.86 (174)	**D†** 6.95 (177)	**E** 9.09 (231)
E† 9.35 (237)	**F** 2.75 (70)	

Inches (mm)

† With Twist Drain.

Ordering Information

17L	2	2	B	*	—

Port Size

- **2 3/8 Inch**
- **3 1/2 Inch**
- **4 3/4 Inch**

Bowl Options

Polycarbonate Bowl

- 1 No Drain
- **2 Metal Bowl Guard / No Drain**
- 5 Pressure Fill
- 6 Metal Bowl Guard / Pressure Fill
- A Liquid Level Sensor
- B Metal Bowl Guard / Liquid Level Sensor
- J Auto Fill Device
- K Metal Bowl Guard / Auto Fill Device
- R Twist Drain
- N Metal Bowl Guard / Twist Drain

Metal Bowl

- **4 Sight Gauge / Twist Drain**
- 8 Sight Gauge / Pressure Fill
- D Sight Gauge / Liquid Level Sensor
- M Sight Gauge / Auto Fill Device

Options

- **B With Fill Plug**
- C With Fill Plug/Nylon Sight Dome
- F With Body Pressure Fill
- G With Body Pressure Fill / Nylon Sight Dome

Engineering Level

- * Will be Entered at Factory

Port Type

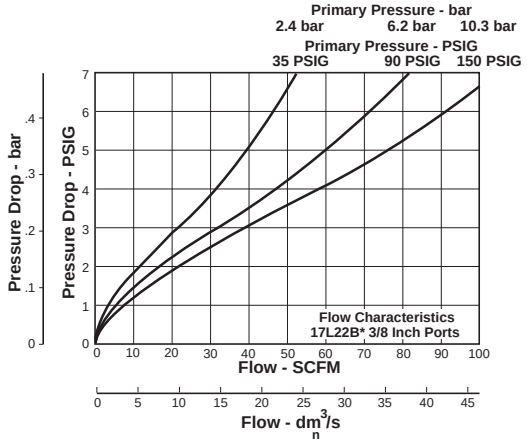
Blank	NPT
1	BSPP
2	BSPT

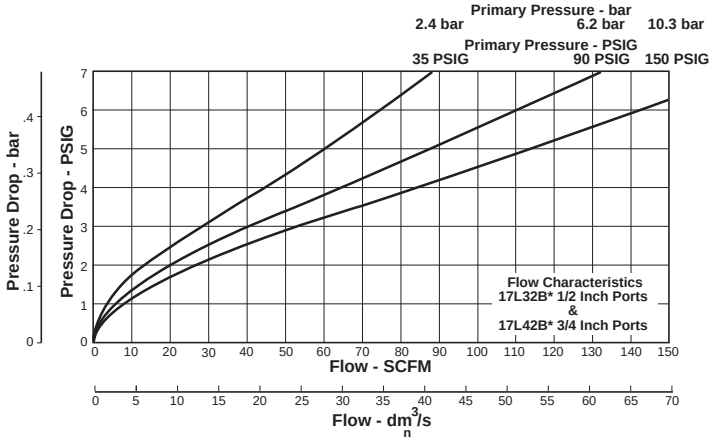
* 3/8 & 1/2 inch meet ISO 1179-1 Standard.

BOLD ITEMS ARE MOST POPULAR.

Parker Hannifin Corporation
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Technical Information





17L Micro-Mist Lubricator Kits & Accessories

Adjustment Knob P04121
Bowl Guard Kit PS805P
Bowl Kits –
Poly Bowl – No Drain PS846P
Twist Drain PS817P
Pressure Fill PS819P
Remote Fill PS828P
Metal Bowl – Sight Gauge / Twist Drain PS829P
Sight Gauge / Pressure Fill PS820P
Drain Kit – Twist Drain PS512P
Fill Cap Kit PS742P
Liquid Level Sensor Kit PS797P
Lubricator Service Kit PS748P
Mounting Bracket Kit PS843P
Oil – 1 Gal. F442002
12 Quart Case F442003
4 Gallon Case F442005
Pressure Fill Adapter Kit PS716P
Pressure Fill Button P11912
Remote Auto-Fill Device PS505CP
Sight Dome / Fill Cap Kit PS739P
Sight Dome Kit PS740P
Nylon Sight Dome Kit PS740N

Specifications

Bowl Capacity ..... 4.9 Ounces
Minimum Flow for Lubrication ..... 1 SCFM at 100 PSIG
Port Threads ..... 3/8, 1/2, 3/4 Inch
Pressure & Temperature Rating –
Polycarbonate Bowl – 0 to 150 PSIG (0 to 10.3 bar)
32°F to 125°F (0°C to 52°C)
Metal Bowl – 0 to 250 PSIG (0 to 17.2 bar)
32°F to 175°F (0°C to 80°C)
Suggested Lubricant ..... F442 Oil
Petroleum based oil of 100 to 200 SSU viscosity
at 100°F and an aniline point greater than 200°F
(DO NOT USE OILS WITH ADDITIVES,
COMPOUNDED OILS CONTAINING SOLVENTS,
GRAPHITE, DETERGENTS, OR SYNTHETIC OILS.)
Weight ..... 1.9 lb. (.9 kg)

Materials of Construction

Body ..... Zinc
Bowls – Transparent ..... Polycarbonate
Metal (With Sight Gauge) ..... Zinc
Bowl Guard ..... Steel
Collar ..... Plastic or Metal
Drain – Twist – Body & Nut ..... Plastic
Injector Meter Block & Base Assembly ..... Plastic
Seals ..... Nitrile
Sight Dome ..... Polycarbonate
Sight Gauge ..... Polyamide (Nylon)

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Mist Lubricators

- Pipe Sizes 1/8 thru 2 Inch
- Flows to 1000 SCFM
- Pressures to 250 PSIG

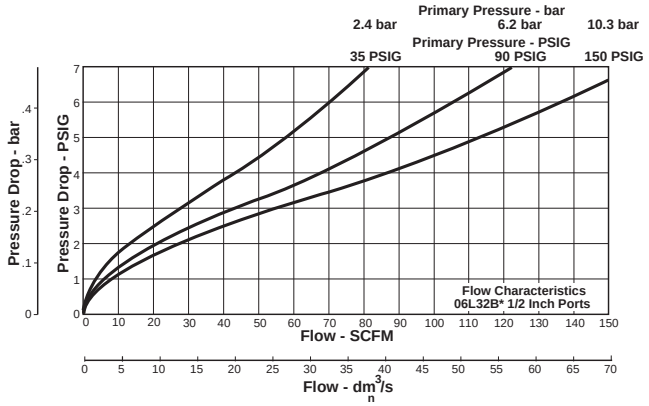
Mist Air Lubricators are designed to provide lubrication for most general applications in a pneumatic system. Units should be installed close to the application ensuring effective distribution of oil to pneumatic components.

- Miniature 02L Series, 1/4 and 3/8 Inch
- Miniature 04L Series, 1/8 and 1/4 Inch
- Miniature P3A-LA Series, 1/8 and 1/4 Inch
- Compact 06L Series, 1/4, 3/8 and 1/2 Inch
- Standard 07L Series, 3/8, 1/2 and 3/4 Inch
- Hi-Flow P3NL Series, 3/4, 1 and 1-1/2 Inch
- Hi-Flow L606 Series, 3/4, 1, 1-1/4 and 1-1/2 Inch
- Hi-Flow 09L Series, 2 Inch

Lubricator Selection

1. Determine maximum system flow requirements.
2. Determine maximum allowable pressure drop at rated flow in SCFM.
3. Refer to flow chart and select lubricator by choosing the curve that offers minimum pressure drop at desired flow in SCFM.

Reading Flow Charts to Size Mist Lubricators



Once the required flow is determined for a pneumatic application the lubricator can be selected by using the flow chart. To read the lubricator flow chart, first determine the inlet pressure that will be used. Find the appropriate pressure curve on the graph. Each graph will contain three pressure curves. If the required inlet pressure is not on the graph, interpolate a similar curve for the required pressure. Next, determine the acceptable pressure drop across the lubricator and locate it on the vertical axis. Find the intersection point of the acceptable pressure drop and the inlet pressure curve. At this point follow a vertical path downward to view the flow in SCFM.
If the flow is too low, select a larger port size or body size to give the required flow. If the flow is higher than necessary, select a smaller port size or body size to give the required flow.

F442 Oil



Quantity	Part Numbers
1 Quart	F442001
1 Gallon	F442002
12 Quart Case	F442003
4 Gallon Case	F442005

Petroleum based oil of 100 to 200 SSU viscosity at 100°F and an aniline point greater than 200°F

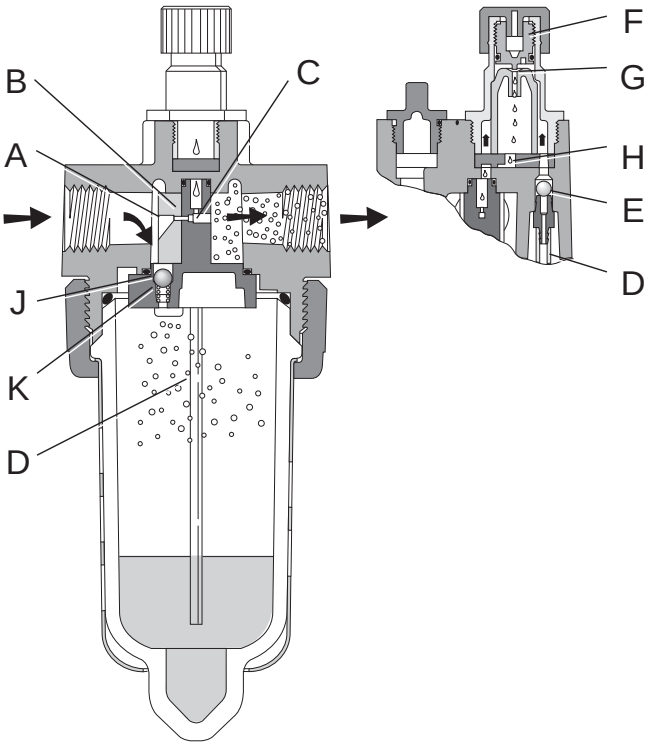
(DO NOT USE OILS WITH ADDITIVES, COMPOUNDED OILS CONTAINING SOLVENTS, GRAPHITE, DETERGENTS, OR SYNTHETIC OILS.)

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Lubricators

Mist

These lubricators inject an oil aerosol into the flowing air stream to automatically provide the proper amount of internal lubrication to air operated tools or other pneumatic devices.



Operation

Air flowing through the unit goes through two paths. At low air flow rates, the majority of the air flows through venturi section **(A)**. The rest of the air slightly deflects and flows by the flapper **(B)**, restrictor disc **(M)** on the 09L. The velocity of the air flowing through venturi section **(A)** creates a pressure drop at throat section **(C)**. This lower pressure allows oil to be forced from the reservoir through the pickup tube **(D)** past the check ball **(E)**, to the dome assembly where the rate of oil flow is controlled by metering screw **(F)**. Rotation of the metering screw **(F)** in the counterclockwise direction increases the oil flow rate; in the clockwise direction decreases the oil flow rate. Oil then flows through the clearance between inner and outer sight domes **(G)** where drops are formed and drip into the nozzle tube **(H)**. On the 09L, oil flows through the drip tube **(F)** where drops are formed and drip into the throat section **(C)**. Here it is then broken into fine particles and mixed with the swirling air to be carried to the venturi outlet where it joins the air by passing the flapper **(B)**, **(M)**. As air flow rate increases, the flapper **(B)**, **(M)** deflects, allowing a greater part of the additional air to bypass the venturi section **(A)**. This assures the oil delivery rate increases linearly with increased air flow rate. The check ball **(E)** assures that when there is no oil flow the oil in the pickup tube does not return to the reservoir.

The bowl can be filled under pressure due to the action of the check ball **(J)**. When the fill cap is removed, air in the bowl escapes and pressure forces the check ball **(J)** to nearly seal at **(K)**. When the fill cap is replaced, the small amount of air flow past check ball **(J)** builds up pressure and together with the spring forces the check ball **(J)** off seat **(K)**, letting full line pressure into the bowl.

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02L Lubricator – Miniature



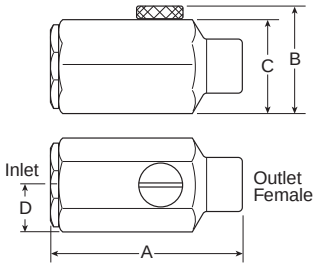


Features

- Extends the service life of air operated hand tools.
- Reduces downtime of air operated equipment, saves money.
- Small / lightweight.
- Automatic lubrication with air tool operation.
- Adjustable oil flow.
- Corrosion resistant.
- Full swivel outlet port.

Application

In-Line Lubricators assure proper lubrication for small pneumatic hand tools. These in-line lubricators put the oil source right at the tool. Oil capacity is 1/4 oz. (1 ml), enough to last through an average 8-hour shift. This lubricator requires cyclical or intermittent airflow for proper operation, and consequently works best when installed at the tool inlet or on a short hose near the tool. The 02L cannot be filled under pressure.



Dimensions

Part Number	A	B	C	D
02LFB	2.65 (67)	1.305 (33)	1.125 (28.5)	.65 (16.5)
02L1B	2.93 (74)	1.305 (33)	1.125 (28.5)	.65 (16.5)
02L2B	3.19 (81)	1.305 (33)	1.125 (28.5)	.65 (16.5)

Inches (mm)

Ordering Information

Port Size	Female Threads Inlet / Female Threads Outlet	Female Threads Inlet / Male Threads Outlet
1/4"	**02LFB**	**02L1B**
3/8"	**N/A**	**02L2B**

Specifications

Flow Capacity* (1/4) ..... 29 SCFM (13.6 dm^3/s)
(3/8) ..... 30 SCFM (14.2 dm^3/s)
Operating Temperature ..... 32° to 150°F (0° to 65.5°C)
Maximum Supply Pressure ..... 200 PSIG (13.8 bar)
Oil Capacity ..... 0.25 oz. (7.4 cm^3)
Port Size ..... 1/4, 3/8 NPT / BSPT
Weight ..... 0.2 lb. (0.1 kg)

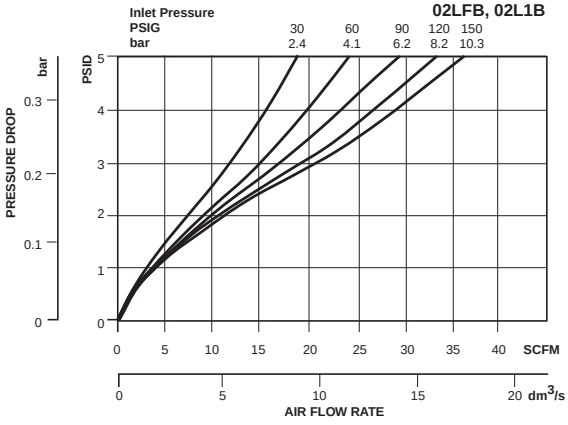
* Inlet pressure 90 PSIG (6.2 bar). Pressure drop 5 PSID (0.3 bar).

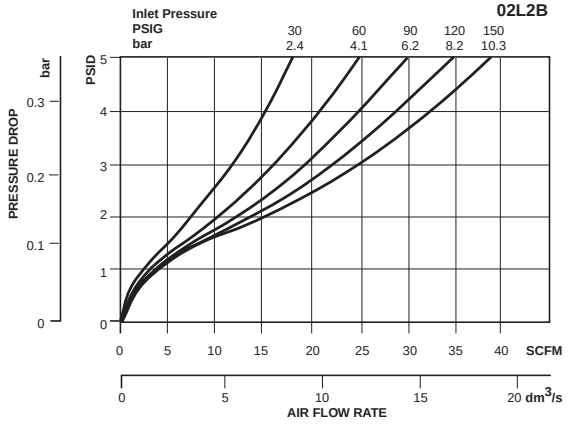
Materials of Construction

Body ..... Aluminum
Seals ..... Nitrile
Suggested Lubricant F442 Oil
Petroleum based oil of 100 to 200 SSU viscosity at 100°F and an aniline point greater than 200°F(DO NOT USE OILS WITH ADDITIVES,COMPOUNDED OILS CONTAINING SOLVENTS, GRAPHITE, DETERGENTS, OR SYNTHETIC OILS.)
Oil –1 Gal F442002
Quart Case F442003
Gallon Case F442005

Replacement Kits

Fill Plug Kit – Brass Fill Plug and O-ring PS434
O-ring Repair Kit PS435





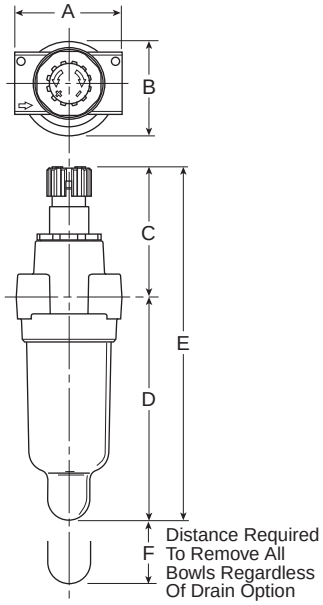
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04L Mist Lubricators – Miniature



Features

- Proportional oil delivery over a wide range of air flows.
- Precision needle valve assures repeatable oil delivery and provides simple adjustment of delivery rate.
- Ideal for low and high flow applications with changing air flow.
- Transparent sight dome for 360° visibility.
- High Flow: 1/8" – 20 SCFM§
  1/4" – 20 SCFM§



Port Size	NPT	
	Twist Drain	No Drain
Poly Bowl ‡		
1/8"	—	**04L00G***
1/4"	—	**04L10G***
Metal Bowl without Sight Gauge		
1/8"	**04L03G***	—
1/4"	**04L13G***	—

Standard part numbers shown bold. For other models refer to ordering information below.

‡ For polycarbonate bowl and sight dome, see Caution on page A2.

§ SCFM = Standard cubic feet per minute at 90 PSIG inlet and 5 PSIG pressure drop.

04L Lubricator Dimensions		
A 1.73 (44)	**B** 1.56 (40)	**C** 2.16 (55)
D 3.64 (92)	**D†** 3.78 (96)	**E** 5.80 (147)
E† 5.94 (151)	**F** 1.60 (41)	

Inches (mm)

† With Twist Drain.

Ordering Information

04L	1	0	G	*	—

Port Size

0 1/8 Inch
1 1/4 Inch

Bowl Options

Polycarbonate Bowl	Metal Bowl
0 Without Drain	**3 Twist Drain**
1 Twist Drain	

Body

G Without Tamperproof Cap. No Fill Plug

Engineering Level

* Will be Entered at Factory

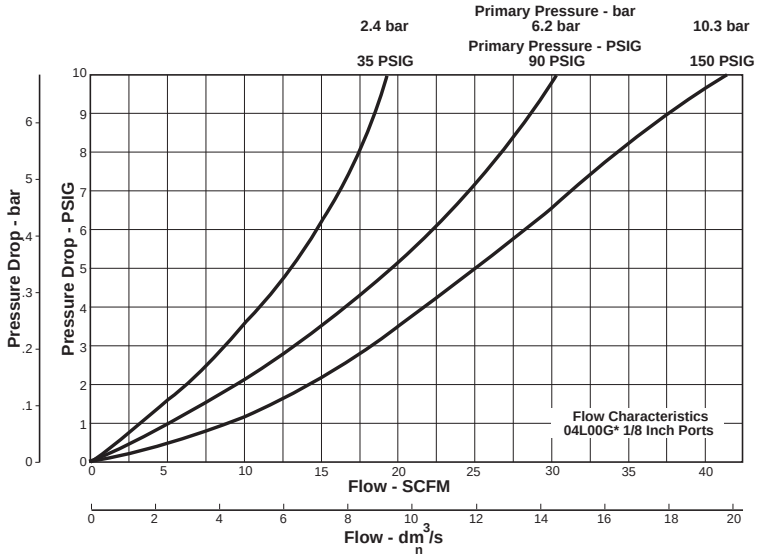
Port Type

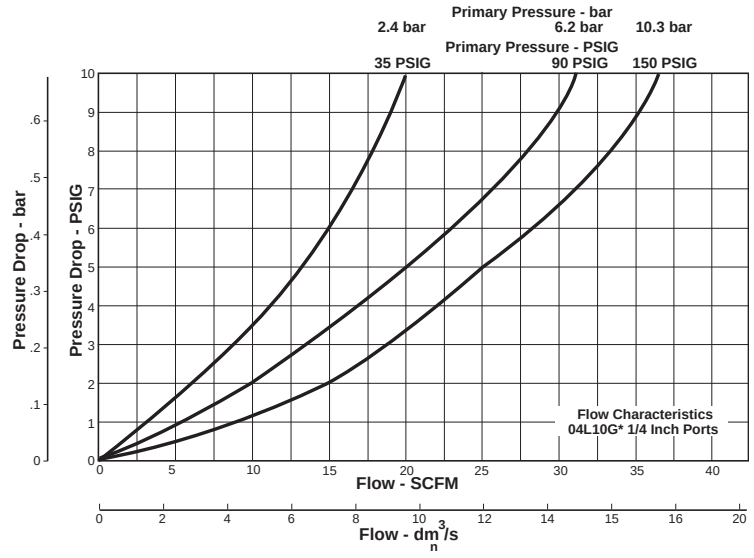
Blank	NPT
1	BSPP
2	BSPT

BOLD ITEMS ARE MOST POPULAR.

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Pneumatic Division
Richland, Michigan
www.parker.com/pneumatics

Technical Information





04L Mist Lubricator Kits & Accessories

Bowl Kits –

Poly Bowl – No Drain PS421P
Twist Drain PS420P

Metal Bowl – Twist Drain (No Sight Gauge) PS447BP

Mounting Bracket Kit PS419

Oil – 1 Gal. F442002
12 Quart Case F442003
4 Gallon Case F442005

Specifications

Bowl Capacity ..... 1 Ounce

Minimum Flow for Lubrication ..... 0.5 SCFM at 100 PSIG

Port Threads ..... 1/8, 1/4 Inch

Pressure & Temperature Ratings –

Polycarbonate Bowl – 0 to 150 PSIG (0 to 10.3 bar)
32°F to 125°F (0°C to 52°C)

Metal Bowl – 0 to 250 PSIG (0 to 17.2 bar)
32°F to 175°F (0°C to 80°C)

Suggested Lubricant – ..... F442 Oil

Petroleum based oil of 100 to 200 SSU viscosity at 100°F and an aniline point greater than 200°F

(DO NOT USE OILS WITH ADDITIVES, COMPOUNDED OILS CONTAINING SOLVENTS, GRAPHITE, DETERGENTS, OR SYNTHETIC OILS.)

Weight ..... 0.4 lb. (0.18 kg)

Materials of Construction

Body ..... Zinc

Bowls – Transparent ..... Polycarbonate
Metal (Without Sight Gauge) ..... Zinc

Drains – Twist – Body & Nut ..... Plastic

Seals ..... Nitrile

Sight Dome ..... Polycarbonate

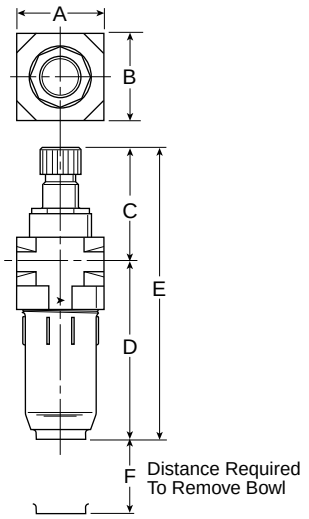
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P3A-LA Mist Lubricators – Miniature



Features

- Lightweight Plastic Body
- Proportional oil delivery over a wide range of air flow.
- Precision needle valve assures repeatable oil delivery and provides simple adjustments.
- Transparent sight dome for 360° visibility.



Port Size	NPT
	No Drain
Poly Bowl ‡	
1/8"	**P3A-LA91ANNP**
1/4"	**P3A-LA92ANNP**

Standard part numbers shown bold. For other models refer to ordering information below.

‡ For polycarbonate bowl and sight dome, see Caution on page A2.

P3A Lubricator Dimensions		
A 1.57 (40)	**B** 1.57 (40)	**C** 2.44 (62)
D 3.50 (89)	**E** 5.51 (140)	**F** 2.75 (70)

Inches (mm)

† With Twist Drain.

Ordering Information

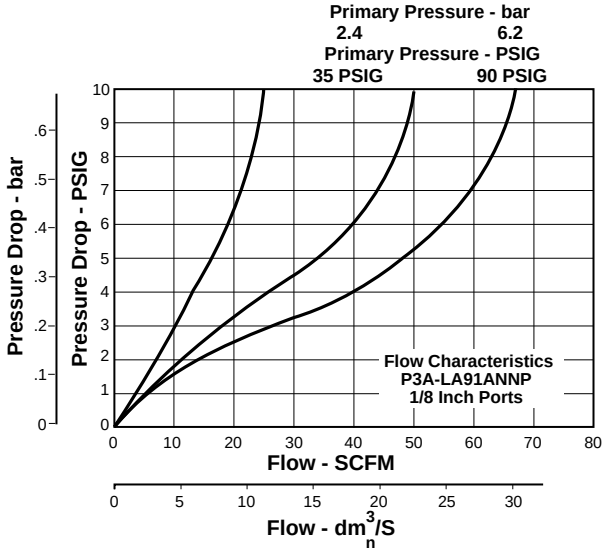
P3A-LA	9	1	A	N	N	P

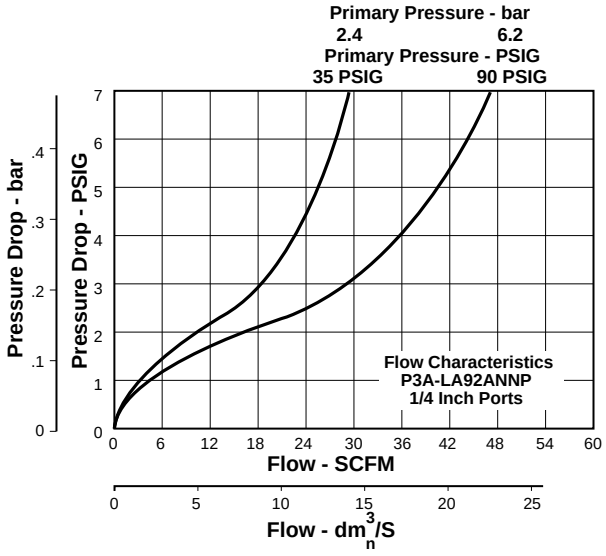
Port Type	Port Size	Bowl / Drain	Fill Type	Assembly Option	Bowl Material
9 NPT Female	**1 1/8 Inch** **2 1/4 Inch**	Polycarbonate Bowl **A No Drain**	**N No Fill Plug**	**N None**	**P Polycarbonate**

BOLD ITEMS ARE MOST POPULAR.

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Technical Information





P3A Lubricator Kits and Accessories

Oil – 1 Gal. F442002
12 Quart Case F442003
4 Gallon Case F442005

Plastic Bowl – No Drain P3A-KA00BAP

Service Kit P3A-KA00RLN

Specifications

Bowl Capacity ..... 0.9 Ounces

Minimum Flow for Lubrication ..... 0.4 SCFM at 100 PSIG

Operating Pressure Range	**PSIG**	**bar**
Maximum	120	8.3

Operating Temperature Range ..... 32°F to 125°F (0°C to 52°C)

Port Threads ..... 1/8, 1/4 Inch

Suggested Lubricant ..... F442 Oil
Petroleum based oil of 100 to 200 SSU viscosity at 100°F and an aniline point greater than 200°F.
(DO NOT USE OILS WITH ADDITIVES, COMPOUNDED OILS CONTAINING SOLVENTS, GRAPHITE, DETERGENTS, OR SYNTHETIC OILS).

Weight ..... 0.18 lb. (0.08 kg)

Materials of Construction

Body ..... Plastic

Bowl ..... Transparent Polycarbonate

Metering Screw ..... Plastic

Port Inserts ..... Brass

Seals ..... Nitrile

Sight Dome ..... Transparent Polycarbonate

Venturi & Check Valve Assembly ..... Plastic

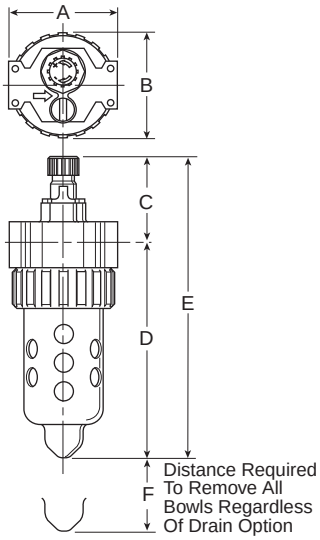
Parker Hannifin Corporation
Pneumatic Division
Richland, Michigan
www.parker.com/pneumatics

06L Mist Lubricators – Compact



Features

- Proportional oil delivery over a wide range of air flows.
- Precision needle valve assures repeatable oil delivery and provides simple adjustment of delivery rate.
- Bowl can be filled while air line is under pressure.
- Transparent sight dome for 360° visibility.
- High Flow: 1/4" – 40 SCFM§
  3/8" – 60 SCFM§
  1/2" – 90 SCFM§



Port Size	NPT	
	Twist Drain	No Drain
Poly Bowl ‡ / Metal Guard		
1/4"	—	**06L12B***
3/8"	—	**06L22B***
1/2"	—	**06L32B***
Metal Bowl / Sight Gauge		
1/4"	**06L14B***	—
3/8"	**06L24B***	—
1/2"	**06L34B***	—

Standard part numbers shown bold. For other models refer to ordering information below.

‡ For polycarbonate bowl and sight dome, see Caution on page A2.

§ SCFM = Standard cubic feet per minute at 90 PSIG inlet and 5 PSIG pressure drop.

06L Lubricator Dimensions		
A 2.81 (71)	**B** 2.74 (70)	**C** 2.24 (57)
D 5.58 (142)	**D†** 5.69 (145)	**E** 7.82 (199)
E† 7.93 (201)	**F** 2.25 (57)	

Inches (mm)
†With Twist Drain.

Ordering Information

06L	1	2	B	*	—

Port Size
1 1/4 Inch
2 3/8 Inch
3 1/2 Inch

Bowl Options	
Polycarbonate Bowl	Metal Bowl
1 No Drain	**4 Sight Gauge / Twist Drain**
2 Metal Bowl Guard / No Drain	8 Sight Gauge / Pressure Fill
5 Pressure Fill	D Sight Gauge / Liquid Level Sensor
6 Metal Bowl Guard / Pressure Fill	M Sight Gauge / Auto Fill Device
A Liquid Level Sensor	
B Metal Bowl Guard / Liquid Level Sensor	
J Auto Fill Device	
K Metal Bowl Guard / Auto Fill Device	
R Twist Drain	
N Metal Bowl Guard / Twist Drain	

Options
B With Fill Plug
C With Fill Plug/Nylon Sight Dome
F With Body Pressure Fill
G With Body Pressure Fill / Nylon Sight Dome

Engineering Level
* Will be Entered at Factory

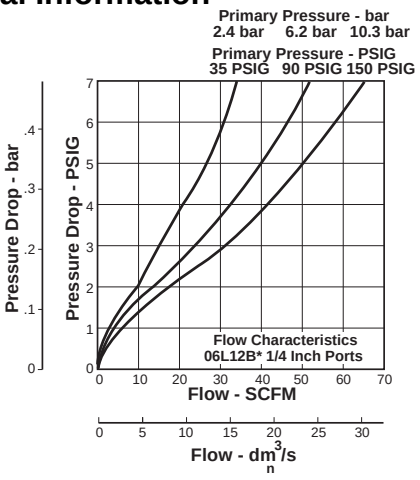
Port Type	
Blank	**NPT**
1*	BSPP
2	BSPT

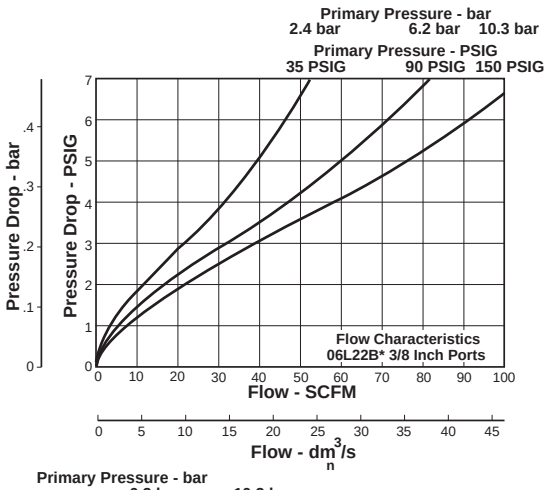
* 1/4 & 3/8 inch meet ISO 1179-1 Standard.

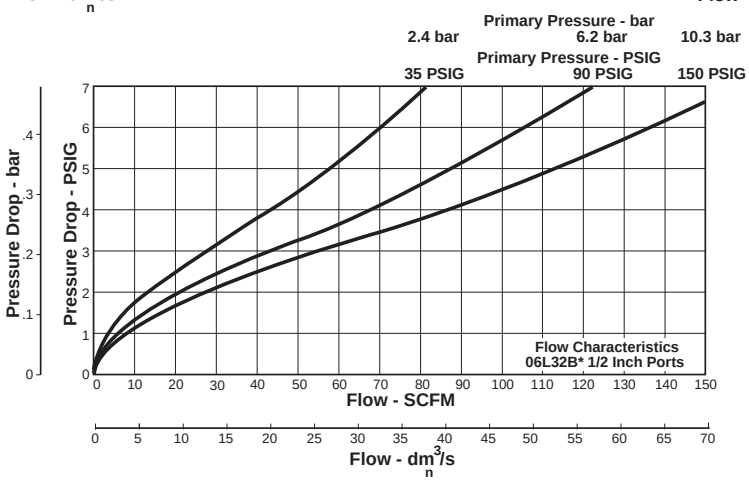
BOLD ITEMS ARE MOST POPULAR.

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Technical Information







06L Mist Lubricator Kits & Accessories

Adjustment Knob P04121
Bowl Guard Kit PS705P
Bowl Kits –
Poly Bowl – No Drain PS746P
Twist Drain PS717P
Pressure Fill PS719P
Remote Fill PS728P
Metal Bowl – Sight Gauge / Twist Drain PS729P
Sight Gauge / Pressure Fill PS720P
Drain Kit – Twist Drain PS512P
Fill Cap Kit PS741P
Liquid Level Sensor Kit PS797P
Lubricator Service Kit PS718P
Mounting Bracket Kit PS743P
Oil – 1 Gal. F442002
12 Quart Case F442003
4 Gallon Case F442005
Pressure Fill Adapter Kit PS716P
Pressure Fill Button P11912
Remote Auto-Fill Device PS505CP
Sight Dome / Fill Cap Kit PS738P
Sight Dome Kit PS740P
Nylon Sight Dome Kit PS740N

Specifications

Bowl Capacity ..... 2.9 Ounces
Minimum Flow for Lubrication ..... .5 SCFM At 100 PSIG
Port Threads ..... 1/4, 3/8, 1/2 Inch
Pressure & Temperature Rating –
Polycarbonate Bowl – 0 to 150 PSIG (0 to 10.3 bar)
32°F to 125°F (0°C to 52°C)
Metal Bowl – 0 to 250 PSIG (0 to 17.2 bar)
32°F to 175°F (0°C to 80°C)
Suggested Lubricant ..... F442 Oil
Petroleum based oil of 100 to 200 SUS viscosity
at 100°F and an aniline point greater than 200°F
(DO NOT USE OILS WITH ADDITIVES,
COMPOUNDED OILS CONTAINING SOLVENTS,
GRAPHITE, DETERGENTS, OR SYNTHETIC OILS.)
Weight ..... 1.2 lb. (0.5 kg)

Materials of Construction

Body ..... Zinc
Bowls – Transparent ..... Polycarbonate
Metal (With Sight Gauge) ..... Zinc
Bowl Guard ..... Steel
Collar ..... Plastic
Drain – Twist – Body & Nut ..... Plastic
Injector Meter Block & Base Assembly ..... Plastic
Seals ..... Nitrile
Sight Dome ..... Polycarbonate
Sight Gauge ..... Polyamide (Nylon)

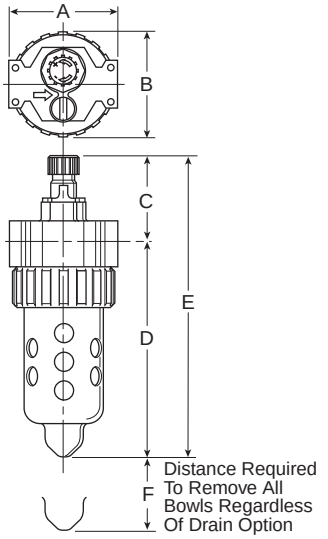
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07L Mist Lubricators – Standard



Features

- Proportional oil delivery over a wide range of air flows.
- Precision needle valve assures repeatable oil delivery and provides simple adjustment of delivery rate.
- Bowl can be filled while air line is under pressure.
- Transparent sight dome for 360° visibility.
- High Flow: 3/8" – 60 SCFM§
  1/2" – 90 SCFM§
  3/4" – 90 SCFM§



Port Size	NPT	
	Twist Drain	No Drain
Poly Bowl ‡ / Metal Guard		
3/8"	—	**07L22B***
1/2"	—	**07L32B***
3/4"	—	**07L42B***
Metal Bowl / Sight Gauge		
3/8"	**07L24B***	—
1/2"	**07L34B***	—
3/4"	**07L44B***	—

Standard part numbers shown bold. For other models refer to ordering information below.

‡ For polycarbonate bowl and sight dome, see Caution on page A2.

§ SCFM = Standard cubic feet per minute at 90 PSIG inlet and 5 PSIG pressure drop.

07L Lubricator Dimensions		
A 3.24 (82)	**B** 3.25 (83)	**C** 2.41 (61)
D 6.86 (174)	**D†** 6.95 (177)	**E** 9.09 (231)
E† 9.35 (237)	**F** 2.75 (70)	

Inches (mm)

† **With Twist Drain.**

Ordering Information

07L	2	2	B	*	—

Port Size

2 3/8 Inch
3 1/2 Inch
4 3/4 Inch

Bowl Options

Polycarbonate Bowl	Metal Bowl
1 No Drain	**4 Sight Gauge / Twist Drain**
2 Metal Bowl Guard / No Drain	8 Sight Gauge / Pressure Fill
5 Pressure Fill	D Sight Gauge / Liquid Level Sensor
6 Metal Bowl Guard / Pressure Fill	M Sight Gauge / Auto Fill Device
A Liquid Level Sensor	
B Metal Bowl Guard / Liquid Level Sensor	
J Auto Fill Device	
K Metal Bowl Guard / Auto Fill Device	
R Twist Drain	
N Metal Bowl Guard / Twist Drain	

Options

- **B With Fill Plug**
- C With Fill Plug/Nylon Sight Dome
- F With Body Pressure Fill
- G With Body Pressure Fill / Nylon Sight Dome

Engineering Level

* Will be Entered at Factory

Port Type

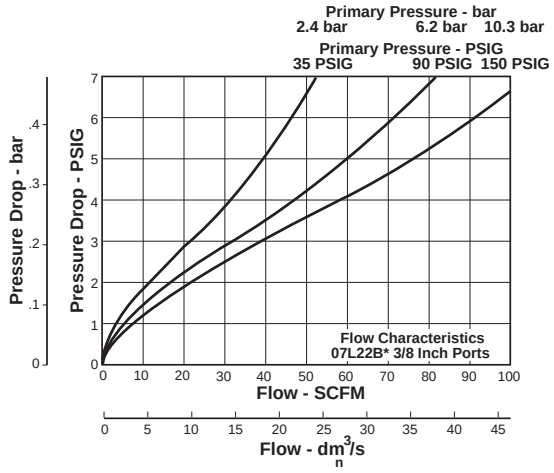
Blank	NPT
1*	BSPP
2	BSPT

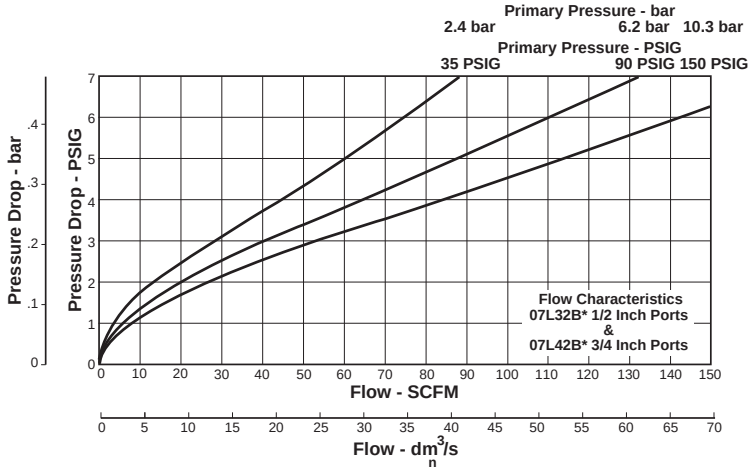
* 3/8 & 1/2 inch meet ISO 1179-1 Standard.

BOLD ITEMS ARE MOST POPULAR.

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Richland, Michigan
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Technical Information





07L Mist Lubricator Kits & Accessories

Adjustment Knob P04121
Bowl Guard Kit PS805P
Bowl Kits –
Poly Bowl – No Drain PS846P
Twist Drain PS817P
Pressure Fill PS819P
Remote Fill PS828P
Metal Bowl – Sight Gauge / Twist Drain PS829P
Sight Gauge / Pressure Fill PS820P
Drain Kit – Twist Drain PS512P
Fill Cap Kit PS741P
Liquid Level Sensor Kit PS797P
Lubricator Service Kit PS718P
Mounting Bracket Kit PS843P
Oil – 1 Gal. F442002
12 Quart Case F442003
4 Gallon Case F442005
Pressure Fill Adapter Kit PS716P
Pressure Fill Button P11912
Remote Auto-Fill Device PS505CP
Sight Dome / Fill Cap Kit PS738P
Sight Dome Kit PS740P
Nylon Sight Dome Kit PS740N

Specifications

Bowl Capacity ..... 6.0 Ounces
Minimum Flow for Lubrication ..... .5 SCFM At 100 PSIG
Port Threads ..... 3/8, 1/2, 3/4 Inch
Pressure & Temperature Rating –
Polycarbonate Bowl – 0 to 150 PSIG (0 to 10.3 bar)
32°F to 125°F (0°C to 52°C)
Metal Bowl – 0 to 250 PSIG (0 to 17.2 bar)
32°F to 175°F (0°C to 80°C)
Suggested Lubricant ..... F442 Oil
Petroleum based oil of 100 to 200 SUS viscosity
at 100°F and an aniline point greater than 200°F
(DO NOT USE OILS WITH ADDITIVES,
COMPOUNDED OILS CONTAINING SOLVENTS,
GRAPHITE, DETERGENTS, OR SYNTHETIC OILS.)
Weight ..... 1.9 lb. (0.9 kg)

Materials of Construction

Body ..... Zinc
Bowls – Transparent ..... Polycarbonate
Metal (With Sight Gauge) ..... Zinc
Bowl Guard ..... Steel
Collar ..... Plastic or Metal
Drain – Twist – Body & Nut ..... Plastic
Injector Meter Block & Base Assembly ..... Plastic
Seals ..... Nitrile
Sight Dome ..... Polycarbonate
Sight Gauge ..... Polyamide (Nylon)

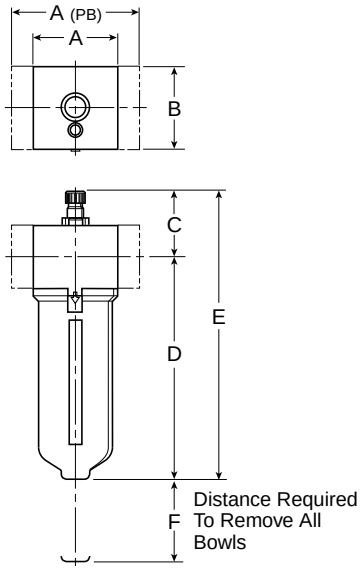
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Richland, Michigan
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P3NL Mist Lubricators – Hi-Flow



Features

- Port blocks (PB) available to provide 1-1/2" port extension to 1" ported bodies.
- Proportional oil delivery over a wide range of air flows.
- Bowl can be filled while air line is under pressure.
- Transparent sight dome for 360° visibility.
- High Flow: 3/4" – 240 SCFM§
  1" – 250 SCFM§
  1-1/2" – 260 SCFM§



Port Size	NPT
	No Drain
Metal Bowl / Sight Gauge	
3/4"	**P3NLA96LSN**
1"	**P3NLA98LSN**
1-1/2"#	**P3NLA9PLSN**

Standard part numbers shown bold. For other models refer to ordering information below

1" Port Body with 1-1/2" Port Block.

§ SCFM = Standard cubic feet per minute at 90 PSIG inlet and 5 PSIG pressure drop.

P3NL Lubricator Dimensions		
A 3.62 (92)	**APB** 5.91 (150)	**B** 3.62 (92)
C 2.81 (71)	**D** 9.00 (229)	**E** 11.81 (300)
F 4.92 (125)		

Inches (mm)

Ordering Information

P3N	L	A	9	8	L	S	N

Design Level

Port Type
- 1* G Thread (BSPP) Female
- 2 Rc Thread (BSPT) Female
- **9 NPT Female**

* 3/4 & 1 inch meet ISO 1179-1 Standard.

Port Size
- **6 3/4" (w/o Port Blocks)**
- **8 1" (w/o Port Blocks)**
- **P 1-1/2" Port Blocks (w/ 1" Ported Body)**

Type

Oil Mist
- **L w/ Polycarbonate Sight Dome**
- A w/ Nylon Sight Dome

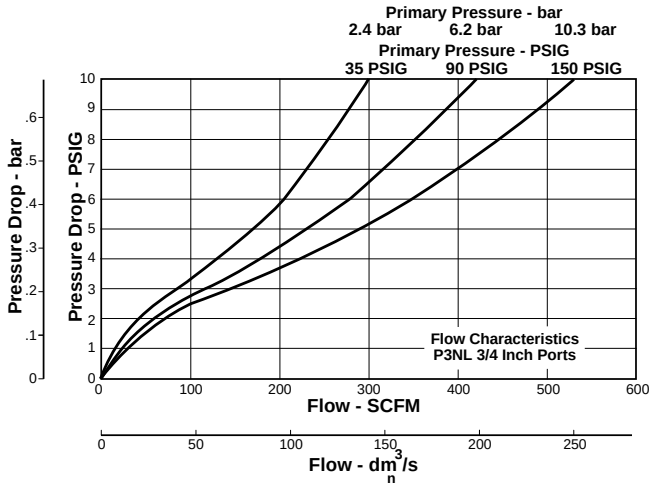
Bowl
- **S Metal Bowl w/ Sight Gauge**

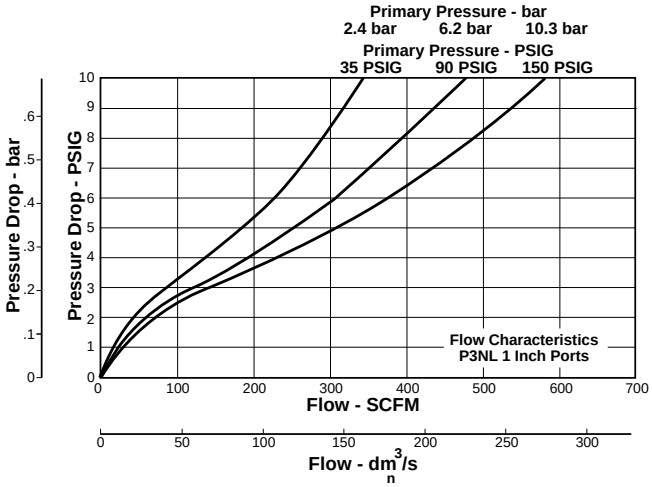
Drain / Fill Device
- A Auto Fill / Fill Plug
- **N No Drain, Solid Bowl / Fill Plug**
- M Twist Drain / Fill Plug
- H No Drain / Body Pressure Fill
- J Twist Drain / Body Pressure Fill

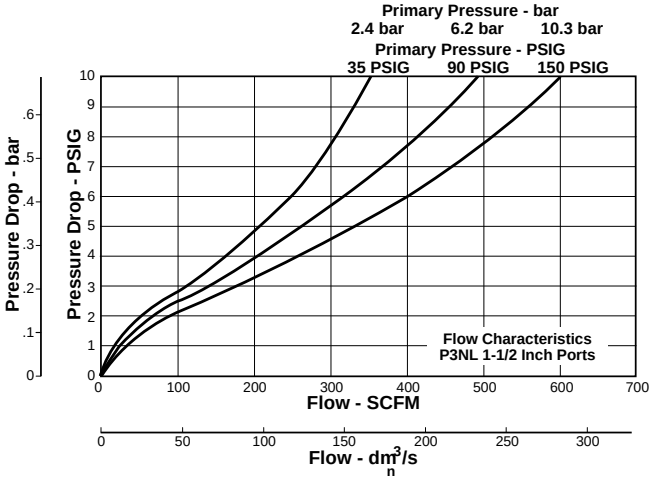
BOLD ITEMS ARE MOST POPULAR.

Parker Hannifin Corporation
Pneumatic Division
Richland, Michigan
www.parker.com/pneumatics

Technical Information







P3NL Lubricator Kits & Accessories

Adjustment Knob P04121

Bowl Kits –
Metal Bowl – Sight Gauge / Twist Drain..... P3NKA00BSM
Metal Bowl – Sight Gauge / No Drain P3NKA00BSN

Bowl Latch Kit C11A33

Drain Kit – Twist Drain PS512P

Fill Cap Kit P3NKA00PL

Sight Dome Kit – Polycarbonate PS740P
Nylon..... PS740N

Sight Gauge Kit P3NKA00PE

Pressure Fill Adapter Kit P3NKA00PK

Service Kit P3NKA00RL

Mounting Bracket Kit* P3NKA00MW

Oil – 1 Gal. F442002
12 Quart Case F442003
4 Gallon Case..... F442005

* If 1-1/2 BSPP E02 fittings are required, use P3NKA0BMW.

Specifications

Bowl Capacity ..... 18.0 Ounces

Minimum Flow for Lubrication ..... 6.6 SCFM at 100 PSIG

Pressure & Temperature Rating ..... 0 to 250 PSIG (0 to 17.2 bar)
32°F to 175°F (0°C to 80°C)

Suggested Lubricant ..... F442 Oil

Petroleum based oil of 100 to 200 SSU viscosity at 100°F and an aniline point greater than 200°F

(DO NOT USE OILS WITH ADDITIVES, COMPOUNDED OILS CONTAINING SOLVENTS, GRAPHITE, DETERGENTS, OR SYNTHETIC OILS.)

Weight – 3/4 Inch ..... 3.5 lb. (1.6 kg)
1 Inch ..... 3.5 lb. (1.6 kg)
1-1/2 Inch† ..... 4.6 lb. (2.1 kg)

Materials of Construction

Body, Bowl ..... Aluminum

Drains: Twist Drain (Optional) ..... Plastic

Injector Meter Block & Base Assembly ..... Plastic

Seals ..... Nitrile

Sight Dome ..... Polycarbonate

Sight Gauge ..... Polyamide (Nylon)

† 1" Port Body with 1-1/2" Port Block.

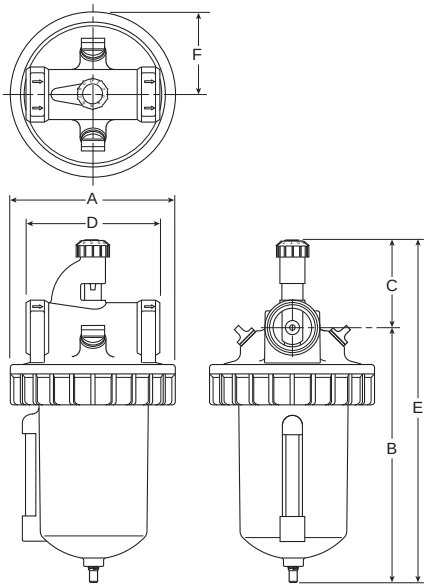
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L606 Standard Lubricators



Features

- Metal Bowl with Sight Gauge - Standard
- Polycarbonate Sight Dome
- Bowl can be Filled while Air Line is Under Pressure
- Proportional Oil Delivery Over a Wide Range of Air Flows
- Large Capacity Bowl
- Optional High Capacity Bowl(s) Available
- Precision Needle Valve Assures Repeatable Oil Delivery and Provides Simple Adjustment of Delivery Rate
- Automatic Fill Optional (Requires External Pressurized Oil Supply)
- High Flow: 3/4" - 325 SCFM§
  1" - 350 SCFM§



Port Size	NPT No Drain	BSPP No Drain
Zinc Bowl / Sight Gauge		
3/4"	**L606-06W**	L606G06W
1"	**L606-08W**	L606G08W
Aluminum Bowl 32 oz. without Sight Gauge		
3/4"	**L606-06E**	L606G06E
1"	**L606-08E**	L606G08E
Aluminum Bowl 64 oz. with Sight Gauge		
3/4"	**L606-06G**	L606G06G
1"	**L606-08G**	L606G08G

Bold Items are Most Popular.
For other models refer to ordering information below.

§ SCFM = Standard cubic feet per minute at 100 PSIG inlet, and 5 PSIG pressure drop.

L606 Lubricator Dimensions					
A	**B**	**C**	**D**	**E**	**F**
L606-06W, L606-08W					
4.97 (126)	7.25 (184)	2.63 (66.7)	4.06 (103)	9.88 (251)	2.48 (63.1)
L606-06E, L606-08E					
4.97 (126)	10.75 (273)	2.63 (66.7)	4.06 (103)	13.38 (340)	2.48 (63.1)
L606-06G, L606-08G					
5.00 (127)	9.40 (239)	2.62 (66)	4.06 (103)	12.02 (305)	2.50 (64)

inches
(mm)

Ordering Information

L	606	—	06	W		/**

Port Threads	
—	**NPT**
G	BSPP

Port Size	
06	**3/4 Inch**
08	**1 Inch**

Bowl	Capacity	Description	Size
E	32 oz.	Large Capacity without Sight Gauge with Drain	3/4" & 1"
G	64 oz.	Large Capacity with Sight Gauge	3/4" & 1"
W	**16 oz.**	**Metal with Sight Gauge & Drain**	**3/4" & 1"**

Options	
Blank	**None**
H	Button Head Fill Fitting
X9*	Manual Twist Drain (Increases Product Length by 9/16 Inch)

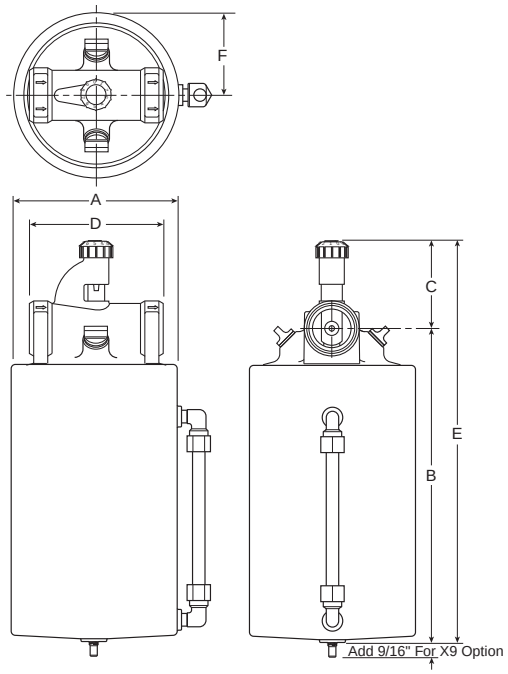
* Not Available with "W" Bowl.

Engineering Change Designator
Will be entered at factory.

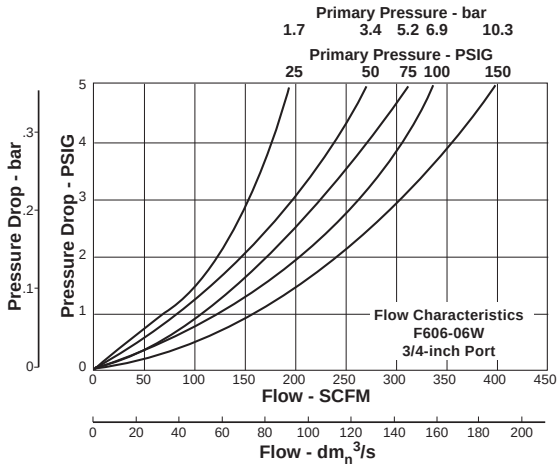
BOLD ITEMS ARE MOST POPULAR.

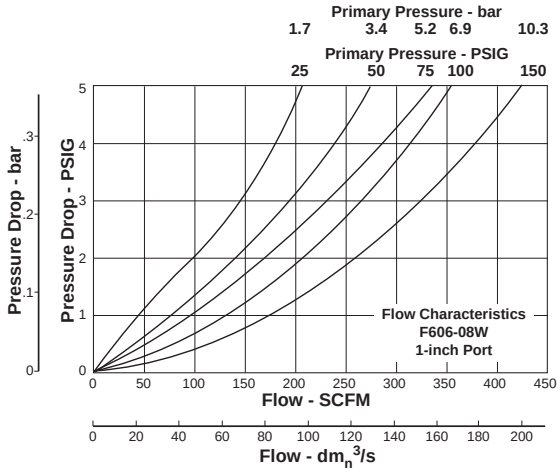
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Richland, Michigan
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Technical Information



L606-08G





L606 Lubricator Kits & Accessories

Adjusting Knob 606Y72

Bowl Kits –
- Aluminum (E) BK603B
- Aluminum with Sight Gauge (G) BK606X30B
- Zinc with Sight Gauge (W) BK609WB

Button Head Fill Fitting (M14 male thread) L606C14

Dip Tube Kit DTK606

Drip Spout Kit RK606SY

Mounting Bracket –
- 3/4 Inch units (2 required per unit) SA200AW57
- 1 Inch units (2 required per unit) SA200CW57

Oil – 1 Gal. F442002
- 12 Quart Case F442003
- 4 Gallon Case F442005

Repair Kits –
- Needle Valve Assembly (All) RK606Y
- Sight Gauge Bowl Repair Kit (W) RKB605WB
- Sight Gauge Bowl Repair Kit (G) RKB606X30B

Specifications

Bowl Capacity –
- Aluminum (E) ..... 32 Ounces
- Aluminum with Polycarbonate Sight Gauge (G) ..... 64 Ounces
- Zinc with Nylon Sight Gauge (W) ..... 16 Ounces

Port Threads ..... 3/4, 1 Inch

Pressure & Temperature Ratings –
- Aluminum Bowl (E) ..... 0 to 300 PSIG (0 to 20.4 bar) 40°F to 150°F (4.4°C to 65.6°C)
- Aluminum Bowl with Polycarbonate Sight Gauge (G) ..... 0 to 150 PSIG (0 to 10.2 bar) 40°F to 125°F (4.4°C to 52°C)
- Zinc Bowl with Nylon Sight Gauge (W) ..... 0 to 250 PSIG (0 to 17.2 bar) 40°F to 150°F (4.4°C to 65.6°C)

Weight –
- Aluminum Bowl (E) ..... 5.5 lb. (2.49 kg) / Unit 22.3 lb. (10.12 kg) / 4-Unit Master Pack
- Aluminum Bowl with Polycarbonate Sight Gauge (G) ..... 7.2 lb. (3.27 kg) / Unit 28.8 lb. (13.06 kg) / 4-Unit Master Pack
- Zinc Bowl with Nylon Sight Gauge (W) ..... 4.2 lb. (1.91 kg) / Unit 16.6 lb. (7.53 kg) / 4-Unit Master Pack

Materials of Construction

Body ..... Zinc

Bowls –
- (E) ..... Aluminum
- (G) ..... Aluminum with Polycarbonate Sight Gauge
- (W) ..... Zinc with Nylon Sight Gauge

Seals ..... Buna N

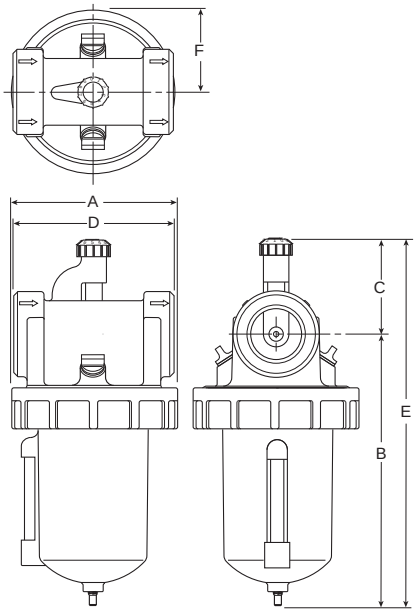
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Richland, Michigan
www.parker.com/pneumatics

L606 Standard Lubricators



Features

- Metal Bowl with Sight Gauge - Standard
- Polycarbonate Sight Dome
- Bowl can be Filled while Air Line is Under Pressure
- Proportional Oil Delivery Over a Wide Range of Air Flows
- Large Capacity Bowl
- Optional High Capacity Bowl(s) Available
- Precision Needle Valve Assures Repeatable Oil Delivery and Provides Simple Adjustment of Delivery Rate
- Automatic Fill Optional (Requires External Pressurized Oil Supply)
- High Flow: 1-1/4" - 325 SCFM§
  1-1/2" - 400 SCFM§



Port Size	NPT No Drain	BSPP No Drain
Zinc Bowl / Sight Gauge		
1-1/4"	**L606-10W**	L606G10W
1-1/2"	**L606-12W**	L606G12W
Aluminum Bowl 32 oz. without Sight Gauge		
1-1/4"	**L606-10E**	L606G10E
1-1/2"	**L606-12E**	L606G12E
Aluminum Bowl 64 oz. with Sight Gauge		
1-1/4"	**L606-10G**	L606G10G
1-1/2"	**L606-12G**	L606G12G

Bold Items are Most Popular.
For other models refer to ordering information below.

§ SCFM = Standard cubic feet per minute at 100 PSIG inlet, and 5 PSIG pressure drop.

L606 Lubricator Dimensions					
A	**B**	**C**	**D**	**E**	**F**
L606-10W, L606-12W					
4.97 (126)	7.63 (194)	2.84 (72.2)	4.81 (122)	10.47 (266)	2.48 (63.1)
L606-10E, L606-12E					
4.97 (126)	11.13 (283)	2.84 (72.2)	4.81 (122)	13.97 (255)	2.48 (63.1)
L606-10G, L606-12G					
5.00 (127)	7.99 (203)	2.84 (72.2)	4.81 (122)	12.80 (325)	2.50 (64)

inches
(mm)

Ordering Information

L	606	—	10	W		/**

Port Threads
— **NPT**
G BSPP

Port Size
10 1-1/4 Inch
12 1-1/2 Inch

Bowl	Capacity	Description	Size
E	32 oz.	Large Capacity without Sight Gauge with Drain	1-1/4" & 1-1/2"
G	64 oz.	Large Capacity with Sight Gauge	1-1/4" & 1-1/2"
W	**16 oz.**	**Metal with Sight Gauge & Drain**	**1-1/4" & 1-1/2"**

Options	
Blank	**None**
H	Button Head Fill Fitting
X9*	Manual Twist Drain (Increases Product Length by 9/16 Inch)

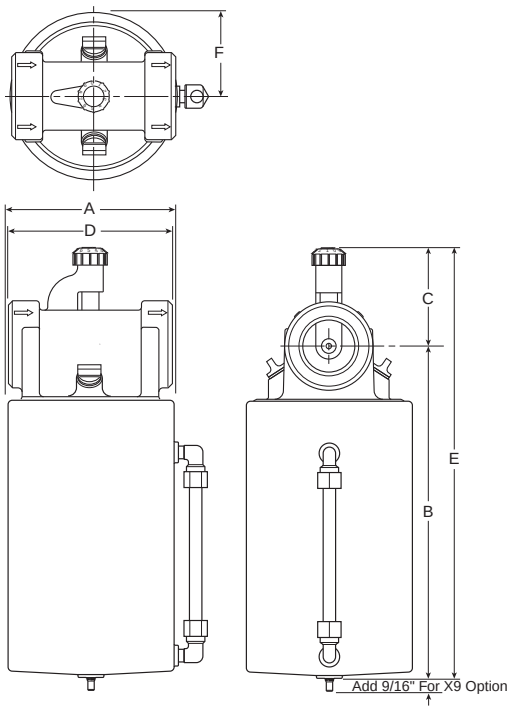
* Not Available with "W" Bowl.

Engineering Change Designator
Will be entered at factory.

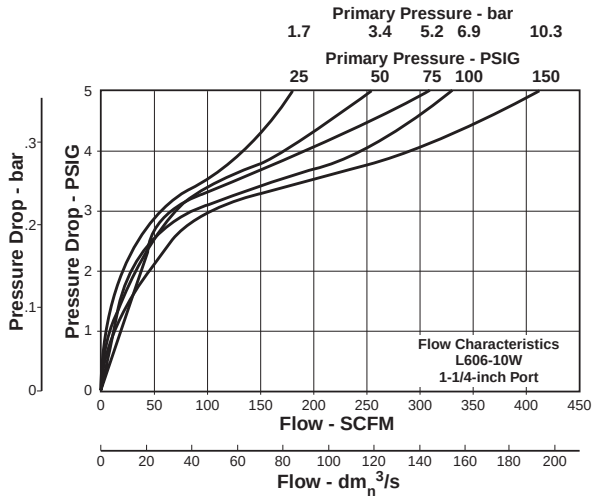
BOLD ITEMS ARE MOST POPULAR.

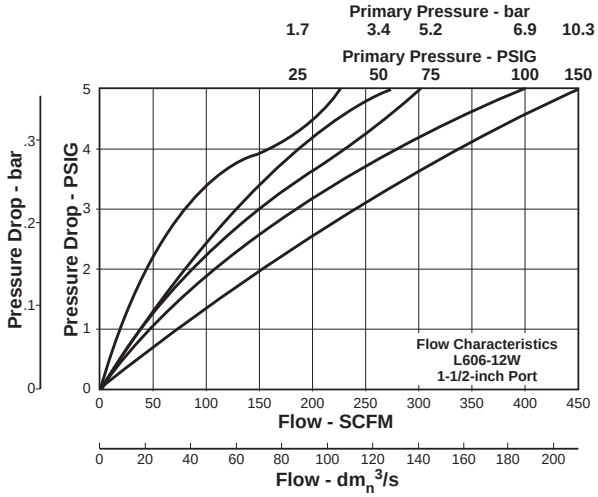
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Technical Information



L606-12G





L606 Lubricator Kits & Accessories

Adjusting Knob 606Y72

Bowl Kits –
- Aluminum (E) BK603B
- Aluminum with Sight Gauge (G) BK606X30B
- Zinc with Sight Gauge (W) BK609WB

Button Head Fill Fitting (M14 male thread) L606C14

Dip Tube Kit DTK606

Drip Spout Kit RK606SY

Oil – 1 Gal. F442002
- 12 Quart Case F442003
- 4 Gallon Case F442005

Repair Kits –
- Needle Valve Assembly (All) RK606Y
- Sight Gauge Bowl Repair Kit (W) RKB605WB
- Sight Gauge Bowl Repair Kit (G) RKB606X30B

Specifications

Bowl Capacity –
- Aluminum (E) ..... 32 Ounces
- Aluminum with Polycarbonate Sight Gauge (G) ..... 64 Ounces
- Zinc with Nylon Sight Gauge (W) ..... 16 Ounces

Port Threads ..... 1-1/4, 1-1/2 Inch

Pressure & Temperature Ratings –

Aluminum Bowl (E) ..... 0 to 300 PSIG (0 to 20.4 bar)
40°F to 150°F (4.4°C to 65.6°C)

Aluminum Bowl with
Polycarbonate Sight Gauge (G) ..... 0 to 150 PSIG (0 to 10.2 bar)
40°F to 125°F (4.4°C to 52°C)

Zinc Bowl with
Nylon Sight Gauge (W) ..... 0 to 250 PSIG (0 to 17.2 bar)
40°F to 150°F (4.4°C to 65.6°C)

Weight –

Aluminum Bowl (E) ..... 8.3 lb. (3.76 kg) / Unit
33.2 lb. (15.06 kg) / 4-Unit Master Pack

Aluminum Bowl with
Polycarbonate Sight Gauge (G) ..... 10 lb. (4.54 kg) / Unit
40 lb. (18.14 kg) / 4-Unit Master Pack Zinc Bowl with

Nylon Sight Gauge (W) ..... 7.5 lb. (3.40 kg) / Unit
28.2 lb. (12.79 kg) / 4-Unit Master Pack

Materials of Construction

Body ..... Zinc

Bowls –
- (E) ..... Aluminum
- (G) ..... Aluminum with Polycarbonate Sight Gauge
- (W) ..... Zinc with Nylon Sight Gauge

Seals ..... Buna N

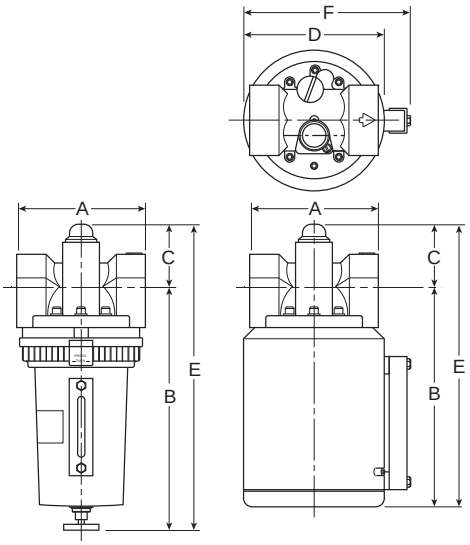
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Richland, Michigan
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09L Mist Lubricators – Hi-Flow



Features

- Metal bowl with sight gauge and manual drain – standard.
- Transparent sight dome for 360° visibility.
- Bowl can be filled while air line is under pressure.
- Proportional oil delivery over a wide range of air flows.
- High Flow: 1000 – SCFM §



Port Size	NPT
Metal Bowl / Sight Gauge – 1 Quart	
2"	**09L84B***
Metal Bowl / Sight Gauge – 3 Quart	
2"	**09L8PB***

Standard part numbers shown bold. For other models refer to ordering information below.

§ SCFM = Standard Cubic Feet Per Minute at 900 PSIG Inlet, and 5 PSIG Pressure Drop.

09L Lubricator Dimensions					
1 Qt.	**A**	**B**	**C**	**D**	**E**
	5.50 (140)	10.40 (264)	2.64 (67)	—	—
3 Qt.	**A**	**B**	**C**	**D**	**E**
	5.50 (140)	9.44 (240)	2.64 (67)	6.00 (152)	7.12 (181)

Inches (mm)

Ordering Information

09L	8	4	B	*	—

Port Size
8 2 Inch

Bowl Options
Metal Bowl
4 1 Quart Sight Gauge / Manual Drain
P 3 Quart Sight Gauge / Manual Drain

Options
B Without Tamperproof Cap

Engineering Level
* Will be Entered at Factory

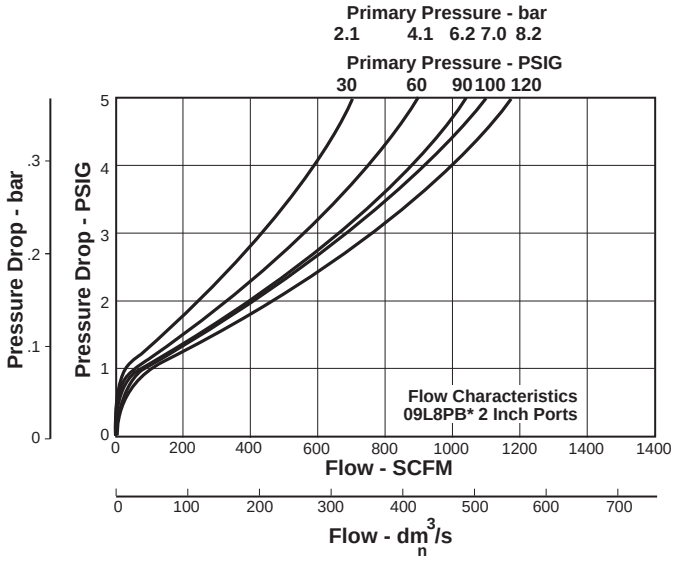
Port Type
Blank NPT

BOLD ITEMS ARE MOST POPULAR.

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A

Technical Information



09L Lubricator Kits & Accessories

Fill Cap Kit PS610P

Lubricator Service Kit PS607P

Metal Bowl – Sight Gauge / Twist Drain PS612P*

Oil – 1 Gal. F442002
12 Quart Case F442003
4 Gallon Case F442005

Sight Dome Kit PS613P

* 1 Quart Bowl

Specifications

Bowl Capacity ..... 1 Qt. (Standard)
3 Qt. (Optional)

Bowl ..... Metal with Sight Gauge

Drain ..... Manual Twist Drain

Port Threads ..... 2 Inch

Pressure & Temperature Rating ..... 0 to 150 PSIG (0 to 10.3 bar)
32°F to 150°F (0°C to 66°C)

Suggested Lubricant ..... F442 Oil

Petroleum based oil of 100 to 200 SSU viscosity at 100°F and an aniline point greater than 200°F

(DO NOT USE OILS WITH ADDITIVES, COMPOUNDED OILS CONTAINING SOLVENTS, GRAPHITE, DETERGENTS, OR SYNTHETIC OILS.)

Weight – 1 Qt. ..... 10.2 lb. (4.6 kg)
3 Qt. ..... 13.7 lb. (6.2 kg)

Materials of Construction

Body ..... Zinc Alloy, Die Cast

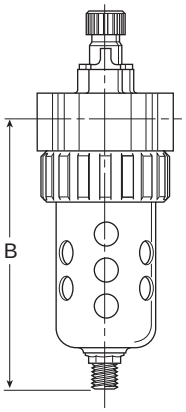
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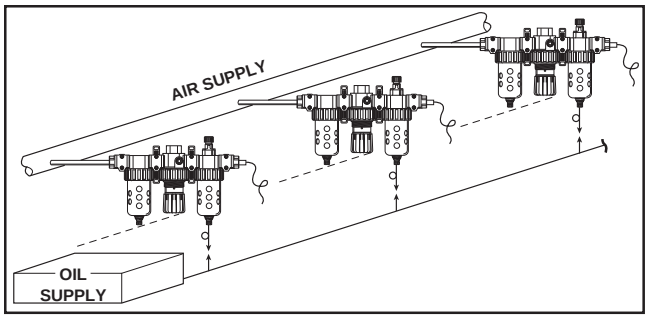
Remote Auto-Fill Device



Features

- Wide operating range (oil supply to inlet may be 30 to 270 PSIG; air operating pressure depends on bowl used).
- Rugged polyurethane float design.
- Complete field conversion kit.
- Adaptable on polycarbonate and metal bowls already in service.
- Oil supply strainer standard.
- Fits 06L / 16L and 07L / 17L Series.



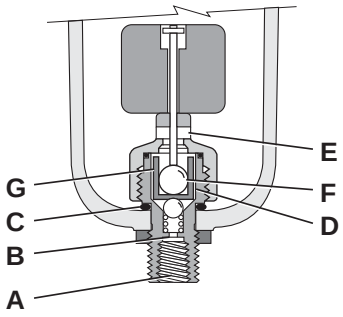


Dimensions

Model	Kit Number	B
06L-16L	**PS505CP**	5.36 (136)
07L-17L	**PS505CP**	6.71 (170)

Inches (mm)

Operation



Oil enters the unit at the pipe thread fitting **(A)** with a supply pressure that is a minimum of 20 PSIG above the lubricator air pressure. With the float lowered, oil flows through metering orifice **(B)** and lifts the check ball **(C)**. Oil continues to flow past the shuttle chamber annulus **(D)** and out the cross drilled hole **(E)**. As the oil level rises, it cause the float to rise to its maximum level in the bowl. During this period the shut-off ball **(F)** remains in chamber **(G)**, out of the flow stream. Near the end of the filling period, shut-off ball **(F)** will enter the flow stream and snap shut against the seat in chamber **(G)**.

The stem assembly will thus block any additional oil passage as long as the oil supply pressure is maintained at **(A)**. When the supply pressure at **(A)** is released, ball **(C)** is held up against the shuttle **(D)** by a spring causing a slight delay in reverse flow shut-off. This permits the higher still present supply pressure in chamber **(G)** to dissipate and bowl pressure to take over. The shuttle then moves down forcing ball **(C)** to close orifice **(B)**. The orifice will remain closed as long as there is air pressure in the bowl.

This delay of reverse flow in chamber **(G)** is necessary to allow shut-off ball **(F)** to fall when the oil level decreases and permit oil to enter the bowl for the next refill. Thus, for the unit to operate properly, it is necessary that the oil supply pressure go to zero after each fill.

Specifications

Bowl Capacity ..... 4.9 Ounces
Minimum Flow for Lubrication ..... 1 SCFM At 100 PSIG
Port Threads ..... 3/8, 1/2, 3/4 Inch
Pressure & Temperature Rating –
Polycarbonate Bowl – 0 to 150 PSIG (0 to 10.3 bar)
32°F to 125°F (0°C to 52°C)
Metal Bowl / Sight Gauge – 0 to 250 PSIG (0 to 17.2 bar)
32°F to 175°F (0°C to 80°C)

Oil inlet pressure must be at least 20 PSIG above system air pressure and may be up to 300 PSIG.

Suggested Lubricant ..... F442 Oil
Petroleum based oil of 100 to 200 SSU viscosity at 100°F and an aniline point greater than 200°F
(DO NOT USE OILS WITH ADDITIVES, COMPOUNDED OILS CONTAINING SOLVENTS, GRAPHITE, DETERGENTS, OR SYNTHETIC OILS.)

Flexible tubing is recommended for oil supply line connection to remote fill inlet. Rigid piping should be avoided to prevent possible damage due to stresses on the lubricator bowl assembly.
Oil supply line should be pressurized for 2 to 15 minutes one or more times per day. Pressurization frequently should be based on maintaining oil in lubricator at its highest level.

Weight ..... 1.9 lb. (0.9 kg)

Materials of Construction

Body, Cap & Stem ..... Aluminum
Float ..... Polyurethane
Mounting Nut ..... Delrin
Seals ..... Nitrile
Spring ..... Stainless

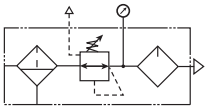
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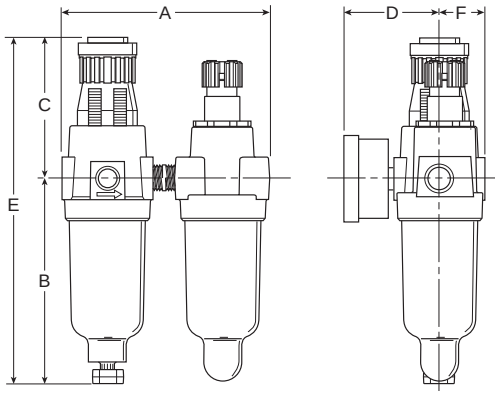
Close Nippled Combinations – 14 Miniature Series

- See individual component pages for details.

Two-Unit Combo







Series	Port	Model Numbers
14G	1/8"	**14G01B13F0G***
	1/4"	**14G11B13F0G***

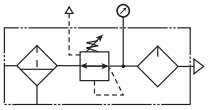
For other models, refer to ordering information on next page.

A	B	C	D	E	F
3.75 (95)	3.79 (96)	2.42 (61)	2.04 (52)	6.21 (158)	0.79 (20)

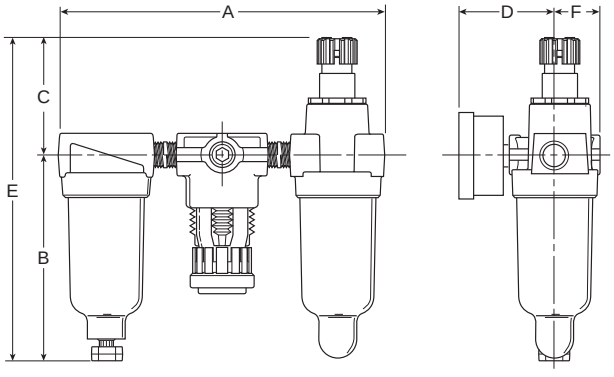
Inches (mm)
Note: All dimensions nominal.

- Regulator can be mounted with knob in up or down position.

Three-Unit Combo







Series	Port	Model Numbers
14A	1/8"	**14A01B13F0G***
	1/4"	**14A11B13F0G***

For other models, refer to ordering information on next page.

A	B	C	D	E	F
5.77 (147)	3.82 (97)	2.16 (55)	2.04 (52)	5.98 (152)	0.79 (20)

Inches (mm)
Note: All dimensions nominal.

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Close Nippled Combinations – 14 Miniature Series

Ordering Information

14A	1	1	B	13	F	0	G	*

Series
14A 3-Unit
14G 2-Unit

Port Size
0 1/8 Inch
1 1/4 Inch

Filter Bowl Options
Poly Bowl
1 Twist Drain
5 Automatic Pulse Drain
Metal Bowl
3 Twist Drain
7 Automatic Pulse Drain

Regulator Pressure
Without Gauge
10 30 PSIG
11 60 PSIG
12 15 PSIG
13 125 PSIG
With Gauge
15 30 PSIG
16 60 PSIG
17 15 PSIG
18 125 PSIG

Filter Element
A 40 Micron
B 5 Micron

Relief
F Relieving
G Non-Relieving

Lubricator Bowl Options
Poly Bowl
0 No Drain
1 Twist Drain
Metal Bowl
3 Twist Drain

Lubricator Body Options
G No Fill Plug

Engineering Level
* Will be Entered at Factory

NOTE: BOLD OPTIONS ARE STANDARD.

CAUTION:

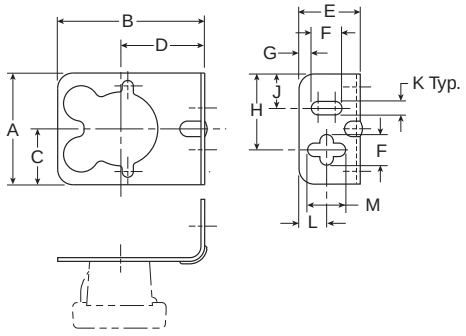
REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

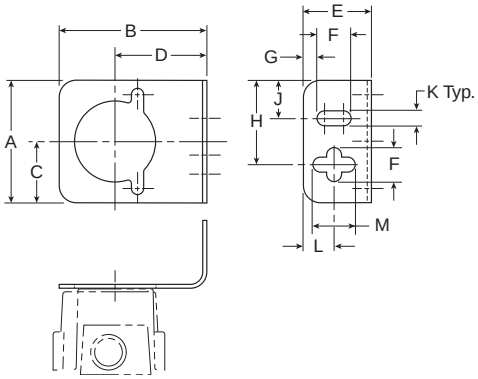
⚠ WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

For polycarbonate bowl and sight dome, see Caution on page A2.



PS417BP
(Includes Panel Mount Nut)



PS419

Dimensions

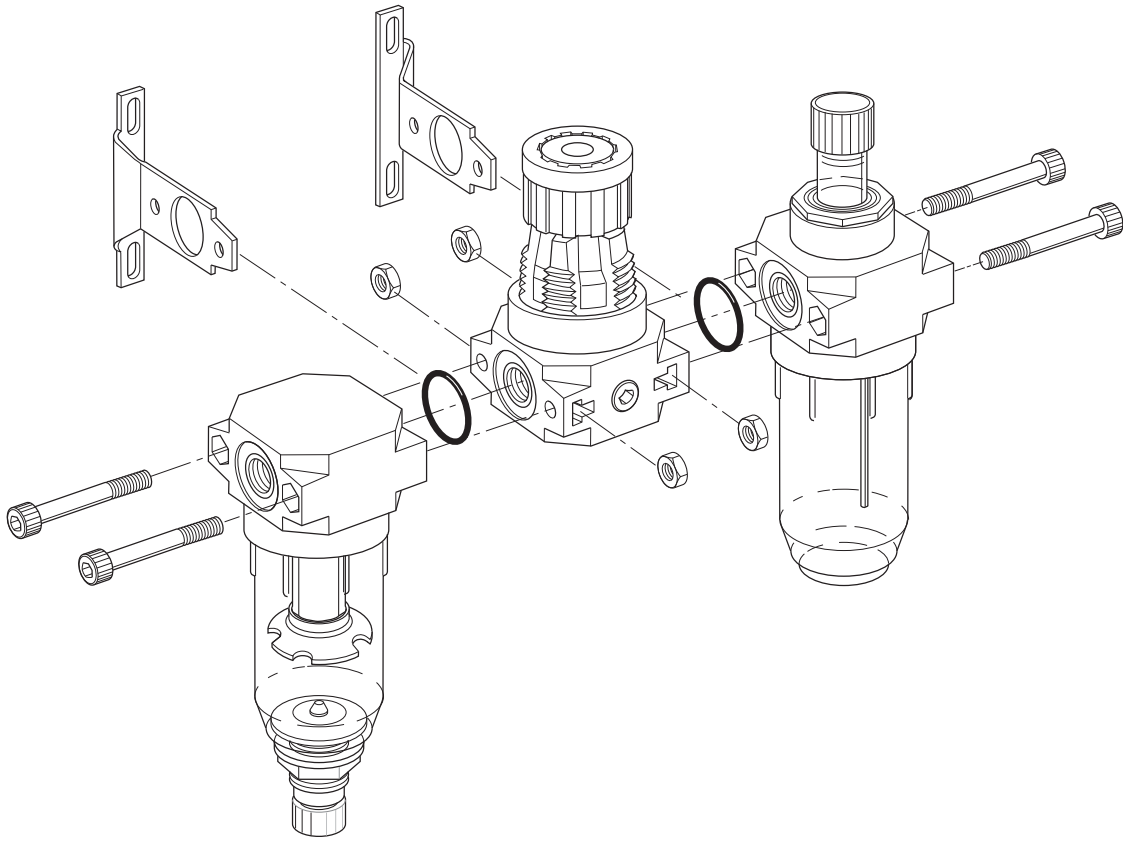
A	B	C	D	E	F	G	H	J	K	L	M	Kit
1.80 (46)	2.37 (60)	0.90 (23)	1.35 (34)	1.00 (25)	0.50 (13)	0.20 (5)	1.24 (31)	0.56 (14)	0.22 (6)	0.45 (11)	0.62 (16)	**PS417BP** (10F, 14F, P3A, 14R, 14E)
1.80 (46)	2.17 (55)	0.90 (23)	1.35 (34)	1.00 (25)	0.50 (13)	0.20 (5)	1.24 (31)	0.56 (14)	0.22 (6)	0.45 (11)	0.62 (16)	**PS419** (04L)

Inches (mm)

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Modular Combinations – P3A Miniature Series

- Attractive.
- Versatile.
- Semi-modular design.
- 1/8" and 1/4" pipe sizes available.
- 5 micron filter as standard.
- Light-weight corrosion resistant plastic body.
- Durable piston or diaphragm design regulator.
- Fingertip lubricator adjustment.
- Can be assembled using either standard pipe nipples or semi-modular assembly hardware.



To Assemble and/or Wall Mount a . . .				Use for Standard Mounting	Or Use for Wall Mounting
Filter	**Regulator**	**Filter / Regulator**	**Lubricator**	**(Qty) Std. Kit**	**(Qty) Kit & Wall Mount**
X					(1) P3A-KA00CFN†
	X				(1) PS417BP†
		X			(1) P3A-KA00MRN†
			X		(1) P3A-KA00CFN†
X	X			(1) P3A-KA00CDN*	(1) P3A-KA00CFN**
X			X	(1) P3A-KA00CEN*	(1) P3A-KA00CGN**
	X		X	(1) P3A-KA00CDN*	(1) P3A-KA00CFN**
		X	X	(1) P3A-KA00CDN*	(1) P3A-KA00CFN**
X	X		X	(2) P3A-KA00CDN*	(2) P3A-KA00CFN**

* Includes hardware to assemble semi-modular units to one another.

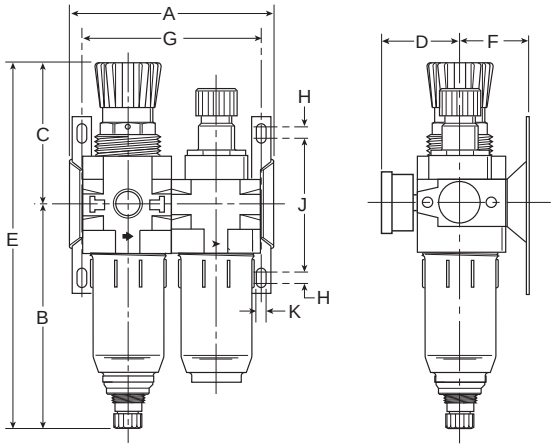
** Includes hardware to assemble semi-modular units to one another and one wall bracket.

† Includes wall bracket and assembly hardware for single unit.

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Modular Combinations – P3A Miniature Series

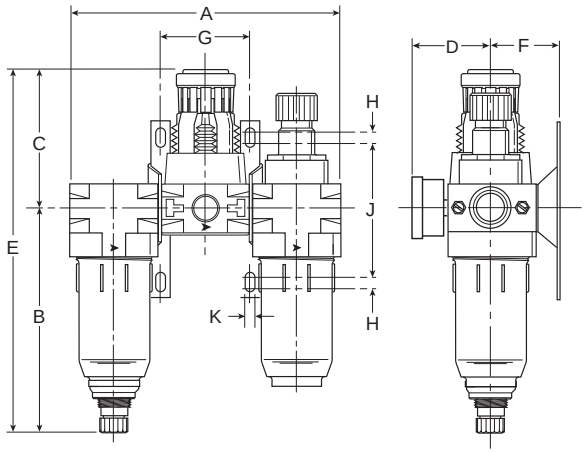
Two-Unit Combo



P3A 2-Unit Combo Dimensions					
A	**B**	**B***	**C**	**D**	**E**
3.78 (96)	3.98 (101)	3.72 (95)	2.52 (64)	2.06 (52)	6.50 (165)
F	**G**	**H**	**J**	**K**	
1.22 (31)	1.57 (40)	0.20 (5)	1.97 (50)	0.20 (5)	

Inches (mm)
* With Auto Drain

Three-Unit Combo



P3A 3-Unit Combo Dimensions					
A	**B**	**B***	**C**	**D**	**E**
4.84 (1236)	3.98 (101)	3.72 (95)	2.46 (63)	2.06 (52)	6.44 (164)
F	**G**	**H**	**J**	**K**	
1.22 (31)	1.63 (42)	0.20 (5)	1.97 (50)	0.20 (5)	

Inches (mm)
* With Auto Drain

CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

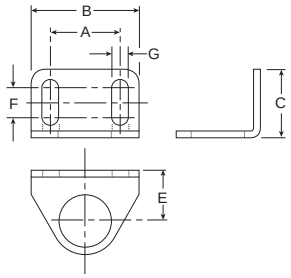
For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

⚠ WARNING

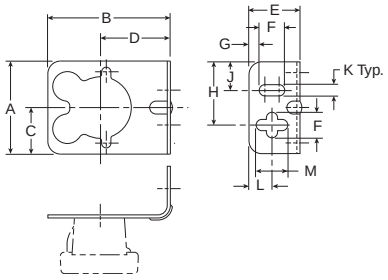
Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

For polycarbonate bowl and sight dome, see Caution on page A2.

Wall Mounting Bracket



P3A-KA00MRN



PS417BP
(Includes Panel Mount Nut)

Dimensions

A	B	C	D	E	F	G	H	J	K	L	M	Kit
1.57 (40)	2.05 (52)	0.98 (25)	1.81 (46)	1.23 (31)	0.47 (12)	0.21 (5)	—	—	—	—	—	**P3A-KA00MRN**
1.80 (46)	2.37 (60)	0.90 (23)	1.35 (34)	1.00 (25)	0.50 (13)	0.20 (5)	1.24 (31)	0.56 (14)	0.22 (6)	0.45 (11)	0.62 (16)	**PS417BP** (10F, 14F, P3A, 14R, 14E)

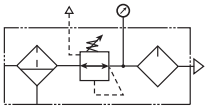
Inches (mm)

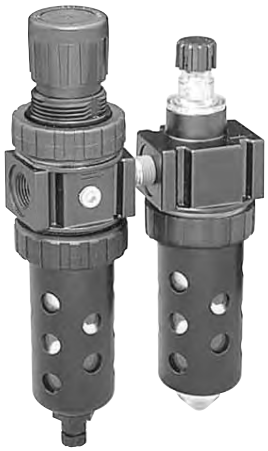
Parker Hannifin Corporation
Pneumatic Division
Richland, Michigan
www.parker.com/pneumatics

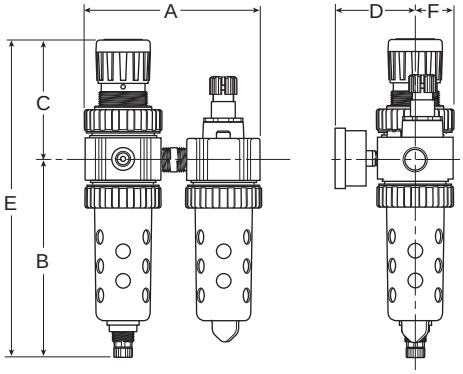
Close Nippled Combinations – 05 Economy Series

- Regulator can be mounted with knob in up or down position.
- See individual component pages for details.

Two-Unit Combo







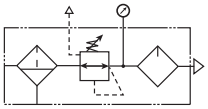
Series	Port	Model Numbers
15G	1/4"	**15G12A13A2N***
	3/8"	**15G22A13A2N***

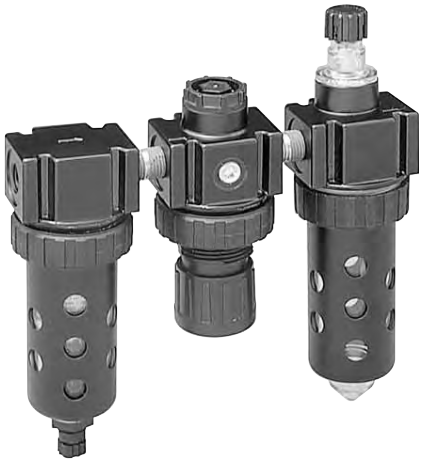
For other models, refer to ordering information on next page.

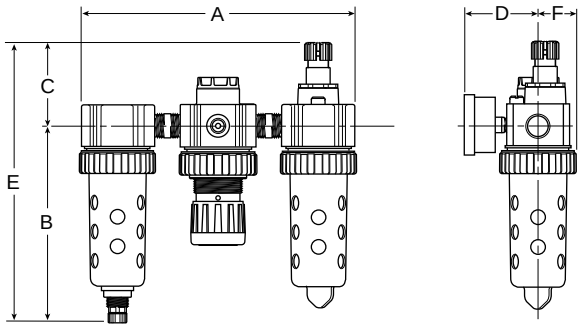
A	B	C	D	E	F
4.49 (114)	5.35 (136)	3.16 (80)	2.05 (52)	8.50 (216)	1.03 (26)

Inches (mm)
Note: All dimensions nominal.

Three-Unit Combo







Series	Port	Model Numbers
15A	1/4"	**15A12A13A2N***
	3/8"	**15A22A13A2N***

For other models, refer to ordering information on next page.

A	B	C	D	E	F
7.00 (178)	5.35 (136)	2.24 (57)	2.05 (52)	7.59 (193)	1.03 (26)

Inches (mm)
Note: All dimensions nominal.

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Close Nippled Combinations – 05 Economy Series

Ordering Information

15A	1	2	A	13	A	2	N	*

Series
- **15A 3-Unit**
- **15G 2-Unit**

Port Size
- **1 1/4 Inch**
- **2 3/8 Inch**

Filter Element
- **A 40 Micron**
- B 5 Micron

Filter Bowl Options

Poly Bowl
- 1 Twist Drain
- **2 Metal Bowl Guard / Twist Drain**
- N Automatic Pulse Drain
- **P Metal Bowl Guard / Automatic Pulse Drain**

Metal Bowl
- 3 Twist Drain
- **4 Sight Gauge / Twist Drain**
- R Automatic Pulse Drain
- **T Sight Gauge / Automatic Pulse Drain**

Regulator Pressure

Without Gauge
- 10 30 PSIG
- **11 60 PSIG**
- **13 125 PSIG**
- 14§ 200 PSIG

With Gauge *
- 17 30 PSIG
- **16 60 PSIG**
- **18 125 PSIG**
- 19§ 200 PSIG

* Includes 1-1/2" Dial Face Gauge

§ Metal Bowls Only

Relief
- **A Relieving**
- H Low Temp. Relieving
- J Low Temp Non-Relieving
- L Non-Relieving

Lubricator Bowl Options

Poly Bowl
- 1 No Drain
- **2 Metal Bowl Guard / No Drain**
- 5 Pressure Fill
- 6 Metal Bowl Guard / Pressure Fill

Metal Bowl / Sight Gauge
- **4 Twist Drain**
- 8 Pressure Fill

Lubricator Body Options
- B With Fill Plug
- F With Body Pressure Fill
- **N No Fill Plug**

Engineering Level
- * Will be Entered at Factory

BOLD ITEMS ARE MOST POPULAR.

CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

⚠ WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

For polycarbonate bowl and sight dome, see Caution on page A2.

Kits & Accessories (See individual component sections for other kits and accessories.)

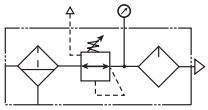
Mounting Bracket Kit PS963P
(Includes Panel Mount Nut)

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Richland, Michigan
www.parker.com/pneumatics

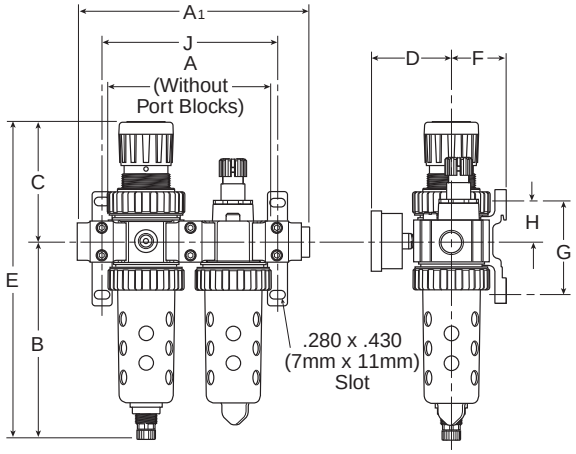
Modular Combinations – 05 Economy Series

- Regulator can be mounted with knob in up or down position.
- See individual component pages for details.
- Gauges, Port Blocks, Manifold Blocks and Ball Valve must be ordered separately.

Two-Unit Combo







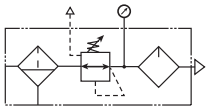
Series	Port	Model Numbers
15H	1/4"	**15H12A13A2N***
	3/8"	**15H22A13A2N***

For other models, refer to ordering information on next page.

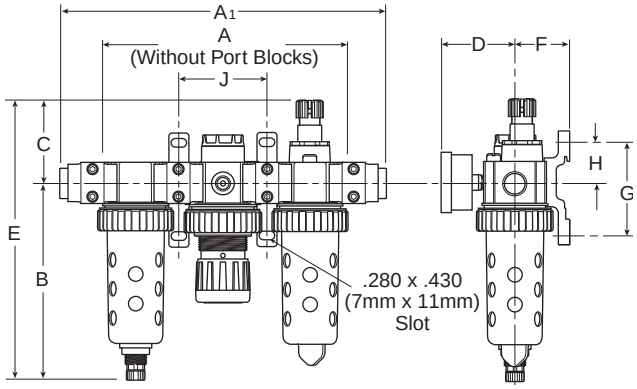
A	A1	B	C	D	E	F
4.33 (110)	6.38 (162)	5.35 (136)	3.15 (80)	2.05 (52)	8.50 (216)	1.45 (37)
G	**H**	**J**				
2.60 (66)	1.14 (29)	4.72 (120)				

Inches (mm)
- All dimensions nominal.
- **Mounting brackets not included.**

Three-Unit Combo







Series	Port	Model Numbers
15B	1/4"	**15B12A13A2N***
	3/8"	**15B22A13A2N***

For other models, refer to ordering information on next page.

A	A1	B	C	D	E	F
6.70 (170)	8.72 (222)	5.35 (136)	2.24 (57)	2.05 (52)	7.59 (193)	1.45 (37)
G	**H**	**J**				
2.60 (66)	1.14 (29)	2.35 (600)				

Inches (mm)
- All dimensions nominal.
- **Mounting brackets not included.**

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Modular Combinations – 05 Economy Series

Ordering Information

15B	1	2	A	13	A	2	N	*	—

Series
- **15B 3-Unit**
- **15H 2-Unit**

Port Size
- **1 1/4 Inch**
- **2 3/8 Inch**

Filter Element
- **A 40 Micron**
- B 5 Micron

Relief
- **A Relieving**
- H Low Temp. Relieving
- J Low Temp Non-Relieving
- L Non-Relieving

Engineering Level
- * Will be Entered at Factory

Modular Options
- **Blank No Port Blocks**
- A With Mounting Bracket & Port Block
- B With Mounting Bracket, Lockout & Port Block
- C With Mounting Bracket & Lockout
- G With Port Blocks
- J With Lockout (No Port Blocks)
- K With Lockout and Port Blocks
- W With Mounting Bracket

Filter Bowl Options

Poly Bowl
- 1 Twist Drain
- **2 Metal Bowl Guard / Twist Drain**
- N Automatic Pulse Drain
- **P Metal Bowl Guard / Automatic Pulse Drain**

Metal Bowl
- 3 Twist Drain
- **4 Sight Gauge / Twist Drain**
- R Automatic Pulse Drain
- **T Sight Gauge / Automatic Pulse Drain**

Regulator Pressure

Without Gauge
- 10 30 PSIG
- **11 60 PSIG**
- **13 125 PSIG**
- 14§ 200 PSIG

With Gauge *
- 17 30 PSIG
- **16 60 PSIG**
- **18 125 PSIG**
- 19§ 200 PSIG

* Includes 1-1/2" Dial Face Gauge

§ Metal Bowls Only

Lubricator Body Options
- B With Fill Plug
- F With Body Pressure Fill
- **N No Fill Plug**

Lubricator Bowl Options

Poly Bowl
- 1 No Drain
- **2 Metal Bowl Guard / No Drain**
- 5 Pressure Fill
- 6 Metal Bowl Guard / Pressure Fill

Metal Bowl / Sight Gauge
- **4 Twist Drain**
- 8 Pressure Fill

BOLD ITEMS ARE MOST POPULAR.

CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

⚠ WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

For polycarbonate bowl and sight dome, see Caution on page A2.

Kits & Accessories (See individual component sections for other kits and accessories.)

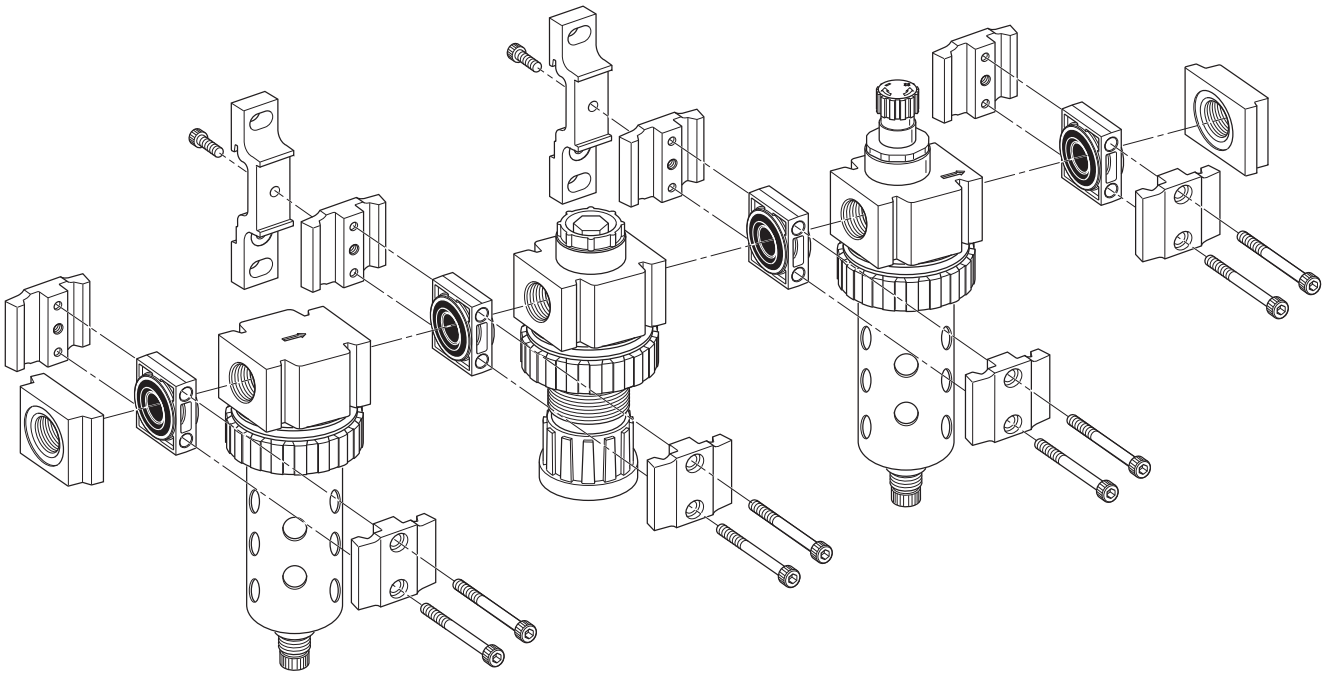
Body Connector Kit PS954P
Lockout Valve PS95601P
Manifold Block PS95701P
Pressure Switches –
DIN Connectors P01909
Flying Leads P01908
Wall Mounting Kit PS955P

Port Block Kits:	**1/8"**	**1/4"**	**3/8"**
NPT	**PS95000P**	**PS95001P**	**PS95002P**
BSPP	**PS95010P**	**PS95011P***	**PS95012P***
BSPT	**PS95020P**	**PS95021P**	**PS95022P**

* 1/4 & 3/8 inch meet ISO 1179-1 Standard.

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Modular Accessories – 05 Economy Series



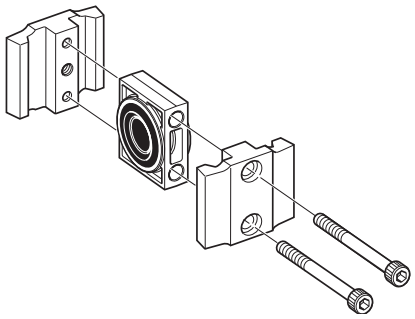
Port Block Connector Kits

	1/8"	1/4"	3/8"
NPT	**PS95000P**	**PS95001P**	**PS95002P**
BSPP	**PS95010P**	**PS95011P***	**PS95012P***
BSPT	**PS95020P**	**PS95021P**	**PS95022P**

* 1/4 & 3/8 inch meet ISO 1179-1 Standard.

Body Connectors

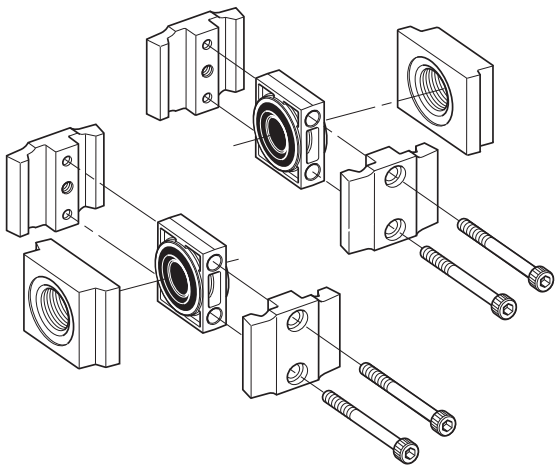
PS954P



Body Connectors allow you to easily assemble and disassemble Modular Combinations.

Body Connectors are required whenever you assemble two or more pieces together.

Each Kit includes one set.



Port Block Connectors allow you to make threaded port connections to Modular units and are available in various port sizes to match your system requirements.

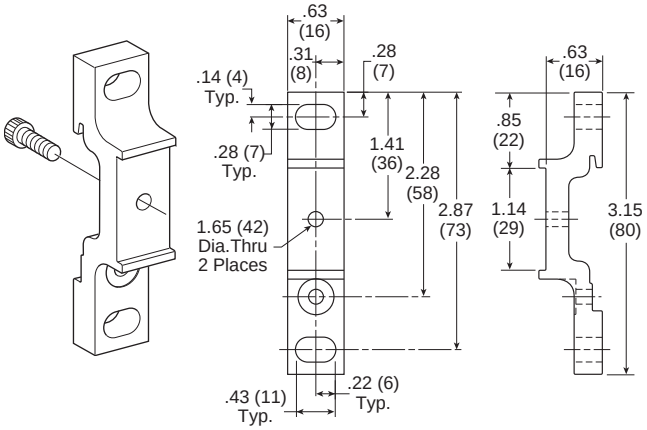
Each Kit includes all the necessary pieces to make two port connections.

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Modular Accessories – 05 Economy Series

Wall Mounting Kits

PS955P



Wall Mounting Kits are available for mounting your Modular Assemblies and can be assembled and used with any standard body connector set.

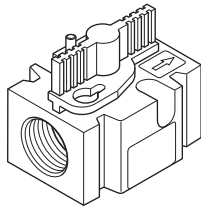
Since Modular Combinations are always identical in size, you can predrill for wall mounting on your equipment.

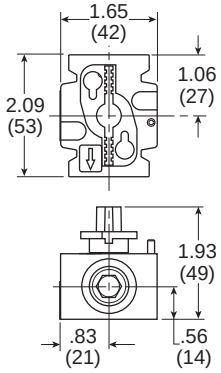
Kit includes 1 assembly.

Lockout Valve

PS95601P

1/4" Port





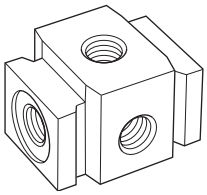
Lockout Valves provide positive shut-off and exhaust capability to isolate Modular units so they can be easily removed from the line and can be locked in a closed position. Center position can be used as a slow start for 06 and 07 series. Accepts #3 padlock.

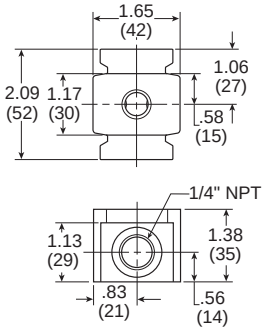
NOTE: Body Connectors are not supplied with Lockout Valves.

Modular Manifold Block

PS95701P

1/4" Port





A Modular Manifold Block can be used between any two Modular units to give additional outlet ports. The 1/4" Manifold Block provides three additional outlets. Any standard pipe plug can be used to close off unused ports.

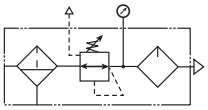
NOTE: Body Connectors are not supplied with Manifold Blocks.

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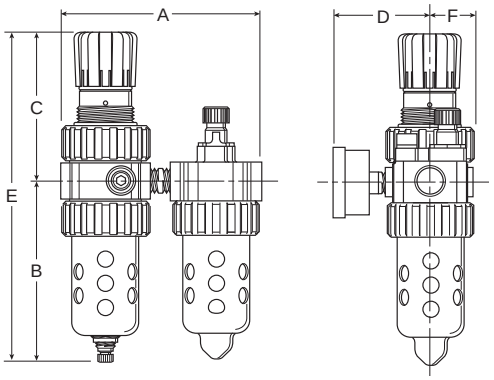
Close Nippled Combinations – 06 Compact & 07 Standard Series

- See individual component pages for details.

Two-Unit Combo







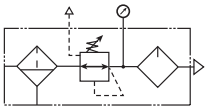
Series	Model Numbers	Port	Model Numbers	Series
06G	**06G12A13A2B***	1/4"	**16G12A13A2B***	16G
	06G22A13A2B*	3/8"	**16G22A13A2B***	
	06G32A13A2B*	1/2"	**16G32A13A2B***	
07G	**07G22A13A2B***	3/8"	**17G22A13A2B***	17G
	07G32A13A2B*	1/2"	**17G32A13A2B***	
	07G42A13A2B*	3/4"	**17G42A13A2B***	

For other models, refer to ordering information on next page.

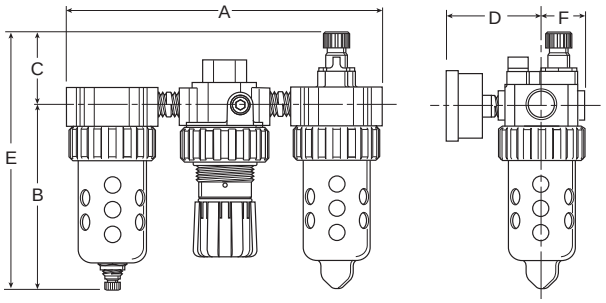
06G, 16G Series					
A	**B**	**C**	**D**	**E**	**F**
6.13 (156)	5.69 (145)	4.69 (119)	3.18 (81)	10.38 (264)	1.37 (35)
07G, 17G Series					
A	**B**	**C**	**D**	**E**	**F**
6.99 (178)	6.97 (177)	4.79 (122)	3.44 (87)	11.76 (299)	1.63 (41)

Inches (mm)
• All dimensions nominal.

Three-Unit Combo







Series	Model Numbers	Port	Model Numbers	Series
06A	**06A12A13A2B***	1/4"	**16A12A13A2B***	16A
	06A22A13A2B*	3/8"	**16A22A13A2B***	
	06A32A13A2B*	1/2"	**16A32A13A2B***	
07A	**07A22A13A2B***	3/8"	**17A22A13A2B***	17A
	07A32A13A2B*	1/2"	**17A32A13A2B***	
	07A42A13A2B*	3/4"	**17A42A13A2B***	

For other models, refer to ordering information on next page.

06A, 16A Series					
A	**B**	**C**	**D**	**E**	**F**
9.45 (240)	5.69 (145)	2.24 (57)	3.18 (81)	7.93 (201)	1.37 (35)
07A, 17A Series					
A	**B**	**C**	**D**	**E**	**F**
10.74 (2738)	6.97 (177)	2.41 (61)	3.44 (87)	9.38 (238)	1.63 (41)

Inches (mm)
• All dimensions nominal.

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Close Nipped Combinations – 06 Compact & 07 Standard Series

Ordering Information

16A	1	2	A	13	A	1	B	*

Series

Micro-Mist
- **16A Compact 3-Unit**
- **17A Standard 3-Unit**
- **16G Compact 2-Unit**
- **17G Standard 2-Unit**

Mist
- **06A Compact 3-Unit**
- **07A Standard 3-Unit**
- **06G Compact 2-Unit**
- **07G Standard 2-Unit**

Port Size
- **1 1/4 Inch***
- **2 3/8 Inch**
- **3 1/2 Inch**
- **4 3/4 Inch****

* Available on 06/16 Series only.
** Available on 07/17 Series only.

Filter Element
- **A 40 Micron**
- B 5 Micron

Relief
- **A Relieving**
- L Non-Relieving

Lubricator Body Options
- **B With Fill Plug**
- F With Body Pressure Fill

Engineering Level
- * Will be Entered at Factory

Filter Bowl Options

Poly Bowl
- 1 Twist Drain
- **2 Metal Bowl Guard / Twist Drain**
- 5 Automatic Float Drain
- **6 Metal Bowl Guard / Automatic Float Drain**

Metal Bowl
- 3 Twist Drain
- **4 Sight Gauge / Twist Drain**
- 7 Automatic Float Drain
- **8 Sight Gauge / Automatic Float Drain**

Regulator Pressure

Without Gauge
- **11 60 PSIG**
- **13 125 PSIG**
- 15* 250 PSIG

With Gauge
- **16 60 PSIG**
- **18 125 PSIG**
- 21* 250 PSIG

* If 250 PSIG spring range is used, use Metal Bowl.

Lubricator Bowl Options

Poly Bowl
- 1 No Drain
- **2 Metal Bowl Guard / No Drain**
- 5 Pressure Fill
- 6 Metal Bowl Guard / Pressure Fill
- A Liquid Level Sensor
- B Metal Bowl Guard / Liquid Level Sensor
- J Auto FIll
- K Metal Bowl Guard / Auto Fill
- R Twist Drain
- N Metal Bowl Guard / Twist Drain

Metal Bowl / Sight Gauge
- **4 Twist Drain**
- 8 Pressure Fill
- D Liquid Level Sensor
- M Auto FIll

BOLD ITEMS ARE MOST POPULAR.

CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

⚠ WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

For polycarbonate bowl and sight dome, see Caution on page A2.

Kits & Accessories (See individual component sections for other kits and accessories.)

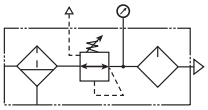
Mounting Bracket Kit (Includes Panel Mount Nut)
06A, 16A , 06G, 16G PS707P
07A, 17A , 07G, 17G PS807P

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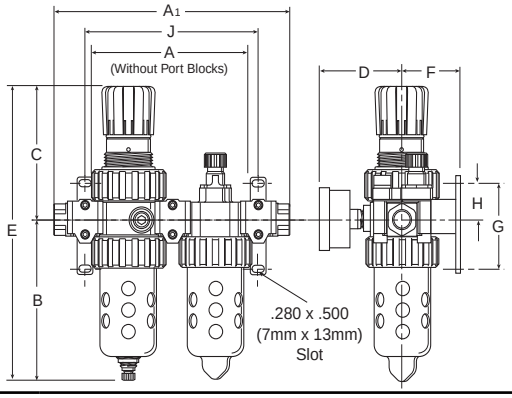
Modular Combinations – 06 Compact & 07 Standard Series

- See individual component pages for details.

Two-Unit Combo







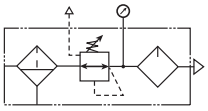
Series	Model Numbers	Port	Model Numbers	Series
06H	06H12A13A2B*	1/4"	16H12A13A2B*	16H
	06H22A13A2B*	3/8"	16H22A13A2B*	
	06H32A13A2B*G	1/2"†	16H32A13A2B*G	
07H	07H22A13A2B*	3/8"	17H22A13A2B*	17H
	07H32A13A2B*	1/2"	17H32A13A2B*	
	07H42A13A2B*	3/4"	17H42A13A2B*	

For other models, refer to ordering information on next page.
† 06 / 16 Available with Port Blocks Only.

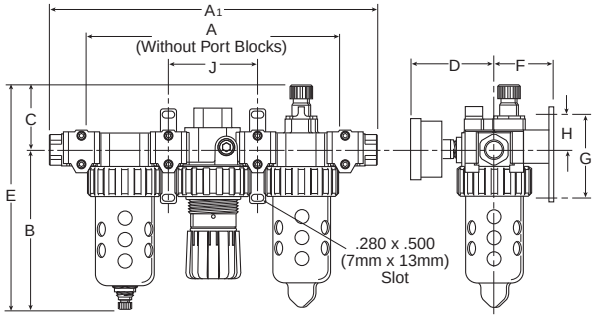
06H, 16H Series					
A	**A1**	**B**	**C**	**D**	**E**
6.10 (155)	9.04 (230)	5.69 (145)	4.69 (119)	3.18 (81)	10.38 (264)
F	**G**	**H**	**J**		
2.00 (51)	3.58 (91)	1.40 (36)	6.65 (169)		
07H, 17H Series					
A	**A1**	**B**	**C**	**D**	**E**
7.00 (178)	10.28 (261)	6.97 (177)	4.79 (122)	3.44 (87)	11.76 (299)
F	**G**	**H**	**J**		
2.09 (53)	3.58 (91)	1.40 (36)	7.51 (191)		

Inches (mm)
• All dimensions nominal.

Three-Unit Combo







Series	Model Numbers	Port	Model Numbers	Series
06B	06B12A13A2B*	1/4"	16B12A13A2B*	16B
	06B22A13A2B*	3/8"	16B22A13A2B*	
	06B32A13A2B*G	1/2"†	16B32A13A2B*G	
07B	07B22A13A2B*	3/8"	17B22A13A2B*	17B
	07B32A13A2B*	1/2"	17B32A13A2B*	
	07B42A13A2B*	3/4"	17B42A13A2B*	

For other models, refer to ordering information on next page.
† 06 / 16 Available with Port Blocks Only.

06B, 16B Series					
A	**A1**	**B**	**C**	**D**	**E**
9.46 (240)	12.39 (315)	5.69 (145)	2.24 (57)	3.18 (81)	7.82 (199)
F	**G**	**H**	**J**		
2.00 (51)	3.58 (91)	1.40 (36)	3.33 (85)		
07B, 17B Series					
A	**A1**	**B**	**C**	**D**	**E**
10.750 (273)	14.03 (356)	6.97 (177)	2.41 (61)	3.44 (87)	9.27 (235)
F	**G**	**H**	**J**		
2.18 (55)	3.58 (91)	1.40 (36)	3.76 (95)		

Inches (mm)
• All dimensions nominal.

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Modular Combinations – 06 Compact & 07 Standard Series

Ordering Information

16B	1	2	A	13	A	2	B	*	—

Series

Micro-Mist
- **16B Compact 3-Unit**
- **17B Standard 3-Unit**
- **16H Compact 2-Unit**
- **17H Standard 2-Unit**

Mist
- **06B Compact 3-Unit**
- **07B Standard 3-Unit**
- **06H Compact 2-Unit**
- **07H Standard 2-Unit**

Port Size
- **1 1/4 Inch***
- **2 3/8 Inch**
- **3 1/2 Inch*****
- **4 3/4 Inch****

* Available on 06/16 Series only.
** Available on 07/17 Series only.
*** 06/16 available with Port Blocks only.

Filter Element
- **A 40 Micron**
- B 5 Micron

Relief
- **A Relieving**
- L Non-Relieving

Engineering Level
- * Will be Entered at Factory

Lubricator Body Options
- **B With Fill Plug**
- F With Body Pressure Fill

Modular Options
- **Blank No Port Blocks**
- A With Mounting Bracket & Port Block
- B With Mounting Bracket, Lockout & Port Block
- C With Mounting Bracket & Lockout
- G With Port Blocks
- J With Lockout (No Port Blocks)
- K With Lockout and Port Blocks
- W With Mounting Bracket

Filter Bowl Options

Poly Bowl
- 1 Twist Drain
- **2 Metal Bowl Guard / Twist Drain**
- 5 Automatic Float Drain
- **6 Metal Bowl Guard / Automatic Float Drain**

Metal Bowl
- 3 Twist Drain
- **4 Sight Gauge / Twist Drain**
- 7 Automatic Float Drain
- **8 Sight Gauge / Automatic Float Drain**

Regulator Pressure

Without Gauge
- **11 60 PSIG**
- **13 125 PSIG**
- 15* 250 PSIG

With Gauge
- **16 60 PSIG**
- **18 125 PSIG**
- 21* 250 PSIG

* If 250 PSIG spring range is used, use Metal Bowl.

Lubricator Bowl Options

Poly Bowl
- 1 No Drain
- **2 Metal Bowl Guard / No Drain**
- 5 Pressure Fill
- 6 Metal Bowl Guard / Pressure Fill
- A Liquid Level Sensor
- B Metal Bowl Guard / Liquid Level Sensor
- J Auto FIll
- K Metal Bowl Guard / Auto Fill
- R Twist Drain
- N Metal Bowl Guard / Twist Drain

Metal Bowl / Sight Gauge
- **4 Twist Drain**
- 8 Pressure Fill
- D Liquid Level Sensor
- M Auto FIll

BOLD ITEMS ARE MOST POPULAR.

CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

⚠ WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

For polycarbonate bowl and sight dome, see Caution on page A2.

Kits & Accessories (See individual component sections for other kits and accessories.)

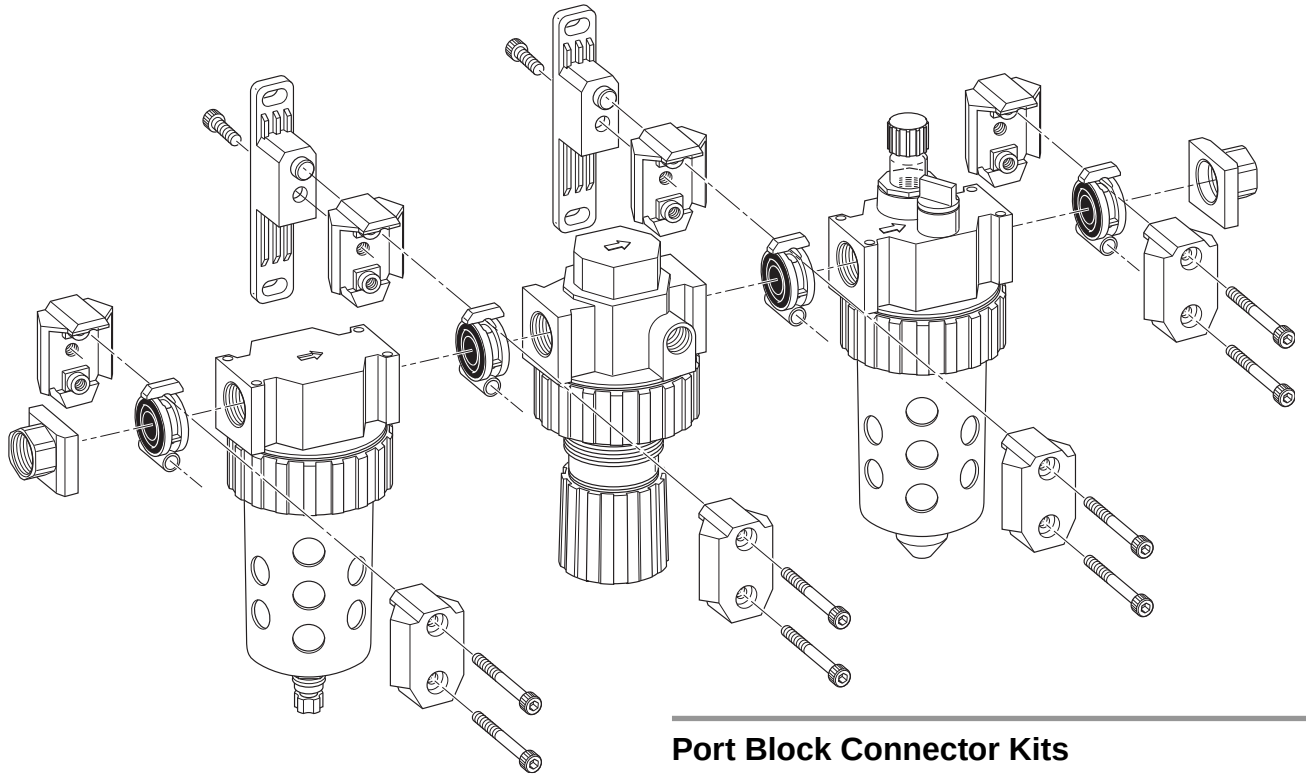
Body Connector Kit PS754P
Lockout Valve PS756P
Manifold Block PS757P
Pressure Switches –
DIN Connectors P01909
Flying Leads P01908
Wall Mounting Kit PS755P

Port Block Kits:	Size	NPT	BSPP	BSPT
06 Series	**1/4"**	PS750P	PS765P†	PS761P
	3/8"	PS751P	PS766P†	PS762P
	1/2"	PS752P*	PS767P*†	PS799P*
07 Series	**1/4"**	PS850P	PS865P	PS861P
	3/8"	PS851P	PS866P	PS862P
	1/2"	PS852P	PS867P‡	PS863P
	3/4"	PS853P	PS860P	PS864P

* Use 1/4 or 3/8 ported bodies.
† 1/4, 3/8 & 1/2 inch meet ISO 1179-1 Standard.
‡ 1/2 inch meets ISO 1179-1 Standard.

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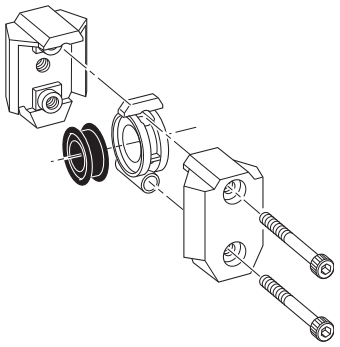
Modular Accessories – 06 Compact & 07 Standard Series



Body Connectors

06 Series **PS754P**

07 Series **PS854P**



Body Connectors allow you to easily assemble and disassemble Modular Combinations.

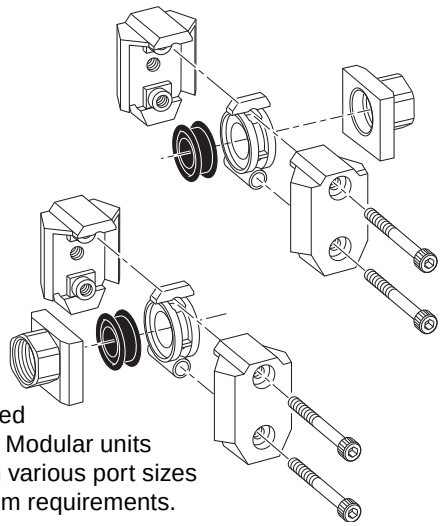
Each Kit includes one set.

Body Connectors are required whenever you assemble two or more pieces together.

Port Block Connector Kits

Series	Size	NPT	BSPP	BSPT
06 Series	1/4"	**PS750P**	**PS765P**†	**PS761P**
	3/8"	**PS751P**	**PS766P**†	**PS762P**
	1/2"	**PS752P***	**PS767P***†	**PS799P***
07 Series	1/4"	**PS850P**	**PS865P**	**PS861P**
	3/8"	**PS851P**	**PS866P**	**PS862P**
	1/2"	**PS852P**	**PS867P**‡	**PS863P**
	3/4"	**PS853P**	**PS860P**	**PS864P**

* Use 1/4 or 3/8 ported bodies.
† 1/4, 3/8 & 1/2 inch meet ISO 1179-1 Standard.
‡ 1/2 inch meets ISO 1179-1 Standard.



Port Block Connectors allow you to make threaded port connections to Modular units and are available in various port sizes to match your system requirements.

Each Kit includes all the necessary pieces to make two port connections.

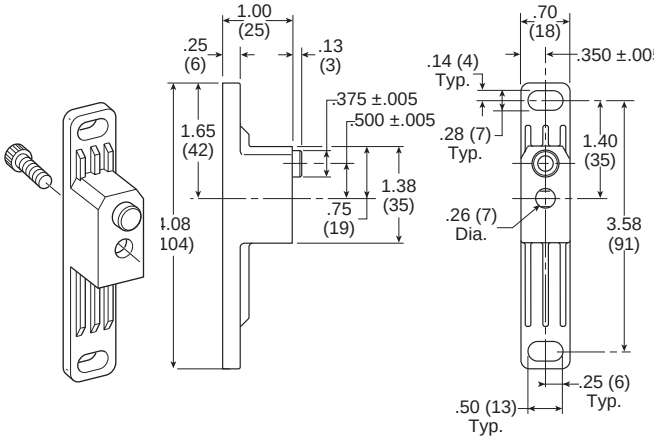
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Modular Accessories – 06 Compact & 07 Standard Series

A

Wall Mounting Kits

06 Series & 07 Series **PS755P**



Wall Mounting Kits are available for mounting your Modular Assemblies and can be assembled and used with any standard body connector set.

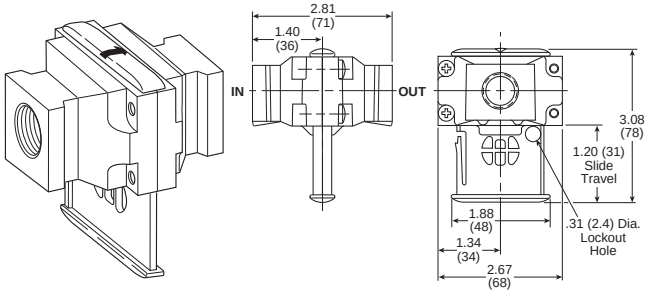
Since Modular Combinations are always identical in size, you can predrill for wall mounting on your equipment.

Kit includes 1 assembly.

Lockout Valves

06 Series ..... **PS756P** ..... **3/8" Port**

07 Series ..... **PS856P** ..... **1/2" Port**



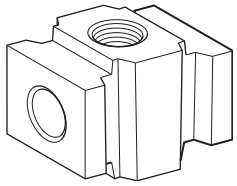
Lockout Valves provide positive shut-off and exhaust capability to isolate Modular units so they can be easily removed from the line and can be locked in a closed position. Center position can be used as a slow start. Accepts #3 padlock.

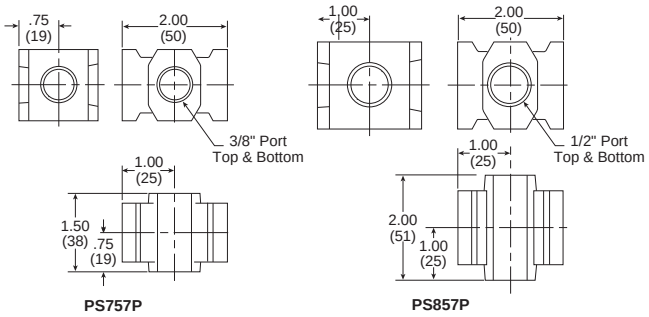
NOTE: Body Connectors are not supplied with Lockout Valves.

Modular Manifold Block

06 Series ..... **PS757P** ..... **3/8" Port**

07 Series ..... **PS857P** ..... **1/2" Port**





A Modular Manifold Block can be used between any two Modular units to give additional outlet ports. The Manifold Block provides 2 additional outlets in 3/8" and 1/2" sizes. Any standard pipe plug can be used to close off unused ports.

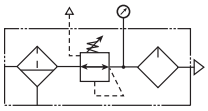
NOTE: Body Connectors are not supplied with Manifold Blocks.

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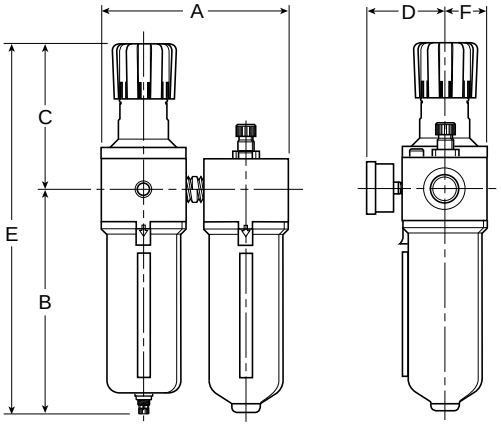
Close Nippled Combinations – P3N Hi-Flow Series

- Regulator can be mounted with knob in up or down position.
- See individual component pages for details.

Two-Unit Combo







- 40 Micron Filter Element
- Manual Twist Drain
- Relieving Regulator
- 125 PSI (8.6 bar)

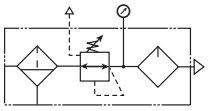
Series	Port	Model Numbers
P3N3A	3/4"	**P3N3A96SGMNNLNA**
	1"	**P3N3A98SGMNNLNA**
	1-1/2"†	**P3N3A9PSGMNNLNA**

Notes: All Combo part numbers are with regulator knob in up position.
† 1" Port Body with 1-1/2" Port Block.
For other models, refer to Ordering Information on next page.

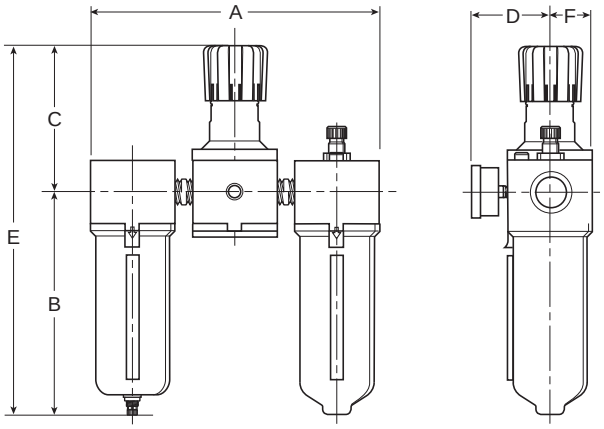
A	B	C	D	E	F
7.76 (197)	9.57 (243)	6.38 (162)	3.56 (90)	15.95 (405)	1.81 (50)

Inches (mm)
• All dimensions nominal.
• **Mounting brackets not included (change last character in model number to "B" if required).**
• **Gauges not included (change 12th character to "G" if required).**

Three-Unit Combo







- 40 Micron Filter Element
- Manual Twist Drain
- Relieving Regulator
- 125 PSI (8.6 bar)

Series	Port	Model Numbers
P3N3B	3/4"	**P3N3B96SGMNNLNA**
	1"	**P3N3B98SGMNNLNA**
	1-1/2"†	**P3N3B9PSGMNNLNA**

Notes: All Combo part numbers are with regulator knob in up position.
† 1" Port Body with 1-1/2" Port Block.
For other models, refer to Ordering Information on next page.

A	B	C	D	E	F
11.89 (302)	9.57 (243)	6.38 (162)	3.56 (90)	15.95 (405)	1.81 (50)

Inches (mm)
• All dimensions nominal.
• **Mounting brackets not included (change last character in model number to "B" if required).**
• **Gauges not included (change 12th character to "G" if required).**

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Close Nippled Combinations – P3N Hi-Flow Series

Ordering Information

P3N	3	A	9	6	S	G	M	N	N	L	N	A
Series												

Type
3 Combinations w/ Pipe Nipples

Combination
Metal Bowl
A Hi-Flow 2-Unit
B Hi-Flow 3-Unit

Port Type
9 NPT Female

Port Size
6 3/4" (w/o Port Blocks)
8 1" (w/o Port Blocks)
P 1-1/2" Port Blocks (w/ 1" Ported Body)

Bowl
S Metal Bowl w/ Sight Gauge

Filter Elements
E 5 Micron
G 40 Micron

Filter Drains
M Twist Drain
A Automatic Float Drain

Relief
N Relieving
M Non-Relieving

Regulator Pressure Range & Gauges
Without Gauge
L 60 PSI (0 to 4 bar)
N 125 PSI (0 to 8 bar)
H 250 PSI (0 to 17 bar)
With Gauge
M 60 PSI (0 to 4 bar)
G 125 PSI (0 to 8 bar)
J 250 PSI (0 to 17 bar)

Lubricator Type
Oil Mist
L w/ Polycarbonate Sight Dome
A w/ Nylon Sight Dome

Lubricator Drain / Fill Devices
N No Drain, Solid Bowl / Fill Plug
M Manual Twist Drain / Fill Plug
A Automatic Fill / Fill Plug
S Bowl Pressure Fill / Fill Plug
H No Drain / Body Pressure Fill
J Manual Twist Drain / Body Pressure Fill

Mounting Options
A No Brackets or Kits
B Wall Bracket

BOLD ITEMS ARE MOST POPULAR.

CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

⚠ WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

Kits & Accessories (See individual component sections for other kits and accessories.)

Wall Mounting Kit* P3NKA00MW

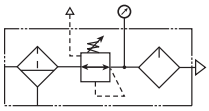
* If 1-1/2 BSPP E02 fittings are required, use P3NKA0BMW.

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Modular Combinations – P3N Hi-Flow Series

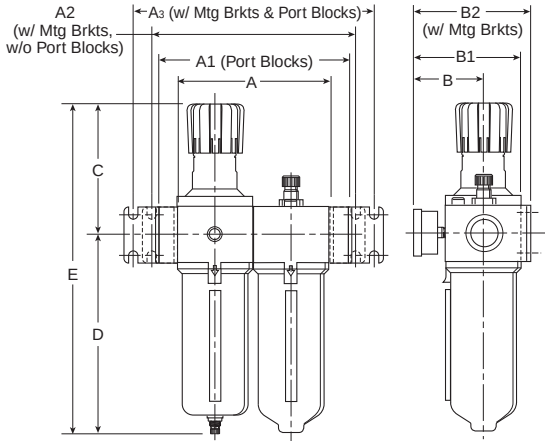
- Regulator can be mounted with knob in up or down position.
- See individual component pages for details.

Two-Unit Combo





- 40 Micron Filter Element
- Manual Twist Drain
- Relieving Regulator
- 125 PSI (8.6 bar)



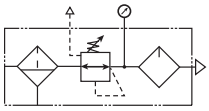
Series	Port	Model Numbers
P3NCA	3/4"	**P3NCA96SGMNNLNA**
	1"	**P3NCA98SGMNNLNA**
	1-1/2" †	**P3NCA9PSGMNNLNA**

Notes: All Combo part numbers are with regulator knob in up position.
† 1" Port Body with 1-1/2" Port Block.
For other models, refer to Ordering Information on next page.

A	**A_1**	**A_2**	**A_3**	**B**	**B_1**	**B_2**
7.24 (184)	9.53 (242)	9.84 (250)	12.13 (308)	3.62 (92)	5.20 (132)	5.74 (146)
C	**D**	**E**				
6.38 (162)	9.57 (243)	15.95 (405)				

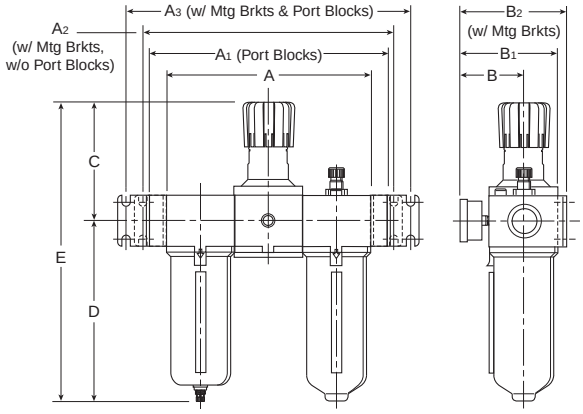
Inches (mm)
- All dimensions nominal.
- **Mounting brackets not included (change last character in model number to "B" if required).**
- **Gauges not included (change 12th character to "G" if required).**

Three-Unit Combo





- 40 Micron Filter Element
- Manual Twist Drain
- Relieving Regulator
- 125 PSI (8.6 bar)



Series	Port	Model Numbers
P3NCB	3/4"	**P3NCB96SGMNNLNA**
	1"	**P3NCB98SGMNNLNA**
	1-1/2"†	**P3NCB9PSGMNNLNA**

Notes: All Combo part numbers are with regulator knob in up position.
† 1" Port Body with 1-1/2" Port Block.
For other models, refer to Ordering Information on next page.

A	**A_1**	**A_2**	**A_3**	**B**	**B_1**	**B_2**
10.87 (2764)	13.15 (334)	13.46 (342)	15.75 (400)	3.62 (92)	5.20 (132)	5.74 (146)
C	**D**	**E**				
6.38 (162)	9.57 (243)	15.95 (405)				

Inches (mm)
- All dimensions nominal.
- **Mounting brackets not included (change last character in model number to "B" if required).**
- **Gauges not included (change 12th character to "G" if required).**

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Modular Combinations – P3N Hi-Flow Series

Ordering Information

P3N	C	A	9	6	S	G	M	N	N	L	N	A

Series

Type
- **C Combination - Modular**

Combination

Metal Bowl
- **A Hi-Flow 2-Unit**
- **B Hi-Flow 3-Unit**

Port Type
- 1 G Thread (BSPP) Female
- 2 Rc Thread (BSPT) Female
- **9 NPT Female**

Port Size
- **6 3/4" (w/o Port Blocks)**
- **8 1" (w/o Port Blocks)**
- **H 3/4" Port Blocks (w/ 3/4" Ported Body)**
- **M 1" Port Blocks (w/ 1" Ported Body)**
- **P 1-1/2" Port Blocks (w/ 1" Ported Body)**

Bowl
- **S Metal Bowl w/ Sight Gauge**

Filter Elements
- E 5 Micron
- **G 40 Micron**
- J 25 Micron, Porous Bronze

Filter Drains
- **M Twist Drain**
- A Automatic Float Drain

Relief
- **N Relieving**
- M Non-Relieving

Regulator Pressure Range & Gauges

Without Gauge
- L 60 PSI (0 to 4 bar)
- **N 125 PSI (0 to 8 bar)**
- H 250 PSI (0 to 17 bar)

With Gauge
- M 60 PSI (0 to 4 bar)
- G 125 PSI (0 to 8 bar)
- J 250 PSI (0 to 17 bar)

Lubricator Type

Oil Mist
- **L w/ Polycarbonate Sight Dome**
- A w/ Nylon Sight Dome

Lubricator Drain / Fill Devices
- **N No Drain, Solid Bowl / Fill Plug**
- M Manual Twist Drain / Fill Plug
- A Automatic Fill / Fill Plug
- S Bowl Pressure Fill / Fill Plug
- H No Drain / Body Pressure Fill
- J Manual Twist Drain / Body Pressure Fill

Mounting Options
- **A No Brackets or Kits**
- B Wall Bracket

BOLD ITEMS ARE MOST POPULAR.

CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

⚠ WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

Kits & Accessories (See individual component sections for other kits and accessories.)

Port Block Kits: For Modular Combinations

	3/4"	1"	1-1/2"
NPT	P3NKB96CL	P3NKB98CL	P3NKB9BCL
BSPP	P3NKB16CL*	P3NKB18CL*	P3NKB1BCL*

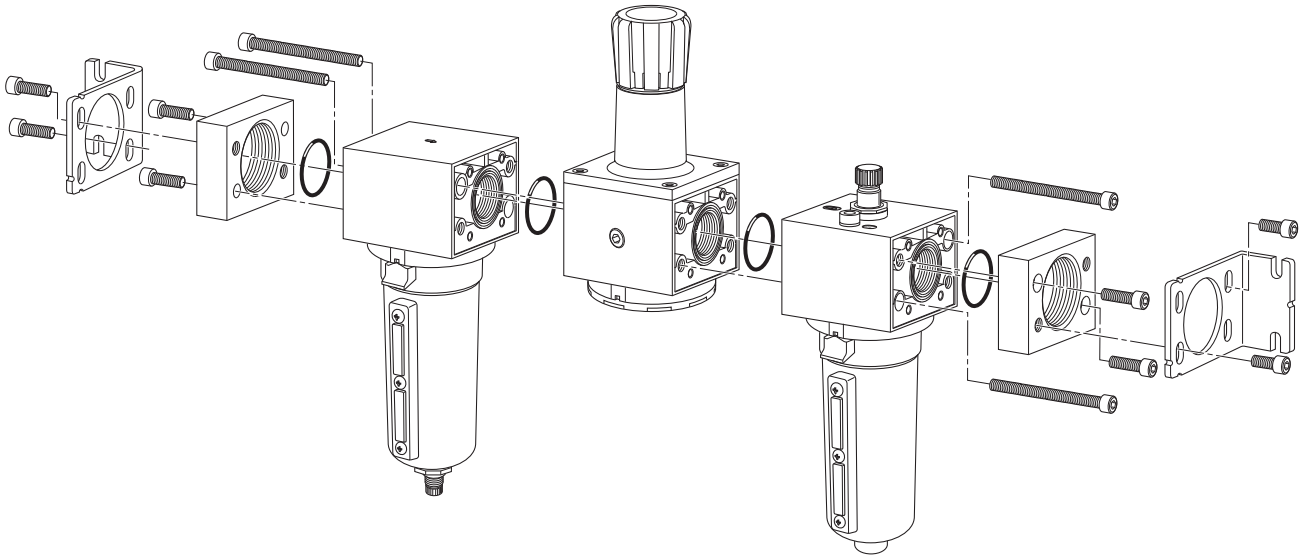
* 3/4, 1 & 1-1/2 inch meet ISO 1179-1 Standard.

Wall Mounting Kit* P3NKA00MW

* If 1-1/2 BSPP E02 fittings are required, use P3NKA0BMW.

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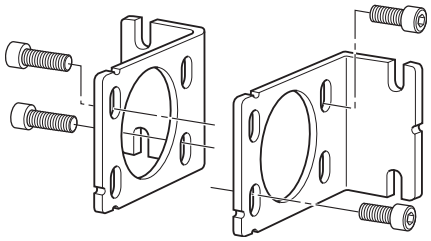
Modular Accessories – P3N Hi-Flow Series



Mounting Brackets

P3NKA00MW

For 1-1/2" BSPP Port Block with E02 fitting application, use **Mounting Bracket Kit P3NKA0BMW**

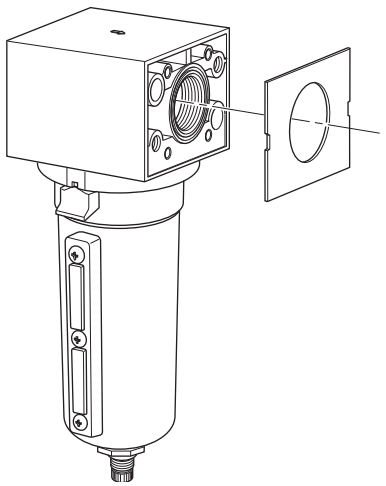


Replacement Body Covers

P3NKA00PM

Each Kit contains two covers.

All units are shipped with body covers.



For modular combinations, one side has groove and the mating side is flat. Use the o-ring seal provided in the groove. For some modular combinations, both surfaces may have grooves. In those applications, use o-ring in one groove and square seal provided in the other.

Port Block Kits

	3/4"	1"	1-1/2"

Individual Filters, Individual Regulators and 2-Piece Filter and Regulator Assemblies:

NPT	**P3NKB96CP**	**P3NKB98CP**	**P3NKB9BCP**
BSPP	**P3NKB16CP***	**P3NKB18CP***	**P3NKB1BCP***

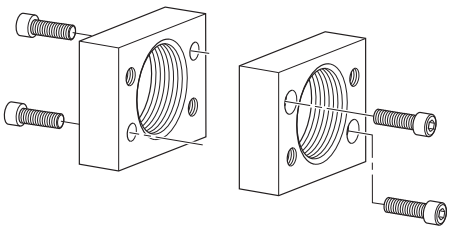
2 and 3 Piece Combinations including a Lubricator (FR/L & FRL), Individual Lubricators, Individual Coalescing Filters and 2-Piece Filter and Coalescer Assemblies:

NPT	**P3NKB96CL**	**P3NKB98CL**	**P3NKB9BCL**
BSPP	**P3NKB16CL***	**P3NKB18CL***	**P3NKB1BCL***

Port Block Kits allow units to be installed or removed as modular components.

Each Kit includes all the necessary pieces to make two port connections.

* 3/4, 1 & 1-1/2 inch meet ISO 1179-1 Standard.

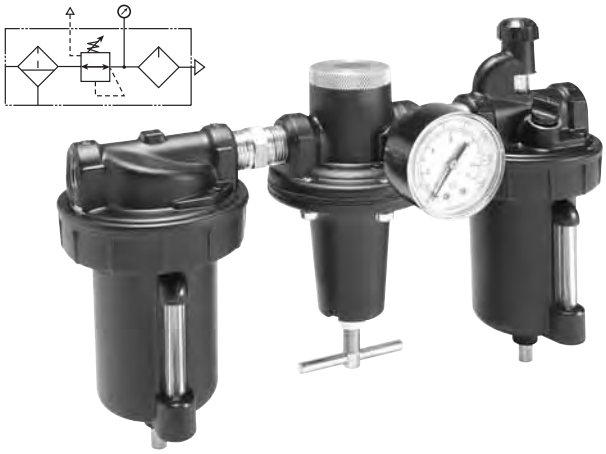


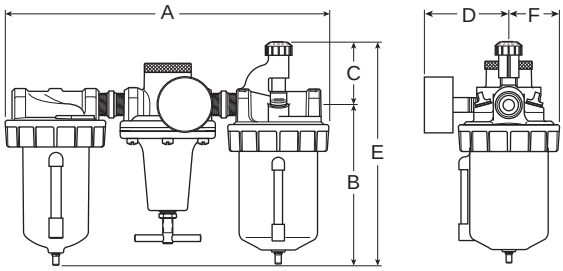
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Standard Combinations – C628 Series

- See individual component s for details.
- Gauges included on combinations.

Three-Unit Combo





Series	Port	Model Numbers
C628	3/4"	**C628-06FRLWJCW**
	1"	**C628-08FRLWJCW**
	1-1/4"	**C628-10FRLWJCW**
	1-1/2"	**C628-12FRLWJCW**

For other models, refer to ordering information below.

A	B	C	D	E	F
C628-06FRL, C628-08FRL					
15.75 (400)	7.75 (197)	5.25 (133)	3.52 (89)	13.00 (330)	2.48 (63)
C628-10FRL, C628-12FRL					
16.50 (419)	8.13 (206)	6.00 (152)	3.86 (98)	14.13 (359)	2.64 (67)

Inches (mm)
• All dimensions nominal.

Ordering Information

C	628	—	06	FRL	W	J	C	W	

Port Size
06 3/4 Inch
08 1 Inch
10 1-1/4 Inch
12 1-1/2 Inch

Filter Bowl Options
E 32 oz. Large Capacity wo/Sight Gauge
W 16 oz. Metal w/Sight Gauge

Elements
G 5 Micron
J 40 Micron

Regulator Reduced Pressure Range
C 0-125 PSIG
D 0-250 PSIG

Drains and Options
H Button Head Fill Fitting (Lubricator)
K Non-Relieving Regulator
Q External Heavy Duty Auto Drain (Filter)
R Internal Auto Drain (Filter)
X9 Manual Twist Drain on Lubricator (Increases Product Length by 9/16 Inch)

BOLD ITEMS ARE MOST POPULAR.

Lubricator Bowl Options
E 32 oz. Large Capacity wo/Sight Gauge
W 16 oz. Metal w/Sight Gauge

CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

⚠ WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

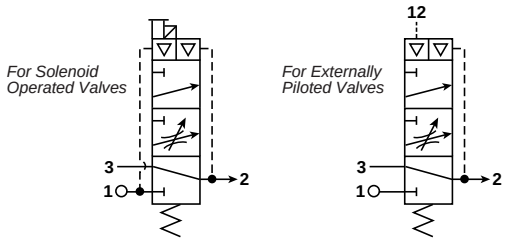
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Richland, Michigan
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05S Soft Start / Quick Dump Valve

Features

- Combines Soft Start and Quick Dump Valve in the same body
- Large flow capacities up to 1.6 Cv
- Inline or Modular mounting
- Air Pilot or Solenoid operation
- Soft Start flow easily adjusted





Operation

When the valve is installed into the pneumatic system and no pilot signal is received in port 12 the air is exhausted through port 3. When a pilot signal is received into port 12 the valve shifts closing the connection between ports 2 and 3. At the same time air flow begins between ports 1 and 2 at a slow rate controlled by the throttling control needle, located on the front of the valve. When the down stream pressure reaches approximately 60 PSIG (4 bar) the main valve spool opens allowing full flow through the valve into your system.

If there is a loss of pilot signal or system pressure at anytime the valve returns to it's initial state venting the down stream pressure through port 3.

The valves pilot signal can either be supplied as a pneumatic pilot directly piped into port 12, on the top of the valve, or through a solenoid pilot mounted on the head. The valve should be mounted downstream of the FRL and with the soft start adjustment needle easily accessible**.**

⚠ **CAUTION:** Do not use synthetic, reconstituted, or oils with an alcohol content or detergent additive.

⚠ **CAUTION:** Do not restrict the inlet of valves having an internal pilot supply. Pressure supply piping must be the same size as the inlet port or larger to insure that the pilot valve receives sufficient pressure supply during high flow conditions.

Ordering Information

05S	2	XX	*

Port Size
2 3/8 Inch

Operator / Voltage	
XX	Air Pilot
XP	Air Pilot with Prestolok
	30-145 PSI
49	24VDC
53	120VAC

Engineering Level
* Will be Entered at Factory

Note:
BSPP Available with Port Blocks Only, Meets ISO 1179-1 Standard.

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Performance Characteristics

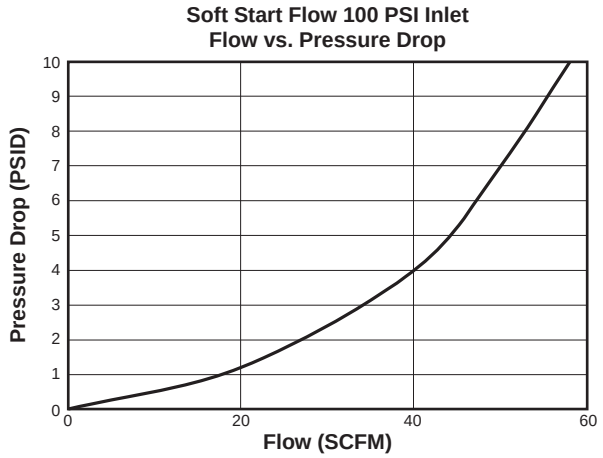


Table 1: Shows the relationship between the inlet pressure and downstream pressure at which the main valve opens.

Inlet Pressure PSIG	Downstream Pressure PSIG
75	50
100	55
125	60
150	65

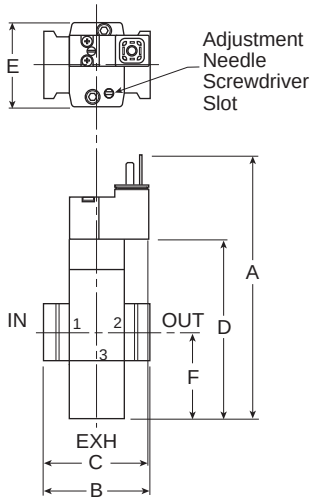
Table 2: Product forward Flow Cv and Exhaust Flow Cv.

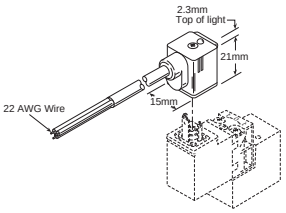
Series	Flow Cv	Exhaust Flow Cv
05S	1.3	1.6

Dimensions

Model	Port Size	A	B	C	D	E
05S	3/8"	2.00 (51)	3.53 (90)	1.42 (36)	1.65 (42)	2.03 (52)

Inches (mm)





PS2946J79P

Kits & Accessories

3-Pin Female Connector Kit*† PS2932P

24VAC Lighted 3-Pin Connector Kit*† PS294679P

120/110VAC Lighted 3-Pin Connector Kit*† PS294683P

3-Pin Connector Kit, 24VAC or 24VDC w/6 Foot Cord* PS2946J79P

3-Pin Connector Kit, 120/110VAC w/6 Foot Cord* PS2946J83P

3/8" Exhaust Silencer (05S) ES37MB

***** Conductors: 2 Poles Plus Ground
Contact Spacing: 8mm

† Cable Range: 6 to 8mm (0.24 to 0.31 Inch)

Specifications

Exhaust Port ..... 3/8 Inch

Port Threads – Inlet and Outlet Ports – ..... 3/8 inch
BSPP and BSPT port threads are available through the use of modular port block kits

Pressure & Temperature Ratings –

Solenoid – 30 to 145 PSIG (2.1 to 10 bar)
32°F to 140°F (0°C to 60°C)

Air Pilot – 30 to 145 PSIG (2.1 to 10 bar)
32°F to 160°F (0°C to 70°C)

Air Pilot with Prestolok Adaptor – 30 to 145 PSIG (2.1 to 10 bar)
32°F to 150°F (0°C to 65°C)

⚠ **CAUTION:** The actual maximum pressure and temperature ratings noted above for valves with Prestolok fittings, are dependent upon the type of tubing that is used.

Weight ..... 12.7 oz. (0.36 kg)

Materials of Construction

Body ..... Aluminum

Seals ..... Nitrile

Slide Rings ..... Lubricant Filled Thermoplastic

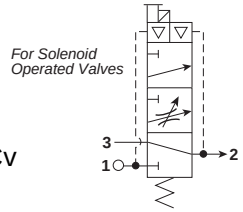
Springs ..... Stainless Steel

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Richland, Michigan
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06S & 07S Soft Start / Quick Dump Valve

Features

- Combines Soft Start and Quick Dump Valve in the same body
- Large flow capacities up to 5.7 Cv
- Inline or Modular mounting
- Soft Start flow easily adjusted

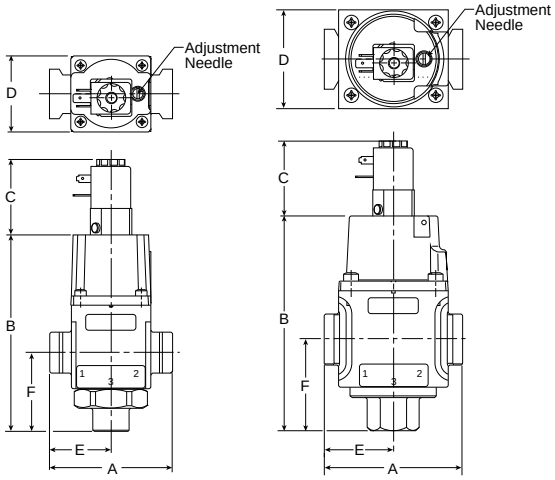




06S



07S



06S **07S**

Dimensions:

Model	Port Size	A	B	C	D	E	F
06S	3/8"	3.36 (85)	5.40 (137)	2.07 (53)	2.08 (53)	1.68 (43)	2.17 (55)
07S	1/2"	3.81 (96)	5.96 (151)	2.07 (53)	2.74 (70)	1.91 (48)	2.54 (65)

Inches (mm)

Operation

When the valve is installed into the pneumatic system and pilot operator receives no signal, the air is blocked at Port 1. When a pilot signal is received at pilot operator, the valve shifts closing the connection between Ports 2 and 3. At the same time air flow begins between Ports 1 and 2 at a slow rate controlled by the needle valve located on the top of the valve. When the down stream pressure reaches approximately 60% of the supply pressure, the main valve spool opens allowing full flow through the valve into the system. If pilot signal or system pressure is lost, the valve returns to it's initial state venting the down stream pressure through Port 3.

Pressure supply piping must be the same size as the inlet port or larger to insure that the pilot valve receives sufficient pressure supply during high flow conditions.

The valves pilot signal is through a solenoid pilot mounted on the head. The valve should be mounted downstream of the FRL and with the soft start adjustment needle easily accessible.

⚠ **CAUTION:** Do not use synthetic, reconstituted, or oils with an alcohol content or detergent additive.

⚠ **CAUTION:** Do not restrict the inlet of valves.

Ordering Information

06S	2	53	*	—

Series

06S	**Soft Start / Quick Dump Valve**
07S	**Soft Start / Quick Dump Valve**

Port Size

2 3/8 Inch (06S)
3 1/2 Inch (07S)

Operator / Voltage

	30-145 PSI
49	**24VDC***
53	**120/60 Hz***
	145-200 PSI
69	**24VDC****
73	**120/60 Hz****
MDB1	**M12 Male Connector, 4 Pole**

* For Voltage Options 49 and 53, use 22mm connectors
** For Voltage Options 69 and 73, use 30mm connectors

Engineering Level

* Will be Entered at Factory

Thread Type / Label

Blank	**NPT**
1*	BSPP (G)

* 3/8 & 1/2 inch meet ISO 1179-1 Standard.

BOLD ITEMS ARE MOST POPULAR.

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Pneumatic Division
Richland, Michigan
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Performance Characteristics

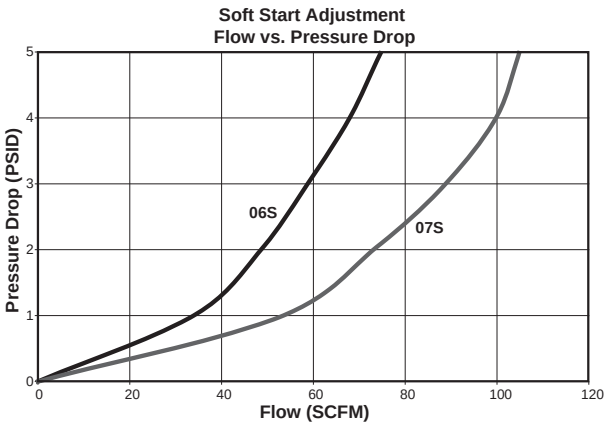


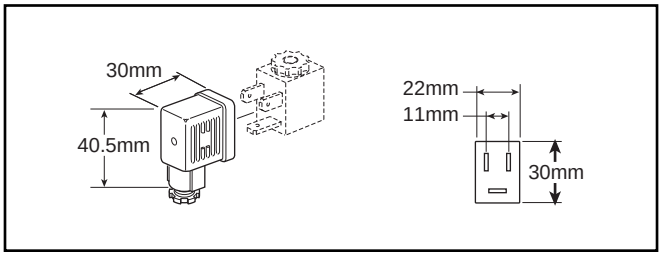
Table 1: Shows the relationship between the inlet pressure and downstream pressure at which the main valve opens.

Inlet Pressure PSIG	Downstream Pressure PSIG	
	06S	07S
75	55	52
100	67	68
125	80	82

Table 2: Product forward Flow Cv and Exhaust Flow Cv.

Series	Flow Cv	Exhaust Flow Cv
06S	4.1	3.4
07S	5.7	4.6

22mm Rectangular 3-Pin



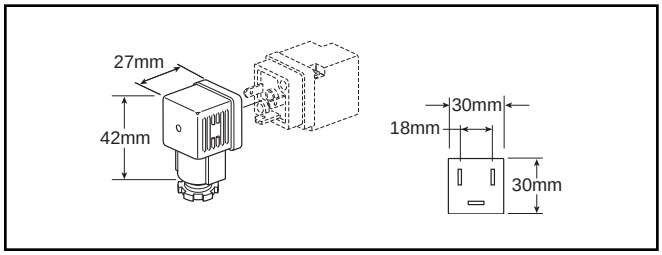
Connector	Connector with 6' (2m) Cord	Description
PS2429BP	PS2429JBP	Unlighted
PS243079BP	PS2430J79BP*	Light – 24VDC
PS243083BP	PS2430J83BP*	Light – 120V/60Hz

* LED with surge suppression.

Note: Max ø6.5mm cable size required for connector w/o 6' (2m) cord. IP65 rated when properly installed.

Engineering Data:
Conductors: 2 Poles Plus Ground; Cable Range (Connector Only): 6 to 8mm (0.24 to 0.31 Inch); Contact Spacing: 11mm

30mm Square 3-Pin



Connector	Connector with 6' (2m) Cord	Description
PS2028BP	PS2028JBP	Unlighted
PS203279BP	PS2032J79BP*	Light – 24VDC
PS203283BP	PS2032J83BP*	Light – 120V/60Hz

* LED with surge suppression.

Note: Max ø6.5mm cable size required for connector w/o 6' (2m) cord. IP65 rated when properly installed.

Engineering Data:
Conductors: 2 Poles Plus Ground; Cable Range (Connector Only): 8 to 10mm (0.31 to 0.39 Inch); Contact Spacing: 18mm

Kits & Accessories

06S Repair Kit PHRKSC75
07S Repair Kit PHRKSC105
06 Modular Body Connectors PS754P
07 Modular Body Connectors PS854P
1/2" Exhaust Silencer ES50MB
3/4" Exhaust Silencer ES75MB

Specifications

Exhaust Ports
06S ..... 1/2 Inch
07S ..... 3/4 Inch

Inlet and Outlet Ports
06S ..... 3/8 Inch
07S ..... 1/2 Inch

Maximum Pressure –
Standard Coil ..... 145 PSIG (10.0 bar)
High Pressure Coil ..... 200 PSIG (13.8 bar)

Minimum Operating Pressure ..... 30 PSIG (2.1 bar)

Temperature Ratings ..... 40°F to 120°F (4°C to 49°C)

Weight
06S ..... 2.25 lbs. (1.02 kg)
07S ..... 3.75 lbs. (1.70 kg)

Materials of Construction

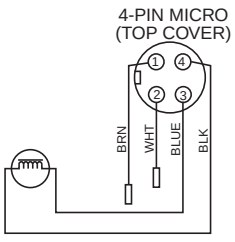
Body ..... Aluminum
Bottom Plug ..... Brass

Connections

Central M12 Male Connector, 4 Pole

Pin Number		Function	Color
1	24V	Supply	Brown
2	0 to 10V or 4 to 20mA	Control Signal Ri = 100k Ω	White
3	0V (GND)	Supply	Blue
4	24V	Alarm Output Signal	Black

ISO 20401

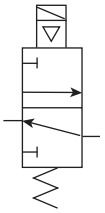


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06T & 07T Solenoid Quick Dump Valve

Features

- Shuts off incoming pressure while rapidly exhausting downstream pressure
- Large exhaust flow capacities up to 5.0 Cv
- Solenoid operation
- Non-locking manual override
- Inline or Modular Mounting

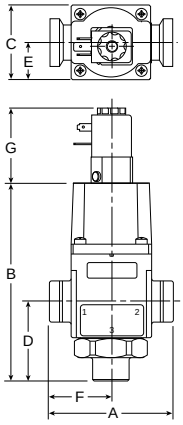




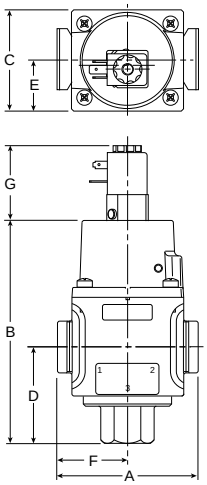
06T



07T



06T



07T

Dimensions:

Model	Port Size	A	B	C	D	E	F	G	H
06T	3/8"	3.36 (85)	5.40 (137)	2.08 (53)	2.17 (26)	1.04 (43)	1.68 (43)	2.07 (53)	1.90 (48)
07T	1/2"	3.81 (96)	5.96 (151)	2.74 (70)	2.55 (65)	1.37 (35)	1.91 (48)	2.07 (53)	1.90 (48)

Inches (mm)

Operation

The solenoid quick dump valves are high flow, normally closed, 3-Port, 2-Position directional control valves. Upon energizing the solenoid, inlet air is applied to the top of the piston. The piston pushes against the spring and opens the main valve providing full flow air to the downstream. When the solenoid is de-energized, the main valve closes allowing downstream air to exhaust rapidly through the bottom plug. The bottom plug is tapped so that exhaust may be piped away or fitted with a muffler.

⚠ **CAUTION:** Do not use synthetic, reconstituted, or oils with an alcohol content or detergent additive.

⚠ **CAUTION:** Do not restrict the inlet of valves having an internal pilot supply. Pressure supply piping must be the same size as the inlet port or larger to insure that the pilot valve receives sufficient pressure supply during high flow conditions.

Ordering Information

06T	2	53	*	—

Series

06T	**Solenoid Quick Dump Valve**
07T	**Solenoid Quick Dump Valve**

Port Size

2 3/8 Inch (06T)
3 1/2 Inch (07T)

Operator / Voltage

	30-145 PSI
49	**24VDC***
53	**120/60 Hz***
	145-200 PSI
69	**24VDC****
73	**120/60 Hz****
MDB1	**M12 Male Connector, 4 Pole**

* For Voltage Options 49 and 53, use 22mm connectors
** For Voltage Options 69 and 73, use 30mm connectors

Engineering Level

* Will be Entered at Factory

Thread Type / Label

Blank	**NPT**
1*	BSPP (G)

* 3/8 & 1/2 inch meet ISO 1179-1 Standard.

BOLD ITEMS ARE MOST POPULAR.

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Pneumatic Division
Richland, Michigan
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Performance Characteristics

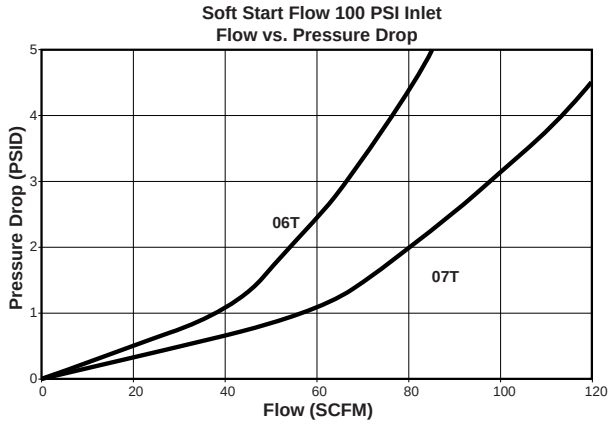
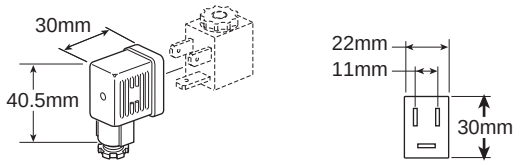


Table 2: Product forward Flow Cv (1 to 2).

Series	Flow Cv	Exhaust Flow Cv
06T	3.7	4.1
07T	5.5	5.0

22mm Rectangular 3-Pin



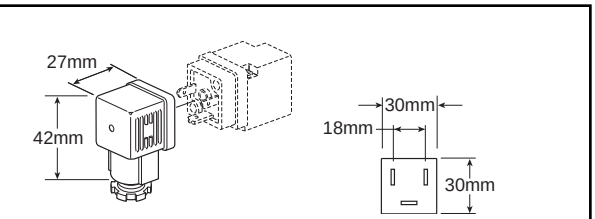
Connector	Connector with 6' (2m) Cord	Description
PS2429BP	PS2429JBP	Unlighted
PS243079BP	PS2430J79BP*	Light – 24VDC
PS243083BP	PS2430J83BP*	Light – 120V/60Hz

* LED with surge suppression.

Note: Max ø6.5mm cable size required for connector w/o 6' (2m) cord. IP65 rated when properly installed.

Engineering Data:
Conductors: 2 Poles Plus Ground; Cable Range (Connector Only): 6 to 8mm (0.24 to 0.31 Inch); Contact Spacing: 11mm

30mm Square 3-Pin



Connector	Connector with 6' (2m) Cord	Description
PS2028BP	PS2028JBP	Unlighted
PS203279BP	PS2032J79BP*	Light – 6-24VDC
PS203283BP	PS2032J83BP*	Light – 120V/60Hz

* LED with surge suppression.

Note: Max ø6.5mm cable size required for connector w/o 6' (2m) cord. IP65 rated when properly installed.

Engineering Data:
Conductors: 2 Poles Plus Ground; Cable Range (Connector Only): 8 to 10mm (0.31 to 0.39 Inch); Contact Spacing: 18mm

Kits & Accessories

06T Repair Kit PHRKS75
07T Repair Kit PHRKS105
06 Modular Body Connectors PS754P
07 Modular Body Connectors PS854P
1/2" Exhaust Silencer ES50MB
3/4" Exhaust Silencer ES75MB

Specifications

Exhaust Ports
06T ..... 1/2 Inch
07T ..... 3/4 Inch

Inlet and Outlet Ports
06T ..... 3/8 Inch
07T ..... 1/2 Inch

Maximum Pressure –
Standard Coil ..... 145 PSIG (10.0 bar)
High Pressure Coil ..... 200 PSIG (13.8 bar)

Minimum Operating Pressure ..... 30 PSIG (2.1 bar)

Temperature Ratings ..... 40°F to 120°F (4°C to 49°C)

Weight
06T ..... 2.25 lbs. (1.02 kg)
07T ..... 3.75 lbs. (1.70 kg)

Materials of Construction

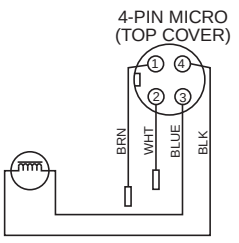
Body ..... Aluminum
Bottom Plug ..... Brass

Connections

Central M12 Male Connector, 4 Pole

Pin Number		Function	Color
1	24V	Supply	Brown
2	0 to 10V or 4 to 20mA	Control Signal Ri = 100k Ω	White
3	0V (GND)	Supply	Blue
4	24V	Alarm Output Signal	Black

ISO 20401

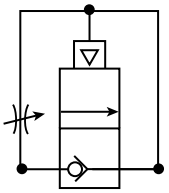


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06P & 07P Auto Pilot Soft Start Valve

Features

- Smooth start-up of pneumatic system
- Air pilot operation
- Large flow capacities up to 5.5 Cv
- Inline or Modular Mounting





06P



07P

Operation

When pressure is supplied to the inlet port, gradual filling of the downstream system occurs through the adjustable needle valve. The piston opens the main valve when the downstream side of the valve reaches approximately 60% of the supply pressure. The ramp up time to reach the switch over pressure is adjustable via the needle valve in the cover.

The Auto pilot soft start valve is not intended to be used as a shut off valve and should always be placed after a shut off valve.

⚠ **CAUTION:** Do not use synthetic, reconstituted, or oils with an alcohol content or detergent additive.

⚠ **CAUTION:** Do not restrict the inlet of valves having an internal pilot supply. Pressure supply piping must be the same size as the inlet port or larger to insure that the pilot valve receives sufficient pressure supply during high flow conditions.

Ordering Information

06P	2	*	—

Series	
06P	**Auto Pilot Soft Start Valve**
07P	**Auto Pilot Soft Start Valve**

Port Size
2 3/8 Inch (06P)
3 1/2 Inch (07P)

Engineering Level
* Will be Entered at Factory

Thread Type / Label	
Blank	**NPT**
1*	BSPP (G)

* 3/8 & 1/2 inch meet ISO 1179-1 Standard.

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Performance Characteristics

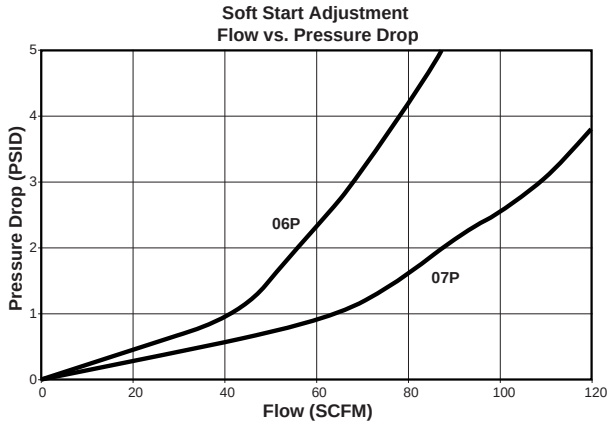


Table 1: Shows the relationship between the inlet pressure and downstream pressure at which the main valve opens.

Inlet Pressure PSIG	Downstream Pressure PSIG	
	06P	07P
75	45	25
100	60	33
125	75	38
150	85	45

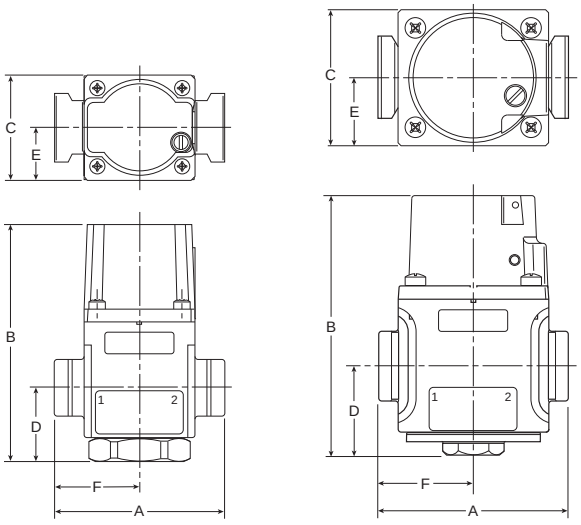
Table 2: Product forward Flow Cv (1 to 2).

Series	Flow Cv
06P	3.8
07P	5.5

Dimensions:

Model	Port Size	A	B	C	D	E	F
06P	3/8"	3.36 (85)	4.70 (119)	2.08 (53)	1.48 (38)	1.04 (26)	1.68 (43)
07P	1/2"	3.81 (96)	5.21 (132)	2.07 (53)	1.80 (46)	1.37 (35)	1.91 (48)

Inches (mm)



06P **07P**

Repair Kits

06P Repair Kit PHRKSS75
07P Repair Kit PHRKSS105
06 Modular Body Connectors PS754P
07 Modular Body Connectors PS854P

Materials of Construction

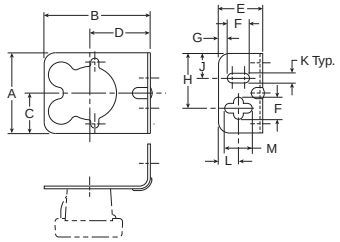
Body ..... Aluminum
Bottom Plug –
06P ..... Brass
07P ..... Zinc

Specifications

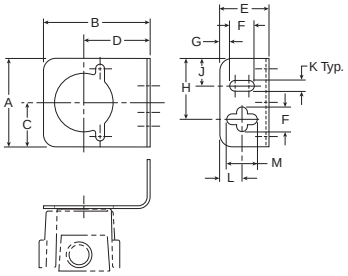
Maximum Pressure ..... 300 PSIG (20.7 bar)
Minimum Operating Pressure ..... 30 PSIG (2.1 bar)
Temperature Ratings ..... 40°F to 120°F (4°C to 49°C)
Opens to Full Flow ..... 60% Supply Pressure
Weight –
06P ..... 2.75 lb. (1.25 kg)
07P ..... 4.50 lb. (2.04 kg)

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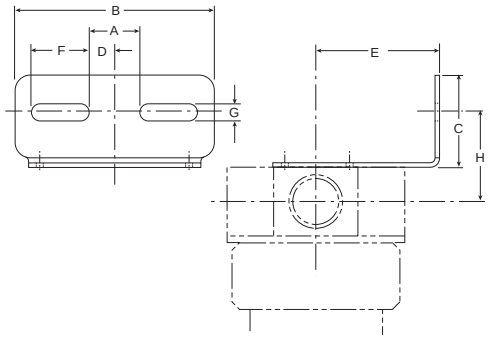
Mounting Bracket Kits



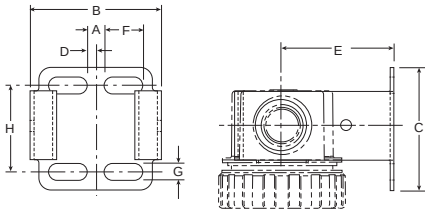
PS417BP
(Includes Panel Mount Nut)



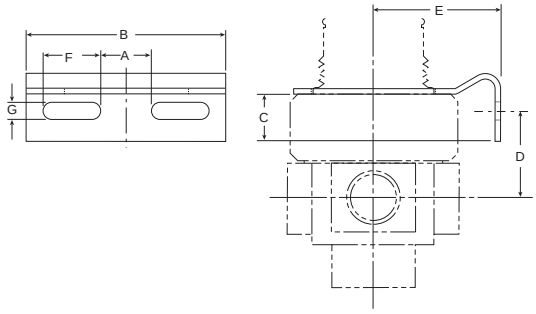
PS419
(Includes Panel Mount Nut)



PS743P, PS843P

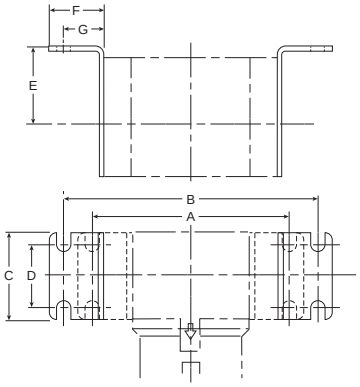


PS943P



PS707P & PS807P
(Includes Panel Mount Nut)

PS963P
(Includes Aluminum Panel Mount Nut)



P3NKA00MW

Dimensions

A	B	C	D	E	F	G	H	J	K	L	M	Kit
1.80 (46)	2.37 (60)	0.90 (23)	1.35 (34)	1.00 (25)	0.50 (13)	0.20 (5)	1.24 (31)	0.56 (14)	0.22 (6)	0.45 (11)	0.62 (16)	**PS417BP** (10F, 14F, P3A, 14R, 14E)
1.80 (46)	2.17 (55)	0.90 (23)	1.35 (34)	1.00 (25)	0.50 (13)	0.20 (5)	1.24 (31)	0.56 (14)	0.22 (6)	0.45 (11)	0.62 (16)	**PS419** (04L)
0.84 (21)	3.25 (83)	1.50 (38)	0.42 (11)	2.00 (51)	0.94 (24)	0.28 (7)	1.44 (37)	—	—	—	—	**PS743P** (06F, 11F, 06L, 16L)
1.00 (25)	3.94 (100)	1.57 (40)	0.50 (13)	2.19 (56)	1.25 (32)	0.28 (7)	1.68 (43)	—	—	—	—	**PS843P** (07F, 12F, 07L, 17L)
0.28 (7)	2.12 (54)	2.00 (51)	0.14 (4)	1.85 (47)	0.63 (16)	0.28 (7)	1.41 (36)	—	—	—	—	**PS943P** (05F, 15F, 15L)
0.84 (21)	2.59 (66)	0.49 (12)	1.02 (26)	1.85 (47)	0.61 (15)	0.28 (7)	—	—	—	—	—	**PS963P** (05R, 10R, 05E, 27E)
0.84 (21)	3.26 (83)	0.77 (20)	1.46 (37)	2.00 (51)	0.94 (24)	0.28 (7)	—	—	—	—	—	**PS707P** (06R, 06E, 11R)
1.00 (25)	3.94 (100)	0.65 (17)	1.68 (43)	2.19 (56)	1.25 (32)	0.28 (7)	—	—	—	—	—	**PS807P** (07R, 07E, 12R)
6.22 (158)	8.19 (208)	2.75 (70)	1.97 (50)	2.36 (60)	1.77 (45)	1.30 (33)	—	—	—	—	—	**P3NKA00MW** (P3NF, P3NR, P3NE, P3NL)

inches (mm)

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Stainless Steel FRLs

Air Preparation Units

B

Section B

www.parker.com/pneu/ssfrls



Product Selection Chart B3

Air Line Filters

Miniature PF504 ..... B4-B5

Standard PF10 ..... B6-B7

Air Line Coalescing Filters

Miniature PF501 ..... B8-B9

Standard PF11 ..... B10-B11

Air Line Regulators

Miniature PR354, PR364 ..... B12-B13

Standard PR10, PR11 ..... B14-B15

Filter / Regulator

Miniature PB548, PB558 ..... B16-B17

Standard PB11, PB12 ..... B18-B19

Air Line Lubricators

Standard PL10 ..... B20-B21

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B

Product Selection Chart

Basic Unit	Series	Port Size		Bowls	Capacity	Elements (Micron)			Page
		1/4	1/2			5	20	40	
FILTERS	PF504	X	—	316 Stainless Steel	1 oz.	Opt.	Std.	—	B4-B5
	PF10	—	X	316 Stainless Steel	4 oz.	Opt.	—	Std.	B6-B7
COALESCING FILTERS	PF501	X	—	316 Stainless Steel	1 oz.	.3 Micron			B8-B9
	PF11	—	X	316 Stainless Steel	4 oz.	.3 Micron			B10-B11

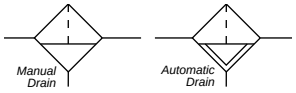
Basic Unit	Series	Port Size		Spring Range				Page
		1/4	1/2	25	60	125	250	
REGULATORS	PR354	X	—	Std.	Std.	Std.	—	B12-B13
	PR364	X	—	Std.	Std.	Std.	—	
	PR10	—	X	—	Std.	Std.	Opt.	B14-B15
	PR11	—	X	—	Std.	Std.	Opt.	

Basic Unit	Series	Port Size		Bowls	Capacity	Elements (Micron)			Spring Range				Page
		1/4	1/2			5	20	40	25	60	125	250	
FILTER / REGULATORS	PB548	X	—	316 Stainless Steel	1 oz.	Opt.	Std.	—	Opt.	Opt.	Std.	—	B16-B17
	PB558	X	—	316 Stainless Steel	1 oz.	Opt.	Std.	—	Opt.	Opt.	Std.	—	
	PB11	—	X	316 Stainless Steel	4 oz.	Opt.	—	Std.	—	Opt.	Std.	Opt.	B18-B19
	PB12	—	X	316 Stainless Steel	4 oz.	Opt.	—	Std.	—	Opt.	Std.	Opt.	
LUBRICATORS	PL10	—	X	316 Stainless Steel	4 oz.								B20-B21

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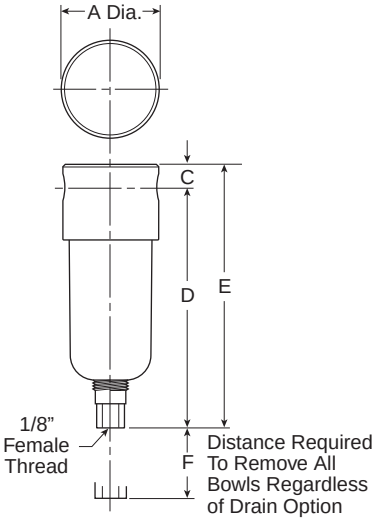
PF504 Filter – Miniature





Features

- Stainless steel construction handles most corrosive environments.
- Fluorocarbon seals standard.
- Meets NACE specifications MR-01-75/ISO 15156.
- 1/8" female threaded drain.
- High Flow: 1/4" - 23 SCFM§



Port Size	NPT	BSPP
	Manual Twist Drain	Manual Twist Drain
1/4"	**PF504-02DHSS**	PF504G02DHSS

Standard part numbers shown bold.
For other models refer to ordering information below.

SCFM = Standard cubic feet per minute at 90 PSIG inlet and 5 PSIG pressure drop.

PF504 Filter Dimensions		
A 1.56 (40)	**C** 0.31 (8)	**D** 3.69 (94)
E 4.00 (102)	**F** 1.58 (40)	

inches (mm)

Ordering Information

PF504	-	02	D	H		SS

Port Type
- **- NPT**
- G BSPP

Port Size
- **02 1/4 Inch**

Bowl
- **D Metal Bowl without Sight Gauge**

Element
- **H 20 Micron**
- G 5 Micron

Options
- **Blank Manual Twist Drain**
- R Automatic Pulse Drain

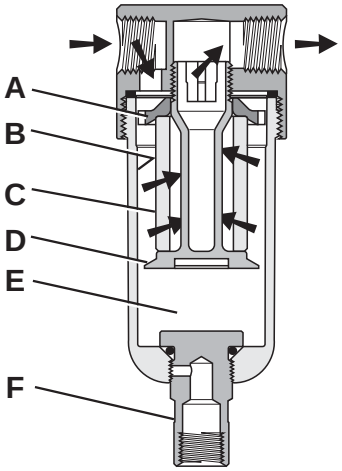
Material
- **SS Stainless Steel**

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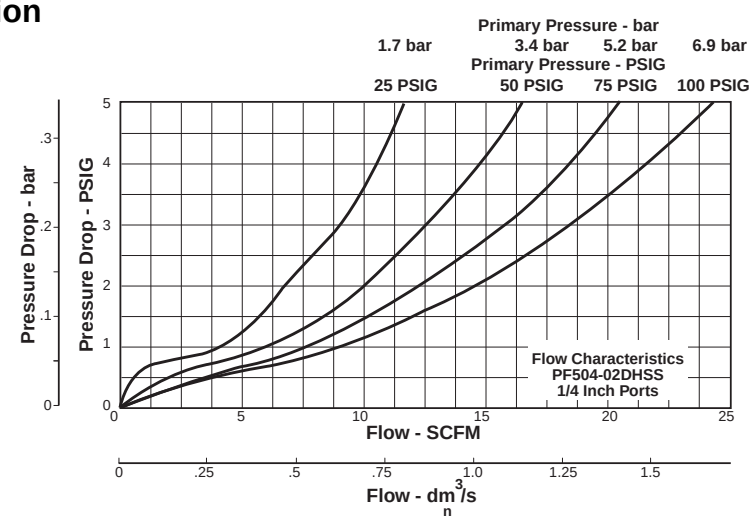
Operation



First Stage Filtration:
Air enters at inlet port and flows through deflector plate **(A)** which causes a swirling action. Liquids and coarse particles are forced to the bowl interior wall **(B)** by the centrifugal action of the swirling air. They are then carried down the bowl wall by the force of gravity. The baffle **(D)** separates the lower portion of the bowl into a "quiet zone" **(E)** where the removed liquid and particles collect, unaffected by the swirling air, and are therefore not reentrained into the flowing air.

Second Stage Filtration:
After liquids and large particles are removed in the first stages of filtration, the air flows through element **(C)** where smaller particles are filtered out. The filtered air then passes downstream. Collected liquids and particles in the "quiet zone" **(E)** should be drained before their level reaches a height where they would be reentrained in the flowing air. This can be accomplished by unscrewing the drain valve **(F)** slightly until the liquid begins to drain.

Technical Information



PF504 Filter Kits & Accessories

Drain Kits –
Automatic Pulse Drain RK504SY-SS
Manual Twist Drain–
Small (Old) SA600Y7-1SS
Large (New) SAP05481

Filter Element Kits –
Particulate (5 Micron) EK504VY
Particulate (20 Micron) EK504Y

Pipe Nipple –
1/4" 316 Stainless Steel 616Y28-SS

Specifications

Bowl Capacity ..... 1.0 Ounces
Filter Rating ..... 20 Micron
Sump Capacity ..... 0.4 Ounce
Port Threads ..... 1/4 Inch

Pressure & Temperature Ratings –
Manual Twist Drain ..... 0 to 300 PSIG (0 to 20.7 bar)
0°F to 180°F (-18°C to 82°C)
Auto Pulse Drain..... 10 to 175 PSIG (0 to 12 bar)
32°F to 150°F (0°C to 66°C)

Note: Air must be dry enough to avoid ice formation at temperatures below 32°F (0°C)

Weight ..... 0.6 lb. (0.27 kg)

Materials of Construction

Body ..... 316 Stainless Steel
Bowls ..... 316 Stainless Steel
Deflector ..... Acetal
Drain ..... 316 Stainless Steel
Element Holder ..... Acetal
Filter Element ..... Polyethylene
Seals ..... Fluorocarbon

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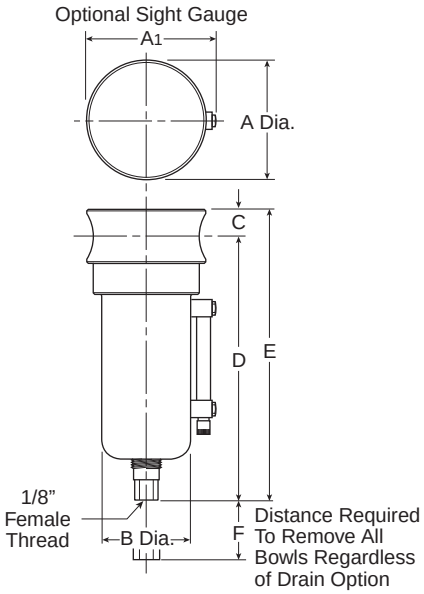
B

PF10 Filter – Standard



Features

- Stainless steel construction handles most corrosive environments.
- Meets NACE specifications MR-01-75/ISO 15156.
- 1/8" female threaded drain.
- High Flow: 1/2" - 70 SCFM§



Port Size	NPT		BSPP	
	Manual Twist Drain	Automatic Float Drain	Manual Twist Drain	Automatic Float Drain
1/2"	**PF10-04WJSS**	**PF10-04WJRSS**	PF10G04WJSS	PF10G04WJRSS

Standard part numbers shown bold.
For other models refer to ordering information below.

SCFM = Standard cubic feet per minute at 90 PSIG inlet and 5 PSIG pressure drop.

PF10 Filter Dimensions		
A 2.38 (60)	**A1** 2.50 (64)	**B** 1.75 (44)
C .56 (14)	**D** 5.00 (127)	**E** 5.56 (141)
F 2.12 (54)		

inches (mm)

Ordering Information

PF10	-	04	W	J		SS

Port Type
- **- NPT**
- G BSPP

Port Size
- **04 1/2 Inch**

Bowl
- D Metal Bowl without Sight Gauge
- **W Metal Bowl with Sight Gauge**

Element
- **J 40 Micron**
- G 5 Micron

Options
- **Blank Manual Twist Drain**
- R Automatic Float Drain

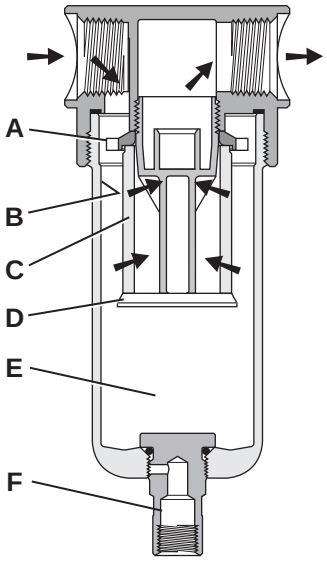
Material
- **SS Stainless Steel**

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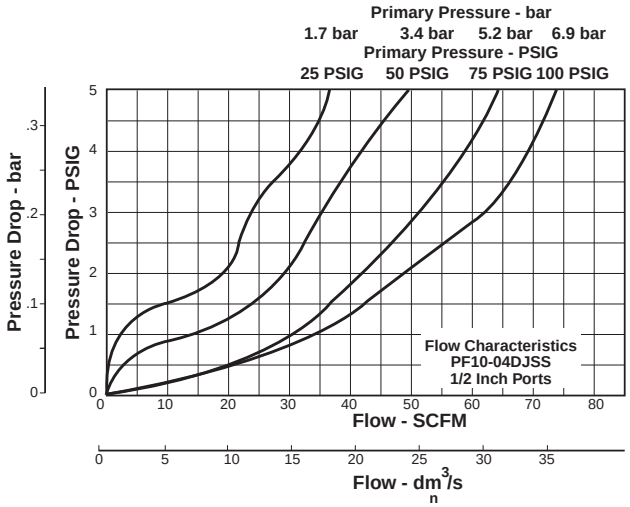
Operation



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Second Stage Filtration:
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Technical Information



PF10 Filter Kits & Accessories

Drain Kit –
Automatic Float Drain SA10MDSS
Manual Twist Drain–
Small (Old) SA600Y7-1SS
Large (New) SAP05481

Filter Element Kits –
Particulate (40 Micron) EK55J
Particulate (5 Micron) EK55G

Pipe Nipple – 1/2" 316 Stainless Steel 616A28-SS

Specifications

Bowl Capacity ..... 4.0 Ounces

Filter Rating ..... 40 Micron

Sump Capacity ..... 1.7 Ounce

Port Threads ..... 1/2 Inch

Pressure & Temperature Ratings –
Manual Twist Drain (D) ..... 0 to 300 PSIG (0 to 20.7 bar)
0°F to 180°F (-18°C to 82°C)
Manual Twist Drain (W) ..... 0 to 250 PSIG (0 to 17.2 bar)
0°F to 150°F (-18°C to 66°C)
Automatic Float Drain ..... 10 to 175 PSIG (0 to 12 bar)
32°F to 150°F (0°C to 66°C)

Note: Air must be dry enough to avoid ice formation at temperatures below 32°F (0°C)

Weight ..... 1.9 lb. (0.85 kg)

Materials of Construction

Body ..... 316 Stainless Steel

Bowls ..... 316 Stainless Steel

Deflector ..... Acetal

Drain ..... 316 Stainless Steel

Element Holder ..... Acetal

Filter Element ..... Polyethylene

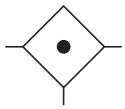
Seals ..... Fluorocarbon

Sight Gauge ..... Isoplast

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B

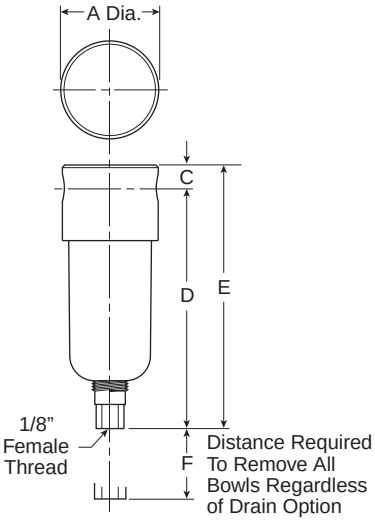
PF501 Coalescing Filter – Miniature





Features

- Stainless steel construction handles most corrosive environments.
- Meets NACE specifications MR-01-75/ISO 15156.
- 1/8" female threaded drain.
- High Flow: 1/4" - 16 SCFM§



Port Size	NPT	BSPP
	Manual Twist Drain	Manual Twist Drain
1/4"	**PF501-02DHSS**	PF501G02DHSS

Standard part numbers shown bold. For other models refer to ordering information below.

SCFM = Standard cubic feet per minute at 90 PSIG inlet and 5 PSIG pressure drop.

PF501 Coalescing Filter Dimensions		
A 1.56 (40)	**C** 0.31 (8)	**D** 3.69 (94)
E 4.00 (102)	**F** 1.58 (40)	

inches
(mm)

Ordering Information

PF501	-	02	D	H		SS

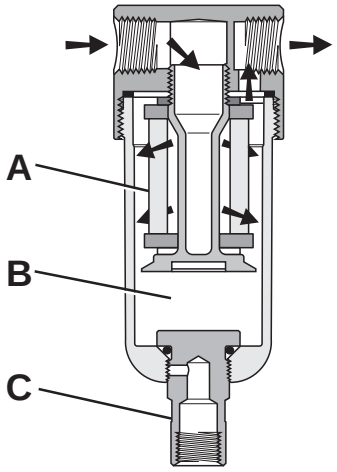
Port Type	Port Size	Bowl	Element	Options	Material
- NPT G BSPP	**02 1/4 Inch**	**D Metal Bowl without Sight Gauge**	**H .3 Micron**	**Blank Manual Twist Drain** R Automatic Pulse Drain	**SS Stainless Steel**

BOLD ITEMS ARE MOST POPULAR.

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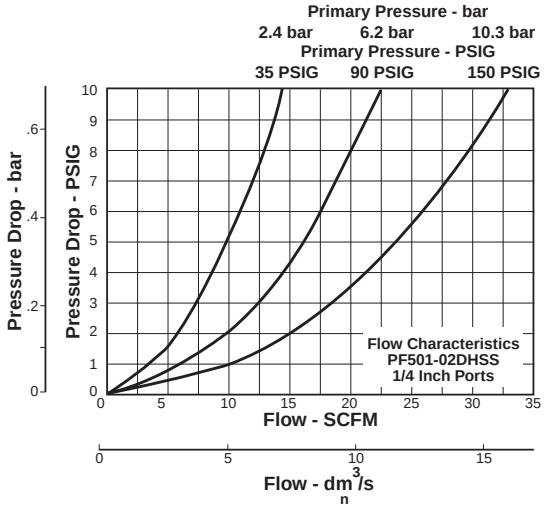
B

Operation



The contaminated air enters the element interior and is forced through a thick membrane **(A)** of "borosilicate" glass fibers coated with epoxy. Flow then passes through the element, and at this stage 99.97% of the sub micronic particles have been removed from the air stream. The tiny droplets coalesce together and are collected from the filter element by the outer drain layer.
The clean, filtered air now passes through and out into the pneumatic system. The air line coalescing filter removes liquid aerosols and sub-micron particulate matter.
Collected liquids and particles in the "quiet zone" **(B)** should be drained before their level reaches a height where they would be reentrained in the flowing air. This can be accomplished by unscrewing the drain valve **(C)** slightly until the liquid begins to drain.

Technical Information



PF501 Filter Kits & Accessories

Drain Kits –
Automatic Pulse Drain RK504SY-SS
Manual Twist Drain –
Small (Old) SA600Y7-1SS
Large (New) SAP05481

Filter Element Kits –
0.3 Micron EKF501H

Pipe Nipple –
1/4" 316 Stainless Steel 616Y28-SS

Specifications

Bowl Capacity ..... 1.0 Ounces
Filter Rating ..... 0.3 Micron
Port Threads ..... 1/4 Inch

Pressure & Temperature Ratings –
Manual Twist Drain ..... 0 to 300 PSIG (0 to 20.7 bar)
0°F to 180°F (-18°C to 82°C)
Auto Pulse Drain ..... 10 to 175 PSIG (0 to 12 bar)
32°F to 150°F (0°C to 66°C)

Note: Air must be dry enough to avoid ice formation at temperatures below 32°F (0°C)

Sump Capacity ..... 0.4 Ounce
Weight ..... 0.6 lb. (0.27 kg)

Materials of Construction

Body ..... 316 Stainless Steel
Bowls ..... 316 Stainless Steel
Drain ..... 316 Stainless Steel
Element Holder ..... Acetal
Filter Element ..... Borosilicate Fiber
Seals ..... Fluorocarbon

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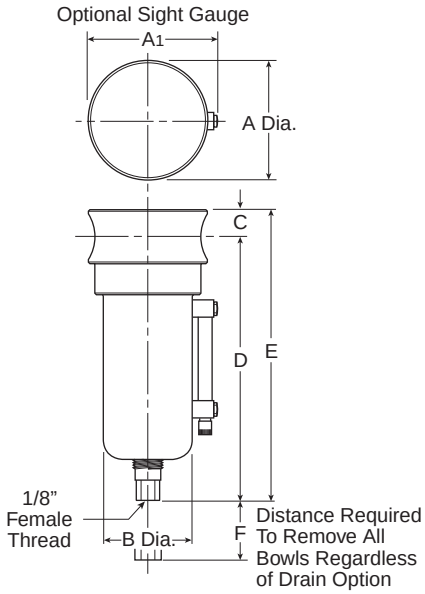
B

PF11 Coalescing Filter – Standard



Features

- Stainless steel construction handles most corrosive environments.
- Meets NACE specifications MR-01-75/ISO 15156.
- 1/8" female threaded drain.
- High Flow: 1/2" - 45 SCFM§



Port Size	NPT		BSPP	
	Manual Twist Drain	Automatic Float Drain	Manual Twist Drain	Automatic Float Drain
1/2"	Metal Bowl With Sight Gauge			
	PF11-04WJSS	**PF11-04WJRSS**	PF11G04WJSS	PF11G04WJRSS

Standard part numbers shown bold. For other models refer to ordering information below.

SCFM = Standard cubic feet per minute at 90 PSIG inlet and 5 PSIG pressure drop.

PF11 Coalescing Filter Dimensions		
A 2.38 (60)	**A1** 2.50 (64)	**B** 1.75 (44)
C 0.56 (14)	**D** 5.00 (127)	**E** 5.56 (141)
F 2.12 (54)		

inches (mm)

Ordering Information

PF11	-	04	W	J		SS

Port Type
- **- NPT**
- G BSPP

Port Size
- **04 1/2 Inch**

Bowl
- D Metal Bowl without Sight Gauge
- **W Metal Bowl with Sight Gauge**

Element
- **J .01 Micron**

Options
- **Blank Manual Twist Drain**
- R Automatic Float Drain

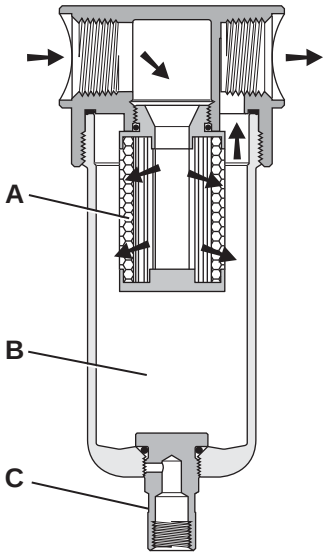
Material
- **SS Stainless Steel**

BOLD ITEMS ARE MOST POPULAR.

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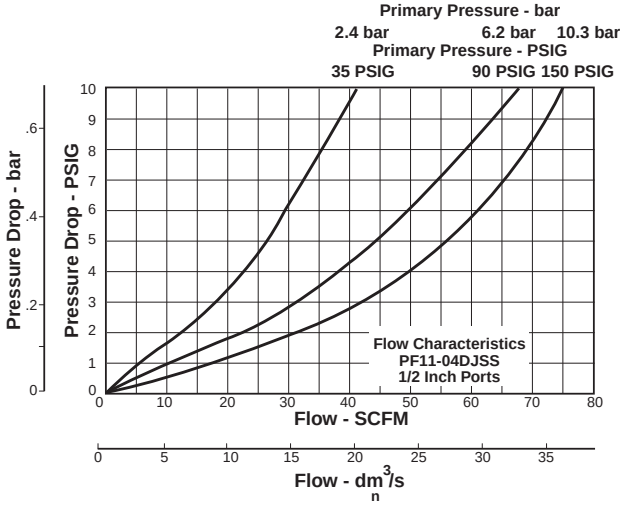
B

Operation



The contaminated air enters the element interior and is forced through a thick membrane **(A)** of "borosilicate" glass fibers coated with epoxy. Flow then passes through the element, and at this stage 99.97% of the sub micronic particles have been removed from the air stream. The tiny droplets coalesce together and are collected from the filter element by the outer drain layer.
The clean, filtered air now passes through and out into the pneumatic system. The air line coalescing filter removes liquid aerosols and sub-micron particulate matter.
Collected liquids and particles in the "quiet zone" **(B)** should be drained before their level reaches a height where they would be reentrained in the flowing air. This can be accomplished by unscrewing the drain valve **(C)** slightly until the liquid begins to drain.

Technical Information



PF11 Filter Kits & Accessories

Drain Kits –
Automatic Float Drain SA10MDSS
Filter Element Kits –
0.01 Micron EKF71

Pipe Nipple –
1/2" 316 Stainless Steel 616A28-SS

Specifications

Bowl Capacity ..... 4.0 Ounces

Filter Rating ..... 0.01 Micron

Sump Capacity ..... 1.7 Ounce

Port Threads ..... 1/2 Inch

Pressure & Temperature Ratings –
Manual Twist Drain ..... 0 to 300 PSIG (0 to 20.7 bar)
0°F to 180°F (-18°C to 82°C)

Manual Twist Drain (W) ..... 0 to 250 PSIG (0 to 17.2 bar)
0°F to 150°F (-18°C to 66°C)

Automatic Float Drain ..... 10 to 175 PSIG (0 to 12 bar)
32°F to 150°F (0°C to 66°C)

Note: Air must be dry enough to avoid ice formation at temperatures below 32°F (0°C)

Weight ..... 1.9 lb. (0.85 kg)

Materials of Construction

Body ..... 316 Stainless Steel

Bowls ..... 316 Stainless Steel

Drain ..... 316 Stainless Steel

Element Holder ..... Acetal

Filter Element ..... Borosilicate Fiber

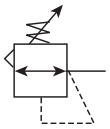
Seals ..... Fluorocarbon

Sight Gauge ..... Isoplast

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B

PR354, PR364 Regulator – Miniature



Features

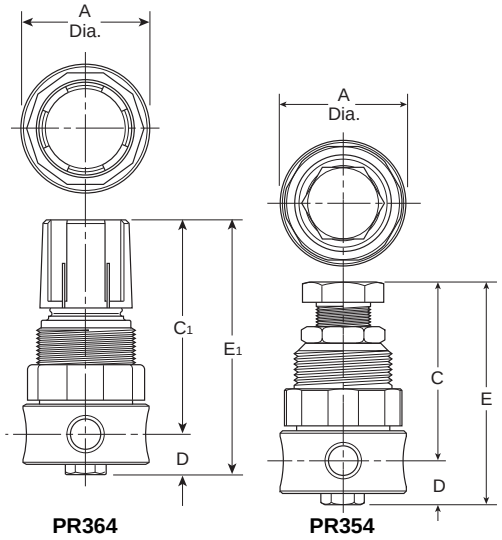
- Stainless steel construction handles most corrosive environments.
- Large diaphragm to valve area ratio for precise regulation and high flow capacity.
- Meets NACE specifications MR-01-75/ISO 15156.
- High Flow: 1/4" – 12 SCFM§



PR364



PR354



PR364 **PR354**

Series	Adjustment Type	Port Size	NPT	BSPP
PR364	Knob	1/4"	**PR364-02CSS**	PR364G02CSS
PR354	All Metal	1/4"	**PR354-02CSS**	PR354G02CSS

Standard part numbers shown bold. For other models refer to ordering information below.

§ SCFM = Standard cubic feet per minute at 100 PSIG inlet, 75 PSIG no flow secondary setting and 15 PSIG pressure drop.

⚠ WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

PR354, PR364 Regulator Dimensions		
A 1.56 (40)	**C** 2.00 (51)	**C1** 2.56 (65)
D 0.50 (13)	**E** 2.50 (64)	**E1** 3.06 (78)

inches (mm)
NOTE: 1.25 Dia. (32mm) hole required for panel mounting.

Ordering Information

PR364	-	02	C		SS

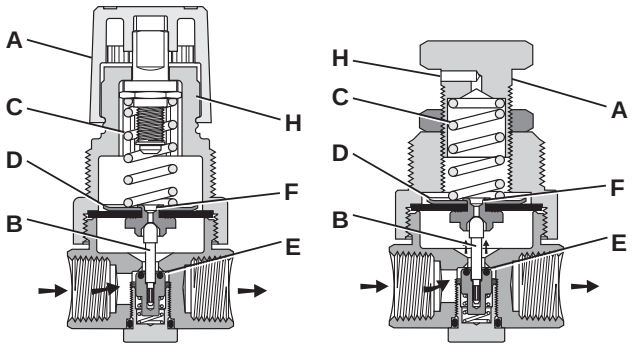
Series	Port Type	Port Size	Pressure Range	Options	Material
PR354 Stainless Steel **PR364 Standard Knob**	**- NPT** G BSPP	**02 1/4 Inch**	A 0-25 PSIG (0-1.7 bar) B 0-60 PSIG (0-4.1 bar) **C 0-125 PSIG (0-8.5 bar)**	**Blank Relieving** K Non-Relieving P Panel Mount Nut	**SS Stainless Steel**

BOLD ITEMS ARE MOST POPULAR.

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B

Operation



PR364 **PR354**

With the adjusting knob **(A)** turned fully counter-clockwise (no spring load), and pressure supplied to the regulator inlet port, the valve poppet assembly **(B)** is closed. Turning the adjusting knob clockwise applies a load to control spring **(C)**. This load causes the diaphragm **(D)** and the valve poppet assembly **(B)** to move downward allowing flow across the seat area **(E)** created between the poppet assembly and the seat. Pressure in the downstream line is sensed below the diaphragm **(D)** and offsets the load of spring **(C)**. As downstream pressure rises, poppet assembly **(B)** and diaphragm **(D)** move upward until the area **(E)** is closed and the load of the spring **(C)** and pressure under diaphragm **(D)** are in balance. A reduced outlet pressure has now been obtained, depending on spring load. Creating a demand downstream, such as opening a valve, results in a reduced pressure under the diaphragm **(D)**. The load of control spring **(C)** now causes the poppet assembly to move downward opening seat area **(E)** allowing air to flow to meet the downstream demand. The flow of downstream air is metered by the amount of opening **(E)**.

Should downstream pressure exceed the desired regulated pressure, the excess pressure will cause the diaphragm **(D)** to move upward against control spring **(C)**, open vent hole **(F)**, and vent the excess pressure to atmosphere through the hole in the bonnet **(H)**. (This occurs in the relieving type regulator only.)

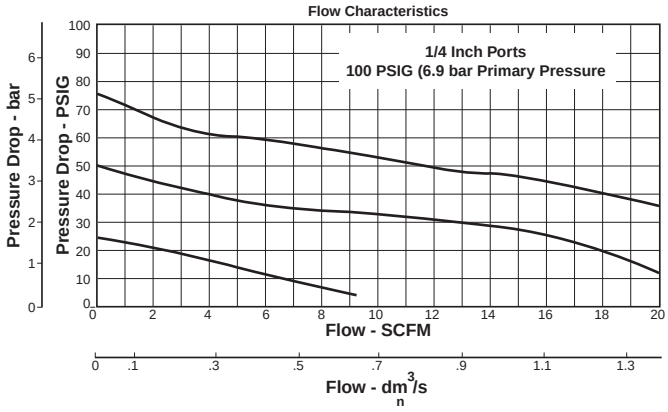
Technical Information

CAUTION:

REGULATOR PRESSURE ADJUSTMENT –

The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.



PR354, PR364 Regulator Kits & Accessories

R354 Bonnet Kit CKR354YSS

PR364 Bonnet Kit (Knob Included) CKR364YSS

Gauge (Stainless) –
160 PSIG (0 to 1100 kPa), 1-1/2" Face K4515N14160SS

Panel Mount Bracket (Stainless) 161X57-SS

Panel Mount Nut –
Stainless R05X51-SS
Plastic R05X51-P

Pipe Nipple –
1/4" 316 Stainless Steel 616Y28-SS

Service Kit –
Relieving RKR364YSS
Non-Relieving RKR364KYSS

Springs –
0-25 PSIG Range SPR-375-2-SS
0-60 PSIG Range SPR-376-1-SS
0-125 PSIG Range SPR-377-1-SS

Specifications

Gauge Port ..... 1/4 Inch

Operation ..... Fluorocarbon Diaphragm

Port Threads ..... 1/4 Inch

Pressure & Temperature Ratings –
PR354 ..... 300 PSIG Max (20.7 bar)
0°F to 180°F (-18°C to 82°C)
PR364 ..... 300 PSIG Max (20.7 bar)
0°F to 150°F (-18°C to 66°C)

Note: Air must be dry enough to avoid ice formation at temperatures below 32°F (0°C)

Weight ..... 0.5 lb. (0.23 kg)

Materials of Construction

Adjustment Mechanism / Springs ..... 316 Stainless Steel

Adjusting Knob (PR354) ..... 316 Stainless Steel

Adjusting Knob (PR364) ..... Polypropylene

Body ..... 316 Stainless Steel

Bonnet (PR354) ..... 316 Stainless Steel

Bonnet (PR364) ..... Acetal

Bottom Plug ..... 316 Stainless Steel

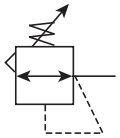
Poppet ..... 316 Stainless Steel

Seals ..... Fluorocarbon

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B

PR10, PR11 Regulator – Standard



Features

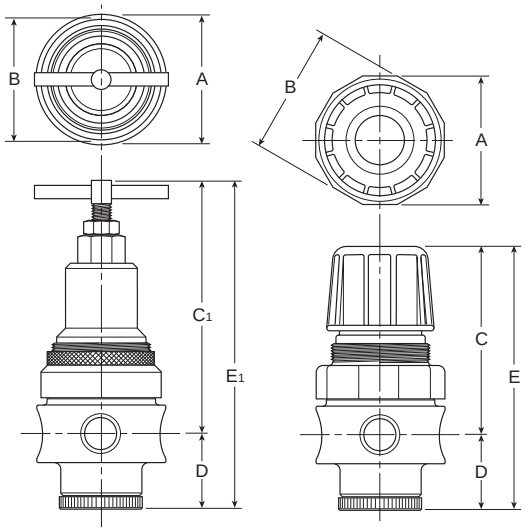
- Stainless steel construction handles most corrosive environments.
- Large diaphragm to valve area ratio for precise regulation and high flow capacity.
- Meets NACE specifications MR-01-75/ISO 15156.
- Low temperature version available.
- High Flow: 1/2" – 80 SCFM§



PR11



PR10



PR11 **PR10**

Series	Adjustment Type	Port Size	NPT	BSPP
PR10	Knob	1/2"	**PR10-04CSS**	PR10G04CSS
PR11	T-Handle	1/2"	**PR11-04CSS**	PR11G04CSS

Standard part numbers shown bold. For other models refer to ordering information below.

§ SCFM = Standard cubic feet per minute at 100 PSIG inlet, 75 PSIG no flow secondary setting and 15 PSIG pressure drop.

⚠ WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

PR10, PR11 Regulator Dimensions		
A 2.34 (60)	**B** 2.43 (62)	**C** 3.59 (91)
C_1 4.70 (119)	**D** 1.38 (35)	**E** 4.97 (126)
E_1 6.08 (154)		

inches (mm)
NOTE: 1.75 Dia. (44mm) hole required for panel mounting.

Ordering Information

PR10	-	04	C		SS

Series
- **PR10 Standard Knob**
- **PR11 Stainless Steel Tee Handle**

Port Type
- **- NPT**
- G BSPP

Port Size
- **04 1/2 Inch**

Pressure Range
- B 0-60 PSIG (0-4.1 bar)
- **C 0-125 PSIG (0-8.5 bar)**
- D 0-250 PSIG (0-17 bar)

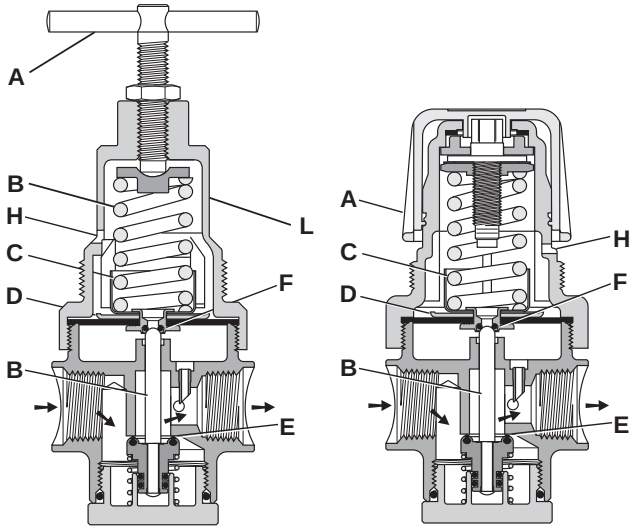
Options
- **Blank Relieving**
- K Non-Relieving
- L Low Temp.
- P Panel Mount Nut

Material
- **SS Stainless Steel**

BOLD ITEMS ARE MOST POPULAR.

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Operation



With the adjusting knob / T-Handle **(A)** turned fully counter-clockwise (no spring load), and pressure supplied to the regulator inlet port, the valve poppet assembly **(B)** is closed. Turning the adjusting knob clockwise applies a load to control spring **(C)**. This load causes the diaphragm **(D)** and the valve poppet assembly **(B)** to move downward allowing flow across the seat area **(E)** created between the poppet assembly and the seat. Pressure in the downstream line is sensed below the diaphragm **(D)** and offsets the load of spring **(C)**. As downstream pressure rises, poppet assembly **(B)** and diaphragm **(D)** move upward until the area **(E)** is closed and the load of the spring **(C)** and pressure under diaphragm **(D)** are in balance. A reduced outlet pressure has now been obtained, depending on spring load. Creating a demand downstream, such as opening a valve, results in a reduced pressure under the diaphragm **(D)**. The load of control spring **(C)** now causes the poppet assembly to move downward opening seat area **(E)** allowing air to flow to meet the downstream demand. The flow of downstream air is metered by the amount of opening **(E)**.

Should downstream pressure exceed the desired regulated pressure, the excess pressure will cause the diaphragm **(D)** to move upward against control spring **(C)**, open vent hole **(F)**, and vent the excess pressure to atmosphere through the hole in the bonnet **(H)**. (This occurs in the relieving type regulator only.)

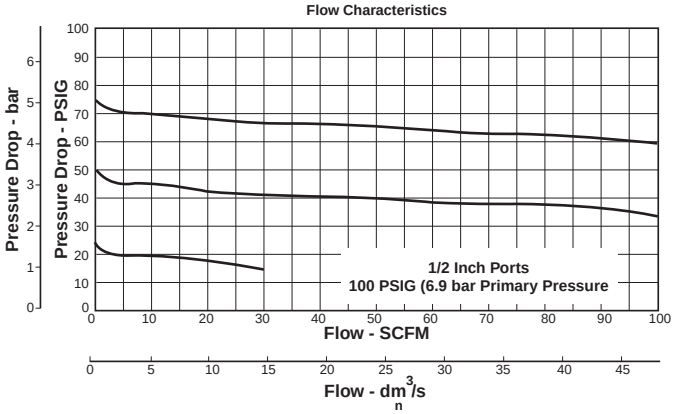
Technical Information

CAUTION:

REGULATOR PRESSURE ADJUSTMENT –

The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.



PR10, PR11 Regulator Kits & Accessories

PR10 Bonnet Kit (Knob Included) CKR10YSS
PR11 Bonnet Kit CKR11YSS
Gauge (Stainless) –
160 PSIG (0 to 1100 kPa), 2" Face K4520N14160SS
Panel Mount Bracket (Stainless) 161X57-SS
Panel Mount Nut –
Stainless R10X51-SS
Plastic R10X51-P
Pipe Nipple –
1/2" 316 Stainless Steel 616A28-SS
Service Kit –
Relieving RKR10YSS
Non-Relieving RKR10KYSS
Springs –
0-60 PSIG Range SPR-388-1-SS
0-125 PSIG Range SPR-389-1-SS
0-250 PSIG Range SPR-390-1-SS

Specifications

Gauge Port ..... 1/4 Inch
Operation ..... Fluorocarbon Diaphragm
Port Threads ..... 1/2 Inch
Pressure & Temperature Ratings –
PR10 ..... 300 PSIG Max (20.7 bar)
0°F to 150°F (-18°C to 66°C)
PR11 ..... 300 PSIG Max (20.7 bar)
0°F to 180°F (-18°C to 82°C)
Option "L" Minimum Operating Temperature† ..... -40° C/F
Note: Air must be dry enough to avoid ice formation at temperatures below 32°F (0°C)
Weight ..... 1.79 lb. (0.81 kg)

Materials of Construction

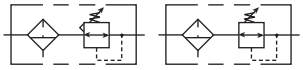
Adjustment Mechanism / Springs ..... 316 Stainless Steel
Body ..... 316 Stainless Steel
Bonnet / Tee Handle (PR11) ..... 316 Stainless Steel
Bonnet / Knob (PR10) ..... Acetal
Bottom Plug ..... 316 Stainless Steel
Poppet ..... 316 Stainless Steel
Seals ..... Fluorocarbon

† **Note:** "Low Temperature" option is intended for applications where the ambient temperature may be down to -40° C/F. Air supply must be free of moisture to prevent ice formation and malfunction of units. These units contain EPDM seals. Make sure any oils in the airstream are compatible.

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B

PB548, PB558 Filter / Regulator – Miniature

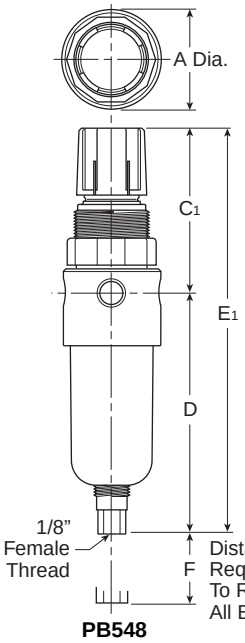




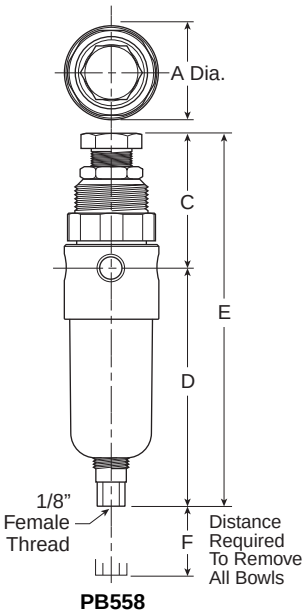
PB548 **PB558**

Features

- Stainless steel construction handles most corrosive environments.
- Large diaphragm to valve area ratio for precise regulation and high flow capacity.
- 1/8" female threaded drain.
- Meets NACE specifications MR-01-75/ISO 15156.
- High Flow: 1/4" – 12 SCFM§



PB548



PB558

Series	Adjustment Type	Port Size	NPT	BSPP
PB548	Knob	1/4"	**PB548-02DHCSS**	PB548G02DHCSS
PB558	All Metal	1/4"	**PB558-02DHCSS**	PB558G02DHCSS

Standard part numbers shown bold. For other models refer to ordering information below.

§ SCFM = Standard cubic feet per minute at 100 PSIG inlet, 75 PSIG no flow secondary setting and 15 PSIG pressure drop.

⚠ WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

PB548, PB558 Filter / Regulator Dimensions		
A 1.56 (40)	**C** 2.17 (55)	**C1** 2.63 (67)
D 3.63 (92)	**E** 5.80 (147)	**E1** 6.26 (159)
F 1.58 (40)		

inches (mm)
NOTE: 1.25 Dia. (32mm) hole required for panel mounting.

Ordering Information

PB548	-	02	D	H	C		SS

Series
- **PB548 Standard Knob**
- **PB558 Stainless Steel**

Port Type
- **- NPT**
- G BSPP

Port Size
- **02 1/4 Inch**

Bowl
- **D Metal Bowl without Sight Gauge**

Element
- **H 20 Micron**
- G 5 Micron

Reduced Pressure Range
- A 0-25 PSIG (0-1.7 bar)
- B 0-60 PSIG (0-4.1 bar)
- **C 0-125 PSIG (0-8.5 bar)**

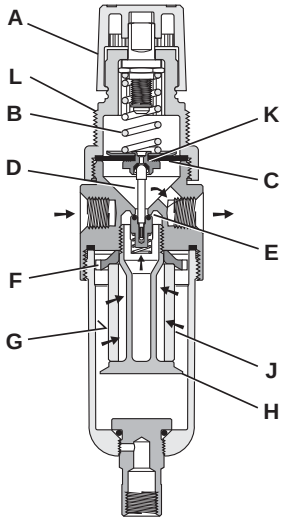
Options
- **Blank Relieving**
- K Non-Relieving
- R Automatic Pulse Drain
- P Panel Mount Nut

Material
- **SS Stainless Steel**

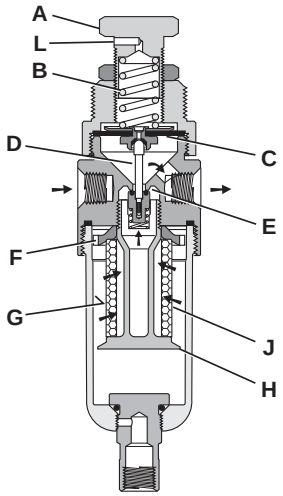
BOLD ITEMS ARE MOST POPULAR.

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Operation



PB548



PB558

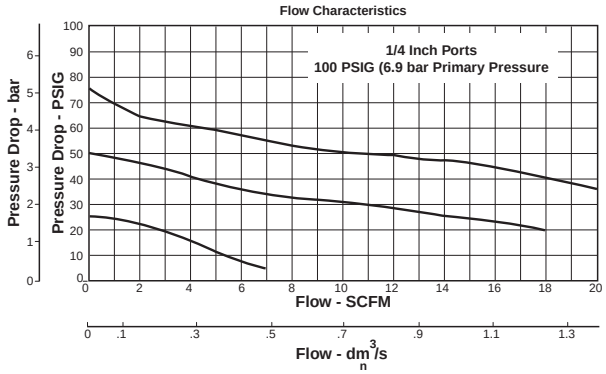
Turning the adjusting knob **(A)** clockwise applies a load to control spring **(B)** which forces diaphragm **(C)** and valve poppet assembly **(D)** to move downward allowing filtered air to flow through the seat area **(E)** created between the poppet assembly and the seat. **"First stage filtration".** Air pressure supplied to the inlet port is directed through deflector plate **(F)** causing a swirling centrifugal action forcing liquids and coarse particles to the inner bowl wall **(G)** and down below the lower baffle **(H)** to the quiet zone. After liquids and large particles are removed in the first stage of filtration **"second stage filtration"** occurs as air flows through element **(J)** where smaller particles are filtered out and retained. The air flow now passes through seat area **(E)** to the outlet port of the unit. Pressure in the downstream line is sensed below the diaphragm **(C)** and offsets the load of spring **(B)**. When downstream pressure reaches the set-point, poppet valve assembly **(D)** and diaphragm **(C)** move upward closing seat area **(E)**. Should downstream pressure exceed the desired regulated pressure, the excess pressure will cause the diaphragm **(C)** to move upward opening vent hole **(K)** venting the excess pressure to atmosphere through the hole in the bonnet **(L)**. (This occurs in the standard relieving type filter/regulators only.)

Technical Information

CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.



PB548, PB558 Regulator Kits & Accessories

PB558 Bonnet Kit (Knob Included) CKR354YSS
PB548 Bonnet Kit (Knob Included) CKR364YSS
Drain Kit –
Automatic Pulse Drain RK504SY-SS
Manual Twist Drain–
Small (Old) SA600Y7-1SS
Large (New) SAP05481
Filter Element Kits –
Particulate (5 Micron) EK504VY
Particulate (20 Micron) EK504Y
Gauge (Stainless) –
160 PSIG (0 to 1100 kPa), 1-1/2" Face K4515N14160SS
Panel Mount Bracket (Stainless) 161X57-SS
Panel Mount Nut –
Stainless R05X51-SS
Plastic R05X51-P
Pipe Nipple –
1/4" 316 Stainless Steel 616Y28-SS
Service Kit –
Relieving RK549YSS
Non-Relieving RK548YSS
Springs –
0-25 PSIG Range SPR-375-2-SS
0-60 PSIG Range SPR-376-1-SS
0-125 PSIG Range SPR-377-1-SS

Specifications

Bowl Capacity ..... 1.0 Ounces
Filter Rating ..... 20 Micron
Gauge Port ..... 1/4 Inch
Operation ..... Fluorocarbon Diaphragm
Port Threads ..... 1/4 Inch
Pressure & Temperature Ratings –
PB548 ..... 300 PSIG Max. (20.7 bar)
0°F to 150°F (-18°C to 82°C)
PB558 ..... 300 PSIG Max. (20.7 bar)
0°F to 180°F (-18°C to 82°C)
Auto Pulse Drain ..... 10 to 175 PSIG (0 to 12 bar)
32°F to 150°F (0°C to 66°C)
Note: Air must be dry enough to avoid ice formation at temperatures below 32°F (2°C)
Sump Capacity ..... 0.4 Ounce
Weight ..... 0.6 lb. (0.27 kg)

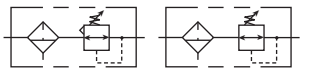
Materials of Construction

Adjustment Mechanism / Springs ..... 316 Stainless Steel
Body ..... 316 Stainless Steel
Bonnet (PB548) ..... Acetal
Bonnet (PB558) ..... 316 Stainless Steel
Bottom Plug ..... 316 Stainless Steel
Knob (PB548) ..... Polypropylene
Knob (PB558) ..... 316 Stainless Steel
Poppet ..... 316 Stainless Steel
Seals ..... Fluorocarbon

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B

PB11, PB12 Filter / Regulator – Standard



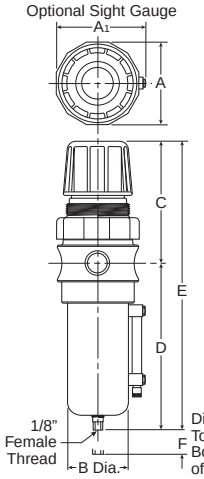




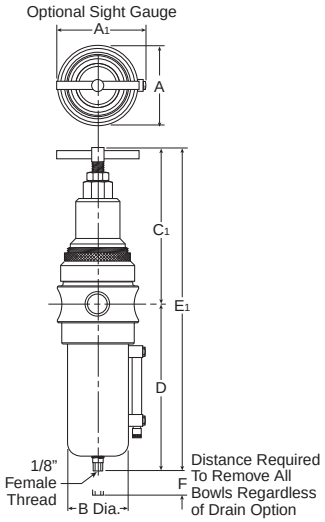
PB11 **PB12**

Features

- Stainless steel construction handles most corrosive environments.
- Large diaphragm to valve area ratio for precise regulation and high flow capacity.
- 1/8" female threaded drain.
- Meets NACE specifications MR-01-75/ISO-15156.
- Low temperature version available.
- High Flow: 1/2" – 72 SCFM§



PB11



PB12

Series	Adjustment Type	Port Size	NPT		BSPP	
			Manual Twist Drain	Automatic Float Drain	Manual Twist Drain	Automatic Float Drain
			Metal Bowl with Sight Gauge			
PB11	Knob	1/2"	**PB11-04WJCSS**	**PB11-04WJCRSS**	PB11G04WJCSS	PB11G04WJCRSS
PB12	Tee-Handle	1/2"	**PB12-04WJCSS**	**PB12-04WJCRSS**	PB12G04WJCSS	PB12G04WJCRSS

Standard part numbers shown bold. For other models refer to ordering information below.

§ SCFM = Standard cubic feet per minute at 100 PSIG inlet, 90 PSIG no flow secondary setting and 15 PSIG pressure drop.

⚠ WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

PB11, PB12 Filter / Regulator Dimensions		
A 2.34 (60)	**A1** 2.50 (64)	**B** 1.75 (44)
C 3.59 (91)	**C1** 4.70 (119)	**D** 5.00 (127)
E 8.59 (218)	**E1** 9.70 (246)	**F** 2.12 (54)

inches (mm)
NOTE: 1.75 Dia. (44mm) hole required for panel mounting.

Ordering Information

PB11	-	04	W	J	C	—	SS

Series
PB11 Standard Knob
PB12 Stainless Steel

Port Type
- NPT
G BSPP

Port Size
04 1/2 Inch

Bowl
D Metal Bowl without Sight Gauge
W Metal Bowl with Sight Gauge

Element
J 40 Micron
G 5 Micron

Reduced Pressure Range
B 0-60 PSIG (0-4.1 bar)
C 0-125 PSIG (0-8.5 bar)
D 0-250 PSIG (0-17 bar)

Options
Blank Relieving
K Non-Relieving
P Panel Mount Nut
R Automatic Float Drain
L* Low Temp.

* Manual Drain and Without Sight Gauge Only.

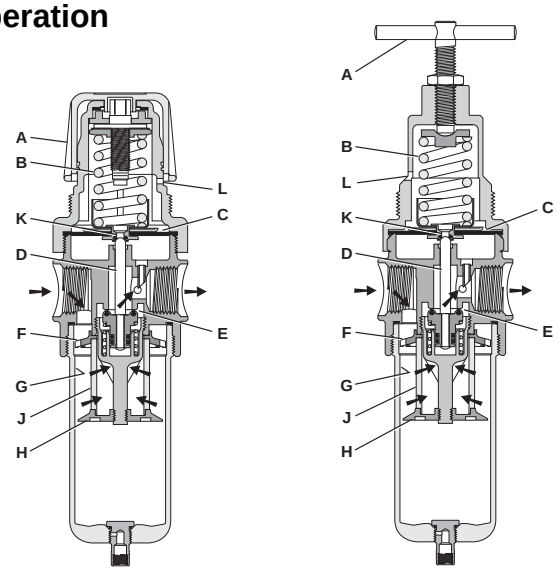
Material
SS Stainless Steel

BOLD ITEMS ARE MOST POPULAR.

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B

Operation



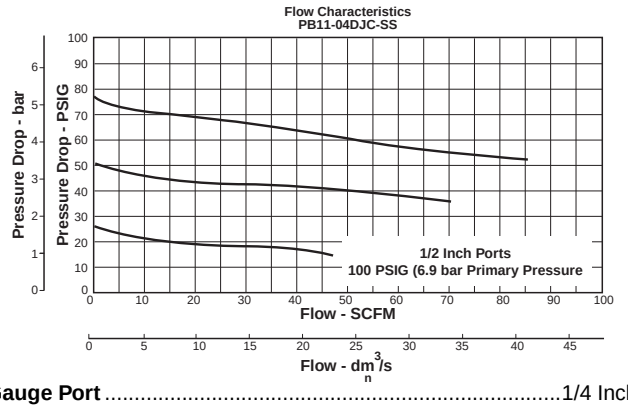
Turning the adjusting knob / T-Handle **(A)** clockwise applies a load to control spring **(B)** which forces diaphragm **(C)** and valve poppet assembly **(D)** to move downward allowing filtered air to flow through the seat area **(E)** created between the poppet assembly and the seat. **"First stage filtration".**
Air pressure supplied to the inlet port is directed through deflector plate **(F)** causing a swirling centrifugal action forcing liquids and coarse particles to the inner bowl wall **(G)** and down below the lower baffle **(H)** to the quiet zone. After liquids and large particles are removed in the first stage of filtration **"second stage filtration"** occurs as air flows through element **(J)** where smaller particles are filtered out and retained. The air flow now passes through seat area **(E)** to the outlet port of the unit. Pressure in the downstream line is sensed below the diaphragm **(C)** and offsets the load of spring **(B)**. When downstream pressure reaches the set-point, poppet valve assembly **(D)** and diaphragm **(C)** move upward closing seat area **(E)**. Should downstream pressure exceed the desired regulated pressure, the excess pressure will cause the diaphragm **(C)** to move upward opening vent hole **(K)** venting the excess pressure to atmosphere through the hole in the bonnet **(L)**. (This occurs in the standard relieving type filter/regulators only.)

Technical Information

CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.



PB11, PB12 Regulator Kits & Accessories

PB11 Bonnet Kit (Knob Included) CKR10YSS
PB12 Bonnet Kit CKR11YSS
Drain Kit –
Automatic Float Drain SA10MDSS
Manual Twist Drain–
Small (Old) SA600Y7-1SS
Large (New) SAP05481
Filter Element Kits –
Particulate (40 Micron) EKF10Y
Particulate (5 Micron) EKF10VY
Gauge (Stainless) –
160 PSIG (0 to 1100 kPa), 2" Face K4520N14160SS
Panel Mount Bracket (Stainless) R10Y57-SS
Panel Mount Nut –
Stainless R10X51-SS
Plastic R10X51-P
Pipe Nipple –
1/2" 316 Stainless Steel 616A28-SS
Service Kit –
Relieving RKR10YSS
Non-Relieving RKR10KYSS
Springs –
0-60 PSIG Range SPR-388-1-SS
0-125 PSIG Range SPR-389-1-SS
0-250 PSIG Range SPR-390-1-SS

Specifications

Bowl Capacity ..... 4.0 Ounces
Filter Rating ..... 40 Micron
Gauge Port ..... 1/4 Inch
Operation ..... Fluorocarbon Diaphragm
Port Threads ..... 1/2 Inch
Pressure & Temperature Ratings –
PB11 (Metal Bowl D or W) ..... 300 PSIG Max (20.7 bar)
0°F to 150°F (-18°C to 66°C)
PB12 (Metal Bowl D) ..... 300 PSIG Max (20.7 bar)
0°F to 180°F (-18°C to 82°C)
PB12 (Metal Bowl W) ..... 300 PSIG Max (20.7 bar)
0°F to 150°F (-18°C to 66°C)
Automatic Float Drain ..... 15 to 175 PSIG (1 to 12 bar)
32°F to 150°F (0°C to 66°C)
Option "L" Minimum Operating Temperature† ..... -40° C/F

Note: Air must be dry enough to avoid ice formation at temperatures below 32°F (0°C).

Sump Capacity ..... 1.7 Ounce
Weight ..... 2.42 lb. (1.09 kg)

Materials of Construction

Adjustment Mechanism / Springs ..... 316 Stainless Steel
Body ..... 316 Stainless Steel
Bonnet / Knob (PB11) ..... Acetal
Bonnet / Tee Handle (PB12) ..... 316 Stainless Steel
Bottom Plug ..... 316 Stainless Steel
Poppet ..... 316 Stainless Steel
Seals ..... Fluorocarbon
Sight Gauge ..... Isoplast

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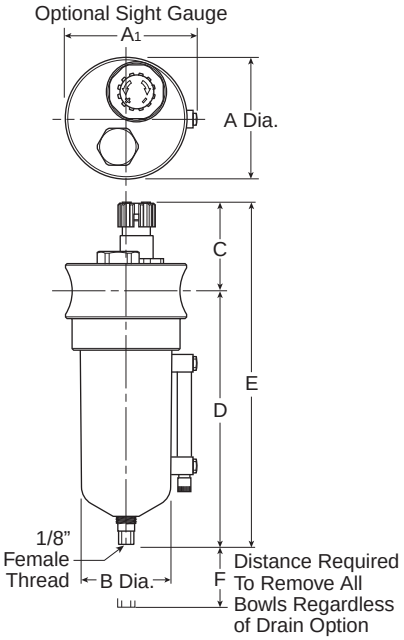
B

PL10 Lubricator – Standard



Features

- Stainless Steel Construction Handles Most Corrosive Environments
- 1/8" Female Threaded Drain
- Fillable Under Pressure
- Meets NACE Specifications MR-01-75/ISO 15156
- High Flow: 1/2" - 100 SCFM§



Port Size	NPT	BSPP
	Manual Twist Drain	**Manual Twist Drain**
1/2"	**Metal Bowl With Sight Gauge**	
	PL10-04WSS	PL10G04WSS

Standard part numbers shown bold. For other models refer to ordering information below.

§ SCFM = Standard cubic feet per minute at 90 PSIG inlet and 5 PSIG pressure drop.

PL10 Lubricator Dimensions		
A 2.36 (60)	**A1** 2.52 (64)	**B** 1.73 (44)
C 2.17 (55)	**D** 5.46 (139)	**E** 7.62 (194)
F 3.50 (89)		

inches (mm)

Ordering Information

PL10	-	04	W	SS

Port Type
- NPT
G BSPP

Port Size
04 1/2 Inch

Bowl
D Metal Bowl without Sight Gauge
W Metal Bowl with Sight Gauge

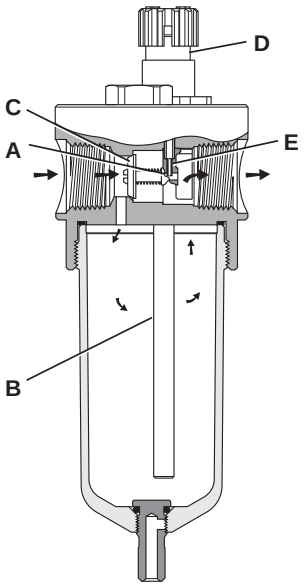
Material
SS Stainless Steel

BOLD ITEMS ARE MOST POPULAR.

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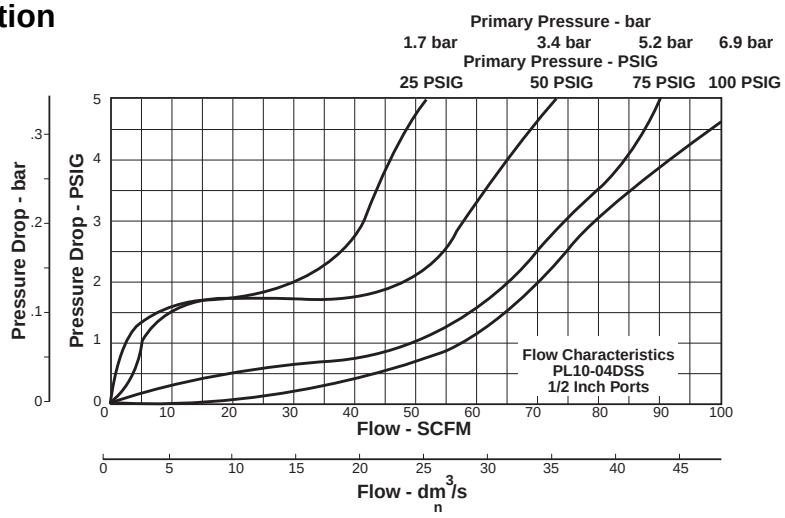
B

Operation



Air flowing through the unit goes through two paths. At low flow rates the majority of the air flows through the Venturi section **(A)**. The rest of the air opens the check valve **(C)**. The velocity of the air flowing through the Venturi section **(A)** creates a pressure drop. This lower pressure allows the oil to be forced from the reservoir through the pickup tube **(B)** and travels up to the metering screw **(D)**. The rate of oil delivery is then controlled by adjusting the metering screw **(D)**. Oil flows past the metering screw **(D)** and forms a drop in the nozzle tube **(E)**. As the oil drops through the dome **(F)** and back into the Venturi section **(A)**, it is broken up into fine particles. It is then mixed with the air flowing past the check valve **(C)** and is carried downstream. As the air flow increases the check valve **(C)** will open more fully. This additional flow will assure that the oil delivery rate will increase linearly with the increase of air flow.

Technical Information



PL10 Filter Kits & Accessories

Drain Kit –
Manual Twist Drain –
Small (Old) SA600Y7-1SS
Large (New) SAP05481

Pipe Nipple –
1/2" 316 Stainless Steel 616A28-SS

Sight Dome Kit –
(Old)..... RKL10SS
(New)..... PS740N

Specifications

Bowl Capacity..... 4.0 Ounces
Port Threads ..... 1/2 Inch
Pressure & Temperature Ratings –
Metal Bowl (D)..... 0 to 300 PSIG (0 to 20.7 bar)
0°F to 150°F (-18°C to 66°C)
Metal Bowl (W) ..... 0 to 250 PSIG (0 to 17.2 bar)
0°F to 150°F (-18°C to 66°C)
Note: Air must be dry enough to avoid ice formation at temperatures below 32°F (0°C).

Weight ..... 1.9 lb. (0.85 kg)

Materials of Construction

Body ..... 316 Stainless Steel
Bowl ..... 316 Stainless Steel
Dip Tube ..... 316 Stainless Steel
Drain ..... 316 Stainless Steel
Fill Plug ..... 316 Stainless Steel
Seals ..... Fluorocarbon
Sight Dome ..... Nylon
Sight Gauge ..... Isoplast

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Notes

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Precision Regulators

Air Preparation Units

Section C

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C



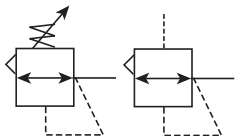
Product Selection C2-C3
Application Guide C4-C5
27R Precision Regulator C6-C7
27E Precision Filter / Regulator C8-C9
51R Dial Regulator C10-C11
52R Dial Regulator C12-C13
53R Dial Regulator C14-C15
54R Dial Regulator C16-C17
P3RA302 Compact High Precision Regulator... C18-C19
P3RA102 Standard High Precision Regulator .. C20-C21
P3RA102BP High Precision Relief Valve C22-C23
P3RA171 High Precision Vacuum Regulator C24-C25
P3EA632 Precision Filter / Regulator..... C26-C27
P3BA208 Precision Pneumatic Input Signal Amplifier..... C28-C29
P3BA45 Precision Pneumatic Input Signal Amplifier..... C30-C31
MPS32 Sensor C32-C38

BOLD ITEMS ARE MOST POPULAR.

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C

Precision Regulators



- Pipe Sizes 1/4 thru 2 Inch
- Flows to 150 SCFM
- Pressures to 500 PSIG

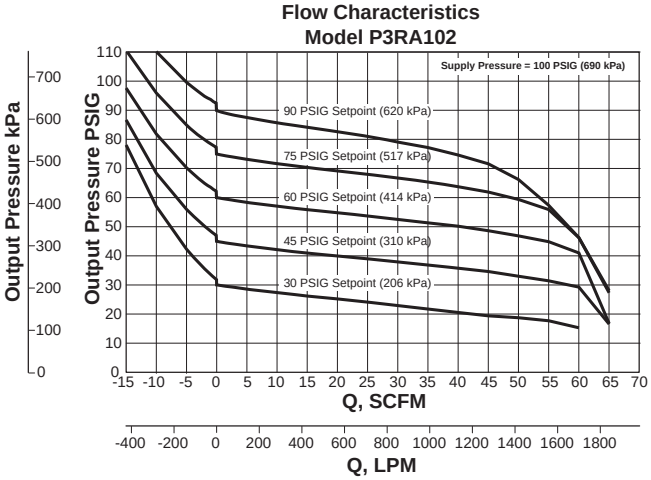
Air regulators are designed to provide quick response and accurate pressure regulation for the most demanding industrial applications.

- Precision 27R Series, 1/4 Inch
- Precision 27E Series, 1/4 Inch
- Dial Regulator 51R Series , 1/4 Inch
- Dial Regulator 52R Series, 1/4 thru 3/4 Inch
- Dial Regulator 53R Series, 3/4, 1 and 1-1/4 Inch
- Dial Regulator 54R Series, 1-1/2 and 2 Inch
- Compact High Precision P3RA302 Series, 1/4 Inch
- Standard High Precision P3RA102 Series, 1/4 Inch
- High Precision Relief Valve P3RA102BP Series, 1/4 Inch
- High Precision Vacuum Regulator P3RA171 Series, 1/4 Inch
- Precision Filter / Regulator P3EA632 Series, 1/4 Inch
- Precision Pneumatic Input Signal Ampli er P3BA208 Series, 1/4 Inch
- Precision Pneumatic Input Signal Ampli er P3BA45 Series, 1/2 and 3/4 Inch

Regulator Selection

1. Determine maximum system ow requirements.
2. Determine maximum allowable pressure drop at rated ow in SCFM.
3. Refer to ow chart and select regulator by choosing the curve that offers minimum pressure drop at desired ow in SCFM.

Reading Flow Charts to Size Regulators



Once the required ow is determined for a pneumatic application the regulator or lter/regulator can be selected by using the ow chart. The chart serves two different purposes. To read the ow, use the right side of the chart. To read the relief characteristics use the left side of the chart. When reading the ow chart, rst determine the secondary pressure that will be used. Find the appropriate pressure curve on the graph. Given an acceptable pressure drop for an application, follow the ow curve until it intersects the pressure drop point. This will give the ow at that particular pressure drop.

⚠ WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design. For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

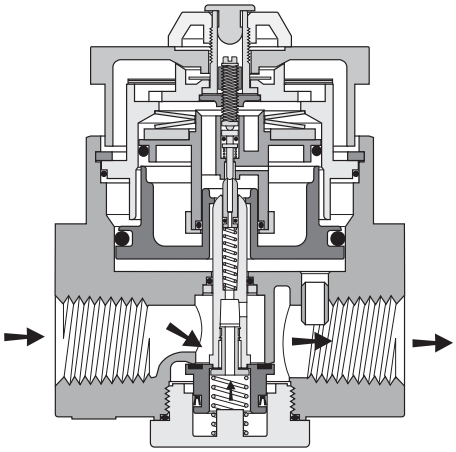
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Dial Regulator

The Dial Regulator is a constant bleed, piston operated regulator. The pilot controlled pressure reducing valve provides exceptionally high air flow with steady pressure control and minimal secondary pressure drop. The non-rising adjustment knob provides quick selection of the desired secondary pressure in less than one full turn. The adjustment knob also can serve as the pressure indicator thereby eliminating the need for a pressure gauge.
This regulator is specifically designed for applications requiring more accurate air circuit control, high air flow capacity with flat performance curves and quick regulator adjustment. The regulator can be used as a conventional regulator for standard air circuits or as a pilot regulator to provide pressure to the control chamber of a pilot operated (slave) regulator.

Operation

To set the regulator, turn the large dial adjustment knob to the desired secondary set pressure. This opens the pilot valve seat allowing air flow into the control chamber which forces the lower piston downward against the relief seat and opens the main valve. At the same time, the air in the control chamber forces the upper piston upward against Belleville springs which closes the pilot valve seat when the set pressure is attained. Secondary pressure in the chamber is now balanced against the control pressure through the lower piston. If demand flow increases, the constant control pressure will force the lower piston and the main valve further downward, and allow more flow downstream. A higher than desired secondary pressure will force the lower piston upward, closing the main valve seat and opening the main relief valve seat thereby allowing air to relieve to the atmosphere. For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

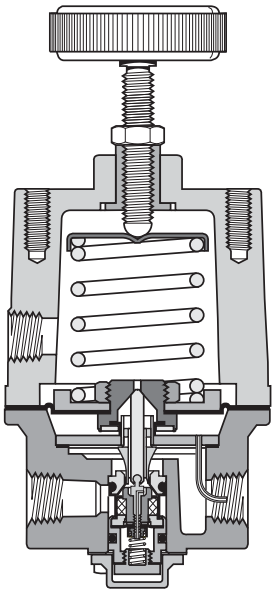


Precision Regulator

For use in applications that require reliable performance and accurate pressure control.This type of regulator is generally used for material handling systems, flow and temperature controllers, critical air control circuits, medical and scientific test equip-ment, and valve positioners.

Operation

Set the desired secondary pressure by turning the adjustment knob clockwise. This action increases the regulating spring force against the top of the diaphragm disc. When the spring force above exceeds the air pressure beneath the diaphragm, it is transmitted by the valve stem and opens the valve. Airflow through the regulator now occurs.
A precisely designed and positioned aspirator tube constantly transmits the secondary pressure to the under side of the diaphragm so that during flow conditions any pressure loss can be quickly compensated for. When flow is no longer required, the outlet pressure increases slightly, allowing the diaphragm to rise, the valve to close, and set pressure to be maintained.
On self-relieving models, if outlet pressure should increase above the set pressure, the diaphragm will rise therefore opening the relief seal between the diaphragm and the valve. The excess outlet pressure is then vented through the diaphragm orifice into the bonnet and subsequently to the atmosphere through an orifice in the bonnet. For best performance, regulated pressure should always be set by increasing the pressure to the desired setting.



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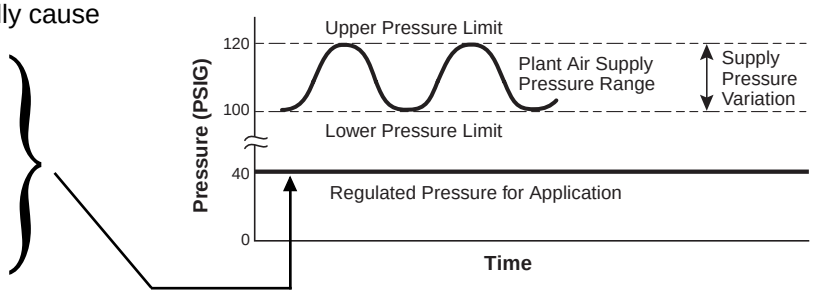
Precision Regulators Application Guide

Pneumatic pressure regulators are designed to provide a constant pressure output from a uctuating supply pressure – much the way an electronic voltage regulator works. Pressure regulators provide varying degrees of accuracy with regard to their reduced pressure output. General Purpose pressure regulators work for most uid power applications. However, for more pressure-critical applications precision regulators can provide the customer with the control they need.

C

A partial listing of things that can potentially cause regulator output pressure variation are:

- Temperature changes
- Inlet pressure changes
- Variations in ow
- Excess downstream pressure
- Cycling
- Time
- Leakage



Who needs precision regulators?

Design level applications:
When designing a pneumatic system it is important to determine not only the air ow that the application will require but also the acceptable level of pressure variation. Some pneumatic applications cannot tolerate uctuations in pressure. These applications can include static situations with only a steady pressure maintained, or dynamic ow situations involving any number of changing variables in play while trying to maintain a constant pressure.

Problem solving device for existing applications:
Sometimes an existing pneumatic application does not meet the customer's needs with regards to pressure control and/or stability. Any or all of the variables listed above can cause issues with pressure stability. As applications are expanded, added on to, or modi ed the pressure and ow requirements can change.

How do precision regulators differ from general purpose pneumatic regulators?

Examples-→	**High Precision Regulators** *P3RA302, P3RA102, P3RA102BP, P3RA171*	**Precision Regulators** *27R, Dial Regulators, R216*	**General Purpose Regulators** *05R, 06R, 07R, P3NR, R119*
Sensitivity: *Reduced pressure repeatability/variation under no-flow condition*	.005 to .010 PSIG (1/8" to 1/4" of water column)	.5 to 1 PSIG	2 to 4 PSIG
Regulator's ability to control back pressure accurately: **key for cylinder applications*	Begins to relieve at .005 to .010 PSIG overpressure	Begins to relieve at .5 to 2 PSIG overpressure	Begins to relieve at 5 to 10 PSIG overpressure
Regulator's ability to maintain set pressure under varying ow, input pressure, temperature conditions:	High	Medium	Standard
Constant Bleed - does the regulator constantly bleed a small volume of air to the atmosphere to maintain stability?	Yes	No	No

1" Water Column = .0360 PSI
1PSI = 27.7612 Inches Water Column

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Application Chart

Original Equipment Manufacturers (OEMs)

Air Gauging	Manufacturers of Air Gauging Equipment.
Anesthesia Equipment	Manufacturers
Calibration Stands	Similar to Test Stands
Clamping Pressure Control	End Effect Grippers, Roll Loading
Control Panels	Manufacturers and Users
Coordinate Measuring Machines	Manufacturers use in Force Counterbalance Applications in Z-axis
Dispensing Equipment	Adhesive, Paint, or any other form of Liquid or Gas
Food Process Machinery	Manufacturers
Gas Analyzers	Used for Reference and Calibration Air Pressures
Ink or Paint Robotics Spraying Systems	Manufacturers use to Maintain an Even Pressure on System
Leak Testing Equipment	Manufacturers of Equipment that Detects Leaks (i.e., Plastic Bottles)
Medical Equipment	Manufacturers that Utilize for Blood Processing and Sampling as Examples
Oxygen Ventilators	Manufacturers
Pharmaceutical Process Machinery	Pill or Tablet Making Machines
Phone Cable Pressurization Systems	Manufacturers
Polishing Machinery	Used to Maintain Even Pressure on Polishing Head
Semi-conductor Manufacturing Machinery	Manufacturers
Smoke Stack Analyzers	Used for Reference and Calibration Air Pressures
Soil or Environmental Analysis Equipment	Used for Reference and Calibration Air Pressures
Tank Blanketing	Maintain Pressure on Top Level of a Tank or Storage Vessel
Test Equipment	Similar to Test Stands
Test Stands	Manufacturers of Test Stands, Laboratory Test Stands, Engineering Test Stands, Production Test Stands
Tool Balancers	Manufacturers of Tool Balancers, Manipulators, and Articulating Arms use High Relief Capacity Precision Regulators in a Force-balancing Application. Used as part of a Pneumatic Counter-balance System, the Regulator helps suspend the tool in the air and then makes it easy to move out of the way when not in use.
Web Tensioning	Machinery Builders for Printing Presses, Paper Converting, Packaging, Textiles, Plastics. Primarily Unwind Stands and Rewind Stands.

System Integrators

Automation Integrators	Anyone Involved in Designs or Projects that Automate Processes

Energy Controls Systems

HVAC	Anyone who would be involved in Designs that would include Damper and Louvre Control for HVAC Applications

End Users

Instrumentation Supervisors	
Instrumentation Technicians	
Project Engineers	
Store Room Supervisors	

MRO

Chemical	
Petrochemical	
Pulp & Paper	
Food & Drug	
Re neries	
Power	
Mining	
Oil & Gas	

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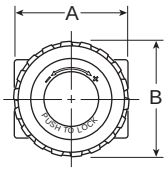
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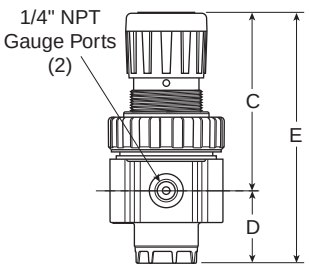
27R Regulator – Precision



Features

- Fine adjustment sensitivity.
- Good repeatability and minimal pressure drop.
- High flow capacity.
- Two 1/4" gauge ports.
- Brass Poppet for long life.
- High Flow: 25 SCFM§
- Modular with 05 Series FRL.
- Non-rising, removable knob.
- Multiple porting options.





Port Size	Pressure	Part Number
1/4"	15 PSIG	**27R112A***
1/4"	30 PSIG	**27R110A***
1/4"	60 PSIG	**27R114A***
1/4"	125 PSIG	**27R113A***

Standard part numbers shown bold. For other models refer to ordering information below.

NOTE: 1.53 Dia. (39mm) hole required for panel mounting. Maximum panel thickness 1/4".

§ SCFM = Standard cubic feet per minute at 150 PSIG inlet, 90 PSIG no ow secondary setting and 5 PSIG pressure drop.

27R Regulator Dimensions		
A 2.00 (51)	**B** 2.06 (52)	**C** 3.16 (80)
D 1.28 (32)	**E** 4.44 (113)	

Inches (mm)

⚠ WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

Ordering Information

27R	1	10	A	*	—	—	---

Port Size
- **1 1/4 Inch**
- **2 3/8 Inch**

Pressure Range
- 10 30 PSIG
- 12 15 PSIG
- **13 125 PSIG**
- **14 60 PSIG**

Relief
- **A Relieving**

Engineering Level
- * Will be Entered at Factory

Port Typ

Blank	**NPT**
1	BSPP
2	BSPT

Options

Blank	**No Options**
L†	Preset Non-Adjustable
P†	Preset Adjustable
S†	Pressure Limiter Max. Adjustable
T†	Pressure Limiter Max. Non- Adjustable

† Inlet Pressure is 100 PSIG. For other pressures, contact factory.

Preset / Pressure Limited

Blank	**None**
XXX*	Preset Pressure
XXX*	Pressure Limited

* Available Preset / Pressure Limited Range, 10 to 90 PSIG in 5 PSIG increments. For higher pressures, contact factory. (Example: 065 = 65 PSIG)

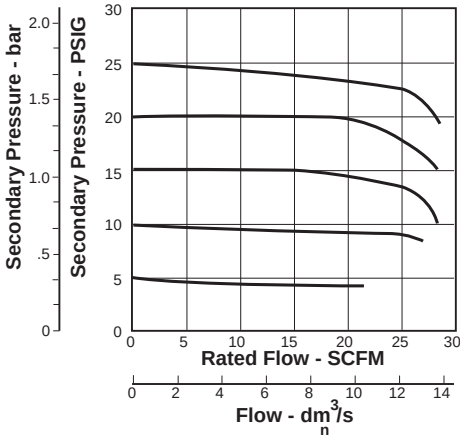
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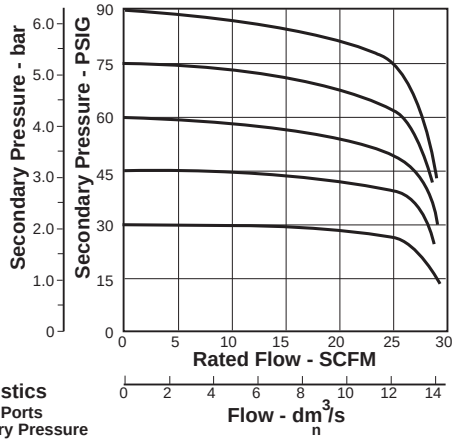
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Technical Information

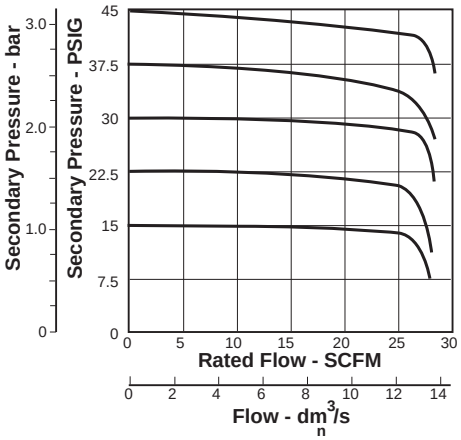
Flow Characteristics
27R110A*
1/4 Inch Ports
100 PSIG (6.9 bar) Primary Pressure



Flow Characteristics
27R113A*
1/4 Inch Ports
100 PSIG (6.9 bar) Primary Pressure



Flow Characteristics
27R114A*1/4 Inch Ports
100 PSIG (6.9 bar) Primary Pressure



CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

27R Regulator Kits & Accessories

Bonnet Assembly Kit PS910P
Control Knob P0442001
Gauges – 1-1/2" Dial Face
30 PSIG (0 to 2.1 bar).....K4515N14030
60 PSIG (0 to 4.1 bar).....K4515N14060
160 PSIG (0 to 11.0 bar).....K4515N14160
300 PSIG (0 to 20.0 bar).....K4515N14300
2" Dial Face
60 PSIG (0 to 4.1 bar).....K4520N14060
160 PSIG (0 to 11.0 bar).....K4520N14160
300 PSIG (0 to 20.0 bar).....K4520N14300
Mounting Bracket Kit PS963P
Panel Mount Nut – Metal PS964P
Pressure Sensor – MPS-32 ..... (See pages C32-C38)
Service Kit PS907P
Springs – 1-30 PSIG Range.....P04427
1-15 PSIG Range.....P04428
0-60 PSIG Range.....P04426
2-125 PSIG Range.....P04425

Specifications

Bleed Rate ..... 2.0 SCFH
Gauge Ports (2) ..... 1/4 Inch
Effect of Supply Pressure Variation –
0.5 PSIG (0.04 bar) for 25 PSIG (1.7 bar) change in P^1
Relief Capacity –
0.5 SCFM (0.24 dm^2/s) @ 5 PSIG (0.4 bar) increase in P^2
Flow Capacity –
28 SCFM (13.2 dm^2/s) @ 100 PSIG (6.9 bar) P^1
and 20 PSIG (1.4 bar) P^2
Port Threads ..... 1/4, 3/8 Inch
Maximum Inlet Pressure ..... 250 PSIG (17.2 bar)
Relief Flow ..... 5.0 SCFM
Repeatability ..... ±.5 PSIG (±0.034 bar)
Response – ..... 510 ms
The valve will open to full ow and ll a volume of 100 in^3
Temperature Rating .....32°F to 175°F (0°C to 80°C)
Weight .....1.0 lb. (0.45 kg)

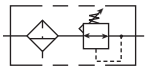
Materials of Construction

Poppet ..... Brass
Bonnet .....Plastic
Body ..... Zinc
Collar, Knob .....Plastic
Diaphragm .....Nitrile
Bottom Cap .....Plastic
Seals .....Nitrile
Springs – Poppet & Control ..... Steel

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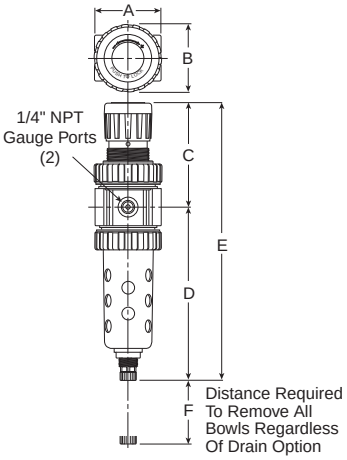
27E Filter / Regulator – Precision





Features

- Excellent water removal efficiency.
- High flow.
- Fine adjustment sensitivity.
- Good repeatability and minimal pressure drop.
- Modular with 05 Series FRL
- Non-Rising removable adjustment knob.
- High Flow: 20 SCFM§



Port Size	NPT
	Twist Drain
Poly Bowl‡ / Sight Gauge	
1/4"	**27E12A13A***
3/8"	**27E22A13A***
Metal Bowl / Sight Gauge	
1/4"	**27E14A13A***
3/8"	**27E24A13A***

27E Filter / Regulator Dimensions

A	B	C
2.00 (51)	2.06 (52)	3.16 (80)
D†	**E†**	**F**
5.35 (136)	8.51 (216)	1.77 (45)

Inches (mm)
† With Twist Drain or Auto Pulse Drain

Standard part numbers shown bold. For other models refer to ordering information below.

‡ For Polycarbonate Bowl, see Caution on page A2.

§ SCFM = Standard cubic feet per minute at 150 PSIG inlet, 90 PSIG no ow secondary setting and 10 PSIG pressure drop.

⚠ WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

Ordering Information

27E	1	2	A	13	A	*	—	—	---

Port Size
- **1 1/4 Inch**
- **2 3/8 Inch**

Elements
- **A 40 Micron**
- B 5 Micron
- Z Adsorber

Relief
- **A Relieving**

Port Type

Blank	NPT
1*	BSPP
2	BSPT

* 1/4 & 3/8 inch meet ISO 1179-1 Standard.

Preset / Pressure Limited

Blank	None
XXX*	Preset Pressure
XXX*	Pressure Limited

* Available Preset / Pressure Limited Range, 10 to 90 PSIG in 5 PSIG increments. For higher pressures, contact factory.
(Example: 065 = 65 PSIG)

Bowl Options

Polycarbonate Bowl	Metal Bowl
1 Twist Drain	3 Twist Drain
2 Metal Bowl Guard / Twist Drain	**4 Sight Gauge / Twist Drain**
N Auto Float Drain	R Auto Float Drain
P Metal Bowl Guard / Auto Pulse Drain	**T Sight Gauge / Auto Pulse Drain**

Pressure Range

Without Gauge	
10	30 PSIG
11	**60 PSIG**
12	15 PSIG
13	**125 PSIG**
14§	200 PSIG

§ Requires Metal Bowl

Engineering Level
- * Will be Entered at Factory

Options

Blank	No Options
L†	Preset Non-Adjustable
P†	Preset Adjustable
S†	Pressure Limiter Max. Adjustable
T†	Pressure Limiter Max. Non-Adj.

† Inlet Pressure is 100 PSIG. For other pressures, contact factory.

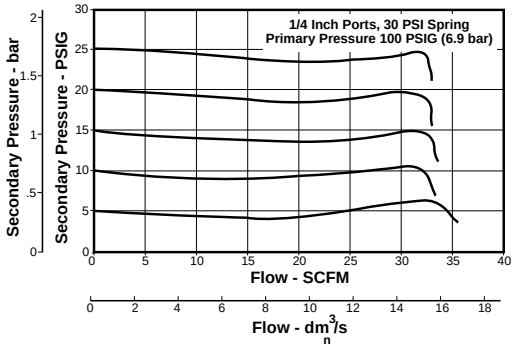
Spring Type by Preset / Limited Pressure:
For Preset / Limited Pressure 10 to 25 use 30 PSI Spring
For Preset / Limited Pressure 26 to 50 use 60 PSI Spring
For Preset / Limited Pressure 51 to 90 use 125 PSI Spring

BOLD ITEMS ARE MOST POPULAR.

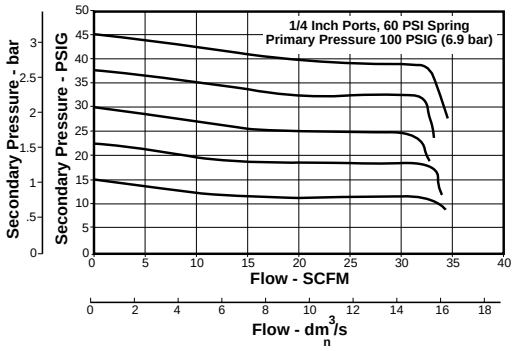
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Technical Information

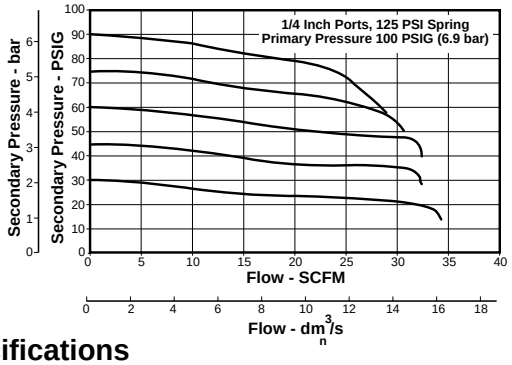
Flow Characteristics
27E12A10AB



Flow Characteristics
27E12A11AB



Flow Characteristics
27E12A13AB



CAUTION:

REGULATOR PRESSURE ADJUSTMENT – The working range of knob adjustment is designed to permit outlet pressures within their full range. Pressure adjustment beyond this range is also possible because the knob is not a limiting device. This is a common characteristic of most industrial regulators, and limiting devices may be obtained only by special design.

For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.

27E Filter / Regulator Kits & Accessories

Bowl Guard Kit PS905P

Bowl Kits –
- Poly Bowl – Automatic Pulse Drain PS995P
- Twist Drain PS932P
- Metal Bowl – Automatic Pulse Drain PS997P
- Twist Drain PS934P
- Sight Gauge / Automatic Pulse Drain PS996P
- Sight Gauge / Twist Drain PS935P

Control Knob P0442001

Drain Kit – Automatic Pulse Drain PS998P
- Semi-Auto Drain PS511P
- Twist Drain PS512P
- Push 'N' Drain PS513P

Filter Element Kits – 40 Micron PS901P
- 5 Micron PS902P
- Adsorber PS931P

Sight Gauge Kit PS914P

Gauges – 1-1/2" Dial Face
- 30 PSIG (0 to 2.1 bar) K4515N14030
- 60 PSIG (0 to 4.1 bar) K4515N14060
- 160 PSIG (0 to 11.0 bar) K4515N14160
- 300 PSIG (0 to 20.0 bar) K4515N14300

2" Dial Face
- 60 PSIG (0 to 4.1 bar) K4520N14060
- 160 PSIG (0 to 11.0 bar) K4520N14160
- 300 PSIG (0 to 20.0 bar) K4520N14300

Mounting Bracket Kit (Includes Panel Mount Nut) PS963P

Panel Mount Nut – Metal PS964P

Pressure Sensor – MPS-32 ..... (See pages C32-C38)

Springs – 1-15 PSIG Range P04428
- 1-30 PSIG Range P04427
- 1-60 PSIG Range P04426
- 2-125 PSIG Range P04425
- 2-200 PSIG P02934

Regulator Service Kit PS907P

Bonnet Assembly Kit PS910P

Specifications

Bowl Capacity ..... 2.0 Ounces
Bleed Rate ..... 2.0 SCFH
Gauge Ports (2) ..... 1/4 Inch
Effect of Supply Pressure Variation –
0.5 PSIG (0.04 bar) for 25 PSIG (1.7 bar) change in P1
Flow Capacity –
33 SCFM (15.6 dm²/s) @ 100 PSIG (6.9 bar) P1
and 20 PSIG (1.4 bar) P2
Sump Capacity ..... 0.9 Ounce
Port Threads ..... 1/4, 3/8 Inch
Pressure & Temperature Rating –
Polycarbonate Bowl – 0 to 150 PSIG (0 to 10.3 bar)
32°F to 125°F (0°C to 52°C)
Metal Bowl – 0 to 250 PSIG (0 to 17.2 bar)
32°F to 175°F (0°C to 80°C)
Automatic Pulse Drain – 10 to 150 PSIG (0.7 to 10.3 bar)
Relief Capacity –
0.5 SCFM (0.24 dm²/s) @ 5 PSIG (0.4 bar) increase in P2
Repeatability ..... ±.14 PSIG (±0.0097 bar)
Response – ..... 510 ms
The valve will open to full ow and ll a volume of 100 in³
Weight ..... 1.35 lb. (0.6 kg)

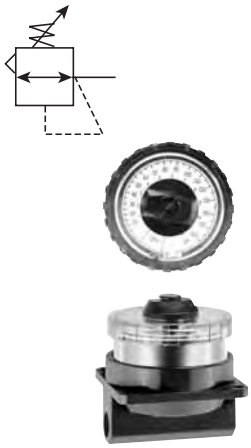
Materials of Construction

Adjusting Stem ..... Steel
Body ..... Zinc
Bonnet, Internal Parts ..... Plastic
Bowl Guard ..... Steel
Collar ..... Plastic
Diaphragm ..... Nitrile
Drain ..... Plastic
Filter Elements – 40 Micron (Standard) ..... Plastic
5 Micron (Optional) ..... Plastic
Adsorber (Optional) ..... Activated Charcoal
Knob ..... Plastic
Poppet ..... Brass
Seals ..... Nitrile
Sight Gauge ..... Polyamide (Nylon)
Springs – Poppet & Control ..... Steel

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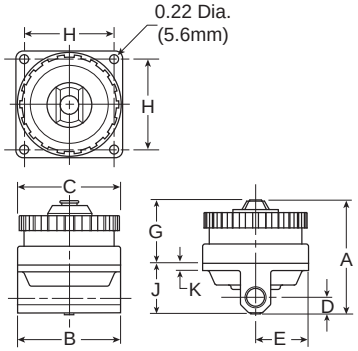
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51R Regulator – Relieving



Features

- Pressure reference indicating dial face.
- Non-rising, pressure-adjustment dial.
- Self-relieving.
- Full pressure adjustment in less than one full turn.
- Recommended for pilot-air applications.
- Flow capacity: 1/4" – 0.7 SCFM§



Port Size	Standard Pressure 5 to 160 PSIG (0.34 to 11 bar)	Low Pressure 2 to 40 PSIG (0.14 to 3 bar)
1/4"	**51R126R***	**51R125R***

Standard part numbers shown bold. For other models refer to ordering information below.

* Inlet pressure 100 psig (6.9 bar). Secondary pressure 90 psig (6.2 bar).

§ SCFM = Standard cubic feet per minute at 100 PSIG inlet, 90 PSIG no- ow secondary setting and 25 PSIG pressure drop.

51R Regulator Dimensions		
A 2.80 (71)	**B** 2.60 (66)	**C** 2.60 (66)
D 0.40 (10)	**E** 1.30 (33)	**G** 1.56 (39.6)
H 2.20 (56)	**J** 1.25 (31.8)	**K** .18 (4.6)

Inches (mm)

⚠ WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

Ordering Information

51R	1	26	R	*	—

Port Size
1 **1/4 Inch**

Springs
25 2 to 40 PSIG
26 5 to 160 PSIG

Relief
R Relieving

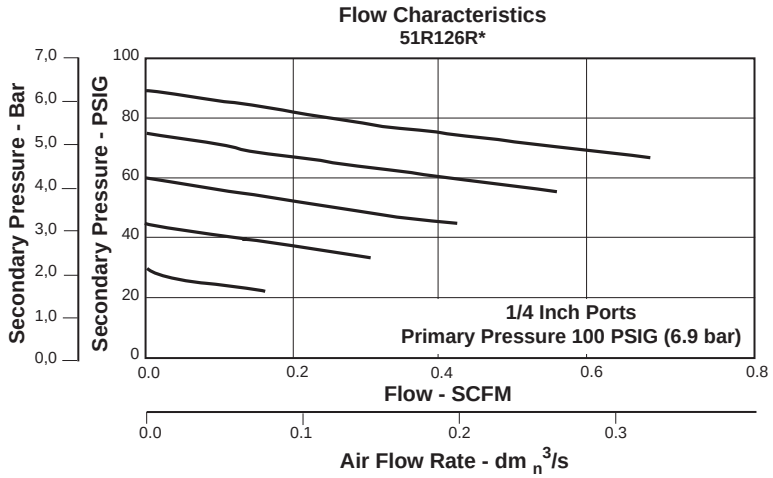
Engineering Level
* Will be Entered at Factory

Thread Type
Blank NPT
1 BSPP

BOLD ITEMS ARE MOST POPULAR.

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Technical Information



C

51R Regulator Kits & Accessories

Adjustment Dial Knob RRP-16-024-80
O-ring, Repair Kit GRP-95-260-80
Piston and Bonnet Repair Kit RRP-95-765-80
Spring, Regulation, Belleville Washer –
2 to 40 PSIG (2.8 bar) RRP-95-906-80
5 to 160 PSIG (11.0 bar) RRP-95-905-80
Tamper Resistant Kit RRP-95-585-80
Valve, Pilot with O-ring and Valve Spring RRP-96-934-80

Specifications

Adjusting Range Pressure ..... 2 to 40 PSIG (0 to 2.8 bar)
5 to 160 PSIG (0 to 11.0 bar)
Bleed Rate ..... 0.05 SCFM
Maximum Operating Temperature ..... 150°F (65.5°C)
Maximum Supply Pressure ..... 300 PSIG (20.7 bar)
Port Threads ..... 1/4"
Weight ..... 1.3 lb. (0.5 kg)

Materials of Construction

Body ..... Zinc
Bonnet ..... Zinc / Brass
Piston ..... Acetal
Seals ..... Nitrile
Springs ..... Steel
Valve Assembly ..... Brass / Nitrile / Acetal

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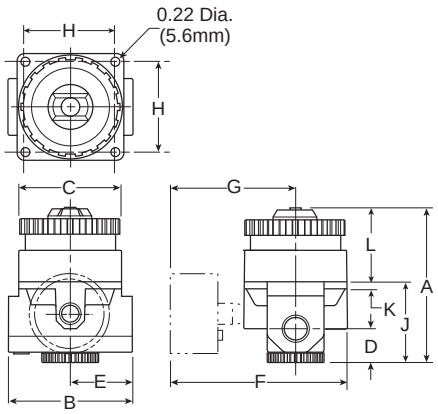
C

52R Regulator – Relieving



Features

- Balanced poppet design.
- Non-rising, pressure-adjusting dial.
- High-relief flow (3/16" relief orifice).
- Two 1/4" gauge ports.
- Piston operated.
- Flow capacity: 1/4" – 117 SCFM§
  3/8" – 180 SCFM§
  1/2" – 195 SCFM§
  3/4" – 220 SCFM§



Port Size	High Flow 5 to 160 PSIG (0.34 to 11 bar)	Low Pressure 2 to 40 PSIG (0.14 to 3 bar)
1/4"	**52R126R***	**52R125R***
3/8"	**52R226R***	**52R225R***
1/2"	**52R326R***	**52R325R***
3/4"	**52R426R***	**52R425R***

Standard part numbers shown bold. For other models refer to ordering information below.

* Inlet pressure 100 PSIG (6.9 bar). Secondary pressure (1/4, 1/2 & 3/4) 90 PSIG (6.2 bar); (3/8) 80 PSIG (5.5 bar).

§ SCFM = Standard cubic feet per minute at 100 PSIG inlet, 90 PSIG no- ow secondary setting and 25 PSIG pressure drop.

52R Regulator Dimensions

A	B	C
4.10 (104)	3.20 (81)	2.60 (66)
D	**E**	**F**
0.95 (24)	1.60 (41)	4.30 (109)
G	**H**	**J**
2.70 (69)	2.20 (56)	2.08 (52.8)
K	**L**	
.18 (4.6)	2.07 (52.6)	

Inches (mm)

⚠ WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

Ordering Information

52R	1	26	R	*	—

Port Size
1 1/4 Inch
2 3/8 Inch
3 1/2 Inch
4 3/4 Inch

Springs
25 2 to 40 PSIG
26 5 to 160 PSIG

Relief
R Relieving

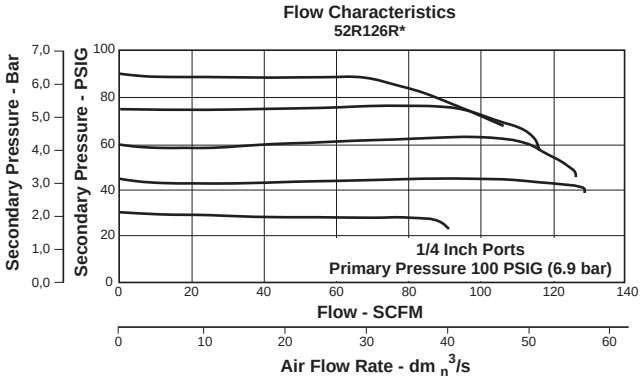
Engineering Level
* Will be Entered at Factory

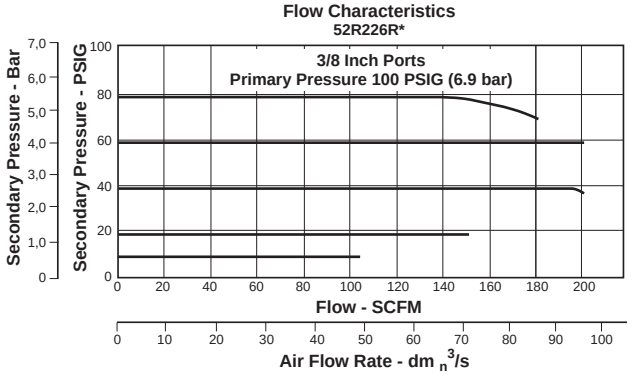
Thread Type
Blank NPT
1 BSPP

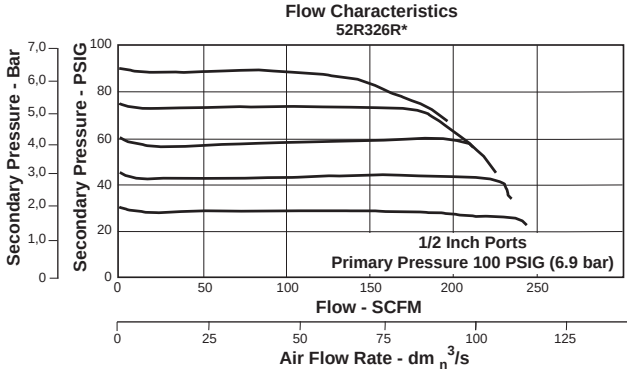
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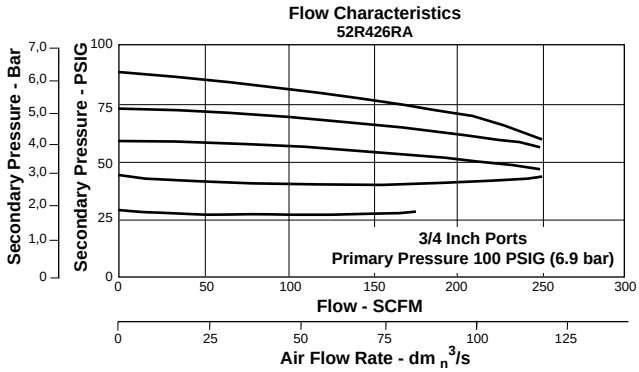
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Technical Information









52R Regulator Kits & Accessories

Adjustment Dial Knob RRP-16-024-80
O-ring, Repair Kit GRP-95-260-80
Piston Bottom and O-ring Seal RRP-95-192-80
Pistons and Bonnet Repair Kit RRP-95-766-80
Spring, Regulation, Belleville Washer –
2 to 40 PSIG Range RRP-95-906-80
5 to 160 PSIG Range RRP-95-905-80
Tamper Resistant Kit RRP-95-585-80
Valve, Main with U-Cup Seal & Bottom Plug RRP-95-914-80
Valve, Main with U-Cup Seal RRP-95-151-80
Valve, Pilot with O-ring and Valve Spring RRP-96-934-80

Specifications

Adjusting Range Pressure ..... 2 to 40 PSIG (0 to 2.8 bar)
5 to 160 PSIG (0 to 11.0 bar)
Bleed Rate ..... 0.05 SCFM
Gauge Ports ..... Two Ports 1/4"
(Can be used as additional High Flow 1/4 Inch Outlet Ports)
Maximum Operating Temperature ..... 150°F (65.5°C)
Maximum Supply Pressure ..... 300 PSIG (20.7 bar)
Port Threads ..... 1/4", 3/8", 1/2", 3/4"
Weight ..... 2.3 lb. (1.04 kg)

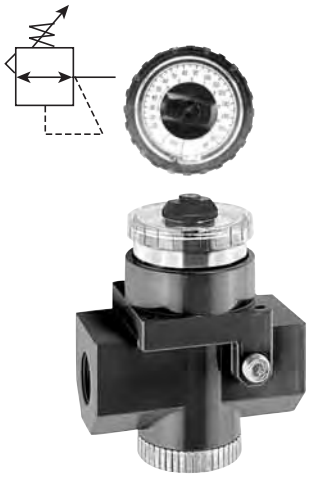
Materials of Construction

Body ..... Zinc
Bonnet ..... Zinc / Brass
Piston ..... Acetal
Seals ..... Nitrile
Springs ..... Steel
Valve Assembly ..... Brass / Nitrile / Acetal

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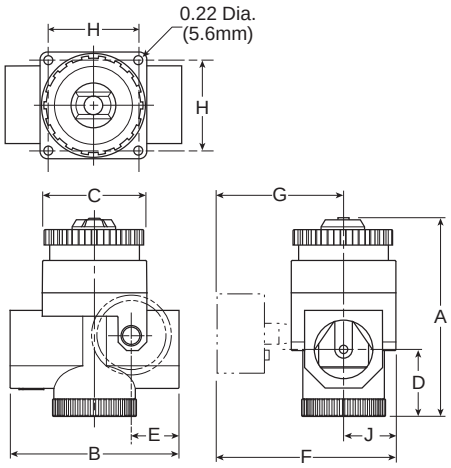
C

53R Regulator – Relieving



Features

- Balanced poppet design.
- N on-rising, pressure-adjusting dial.
- High-relief flow (3/16" relief orifice).
- Two 1/4" gauge ports.
- Piston operated.
- Flow capacity: 3/4" – 400 SCFM§
  1" – 650 SCFM§
  1-1/4" – 700 SCFM§



Port Size	High Flow 5 to 160 PSIG (0.34 to 11 bar)	Low Pressure 2 to 40 PSIG (0.14 to 3 bar)
3/4"	**53R426R***	**53R425R***
1"	**53R526R***	**53R525R***
1-1/4"	**53R626R***	**53R625R***

Standard part numbers shown bold. For other models refer to ordering information below.

* Inlet pressure 100 PSIG (6.9 bar). Secondary pressure 80 PSIG (5.5 bar).

§ SCFM = Standard cubic feet per minute at 100 PSIG inlet, 90 PSIG no- ow secondary setting and 25 PSIG pressure drop.

53R Regulator Dimensions		
A 5.20 (132)	**B** 4.30 (109)	**C** 2.60 (66)
D 1.70 (43)	**E** 1.23 (31)	**F** 4.30 (109)
G 3.00 (76)	**H** 2.20 (56)	**J** 1.21 (33)

Inches (mm)

⚠ WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

Ordering Information

53R	4	26	R	*	—

Port Size
4 3/4 Inch
5 1 Inch
6 1-1/4 Inch

Springs
25 2 to 40 PSIG
26 5 to 160 PSIG

Relief
R Relieving

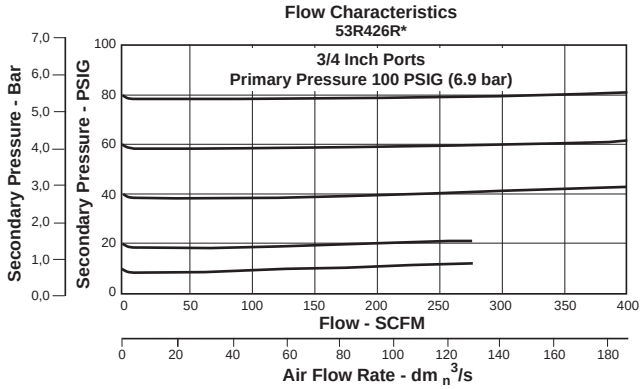
Engineering Level
* Will be Entered at Factory

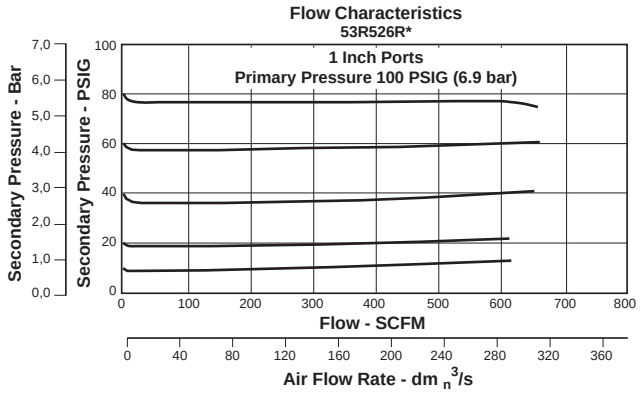
Thread Type	
Blank	**NPT**
1	BSPP

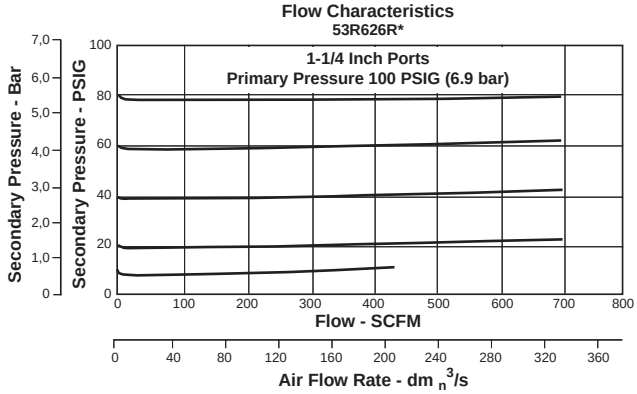
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Technical Information







C

53R Regulator Kits & Accessories

Adjustment Dial Knob RRP-16-024-80
O-ring, Repair Kit GRP-95-261-80
Piston, Bottom and O-ring Seal RRP-95-192-80
Pistons and Bonnet Repair Kit RRP-95-766-80
Spring, Regulation, Belleville Washer –
2 to 40 PSIG Range RRP-95-906-80
5 to 160 PSIG Range RRP-95-905-80
Tamper Resistant Kit RRP-95-585-80
Valve, Main with O-ring Seal RRP-95-152-80
Valve, Pilot with O-ring and Valve Spring RRP-96-935-80

Specifications

Adjusting Range Pressure ..... 2 to 40 PSIG (0 to 2.8 bar)
5 to 160 PSIG (0 to 11.0 bar)
Bleed Rate ..... 0.05 SCFM
Gauge Ports ..... Two Ports 1/4"
(Can be used as additional High Flow 1/4 Inch Outlet Ports)
Maximum Operating Temperature ..... 150°F (65.5°C)
Maximum Supply Pressure ..... 300 PSIG (20.7 bar)
Port Threads ..... 3/4", 1", 1-1/4"
Weight ..... 4.0 lb. (1.8 kg)

Materials of Construction

Body ..... Zinc
Bonnet ..... Zinc / Brass
Piston ..... Acetal
Seals ..... Nitrile
Springs ..... Steel
Valve Assembly ..... Brass / Nitrile / Acetal

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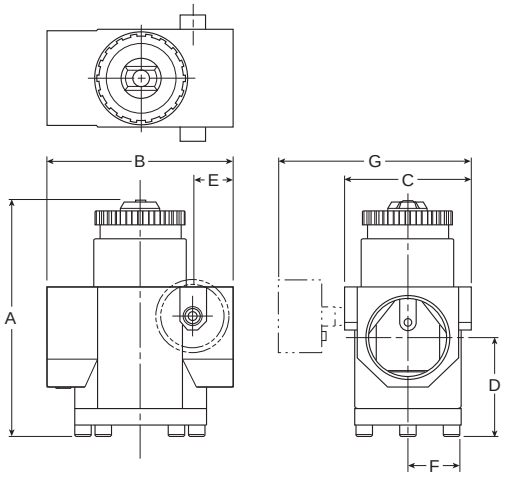
C

54R Regulator – Relieving



Features

- Balanced poppet design.
- Non-rising, pressure-adjusting dial.
- High-relief flow (3/16" relief orifice).
- Two 1/4" gauge ports.
- Piston operated.
- Flow capacity: 1-1/2" – 1,600 SCFM§
  2" – 1,600 SCFM§



Port Size	High Flow 5 to 160 PSIG (0.34 to 11 bar)	Low Pressure 2 to 40 PSIG (0.14 to 3 bar)
1-1/2"	**54R726R***	**54R725R***
2"	**54R826R***	**54R825R***

Standard part numbers shown bold. For other models refer to ordering information below.

* Inlet pressure 100 PSIG (6.9 bar). Secondary pressure 80 PSIG (5.5 bar).

§ SCFM = Standard cubic feet per minute at 100 PSIG inlet, 90 PSIG no- ow secondary setting and 25 PSIG pressure drop.

54R Regulator Dimensions		
A 6.80 (173)	**B** 5.30 (135)	**C** 3.60 (90)
D 2.80 (71)	**E** 1.15 (29)	**F** 1.80 (48)
G 5.30 (135)		

Inches (mm)

⚠ WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

Ordering Information

54R	7	26	R	*	—

Port Size
7 1-1/2 Inch
8 2 Inch

Springs
25 2 to 40 PSIG
26 5 to 160 PSIG

Relief
R Relieving

Engineering Level
* Will be Entered at Factory

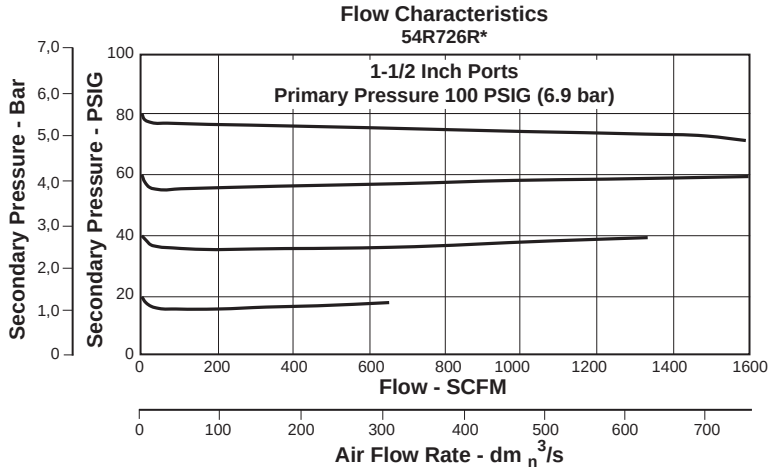
Thread Type	
Blank	**NPT**
1	BSPP

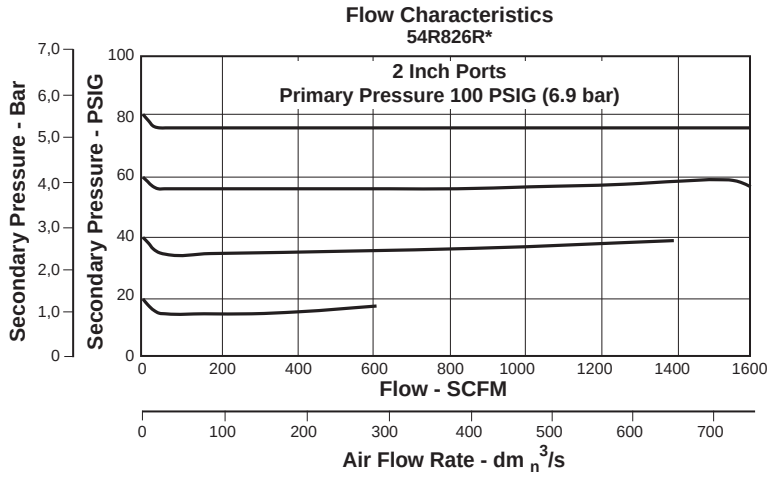
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Technical Information





54R Regulator Kits & Accessories

Adjustment Dial Knob RRP-16-024-80
O-ring, Repair Kit GRP-95-262-80
Piston, Bottom and O-ring Seal RRP-95-192-80
Pistons and Bonnet Repair Kit RRP-95-766-80
Spring, Regulation, Belleville Washer –
2 to 40 PSIG Range RRP-95-906-80
5 to 160 PSIG Range RRP-95-905-80
Spring, Main Valve RRP-95-024-80
Tamper Resistant Kit RRP-95-585-80
Valve, Main with O-ring Seal RRP-95-153-80
Valve, Pilot with O-ring and Valve Spring RRP-96-935-80

Specifications

Adjusting Range Pressure ..... 2 to 40 PSIG (0 to 2.8 bar)
5 to 160 PSIG (0 to 11.0 bar)
Bleed Rate ..... 0.05 SCFM
Gauge Ports ..... Two Ports 1/4"
(Can be used as additional High Flow 1/4 Inch Outlet Ports)
Maximum Operating Temperature ..... 150°F (65.5°C)
Maximum Supply Pressure ..... 300 PSIG (20.7 bar)
Port Threads ..... 1-1/2", 2"
Weight ..... 9 lb. (4.1 kg)

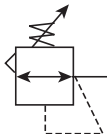
Materials of Construction

Body ..... Zinc
Bonnet ..... Zinc / Brass
Piston ..... Zinc
Seals ..... Nitrile
Springs ..... Steel
Valve Assembly ..... Brass / Nitrile / Acetal

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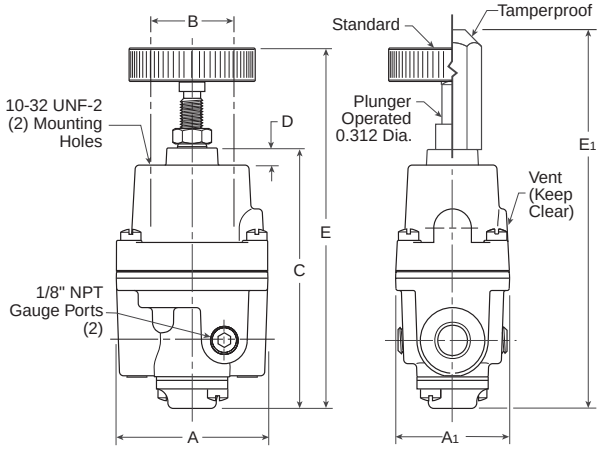
P3RA302 Regulator – Compact High Precision





Features

- Control sensitivity of .250" (.63 cm) water column variation allows use in precision applications.
- A compensating diaphragm lets the regulator remain unaffected by supply pressure changes.
- Flow of up to 40 SCFM with 100 PSIG supply allows use in applications with high flow requirements.
- An aspirator tube compensates downstream pressure droop under flow conditions.
- A separate Control Chamber isolates the diaphragm from the main flow to eliminate hunting and buzzing.
- Unit construction lets you service the Regulator without removing it from the line.



P3RA302 Regulator Dimensions		
A 2.25 (57.3)	**A1** 1.70 (43.1)	**B** 1.25 (31.8)
C 3.81 (96.7)	**D** 0.25 (6.4)	**E** 5.22 (132.6)
E1 5.56 (141.1)		

Inches (mm)

The P3RA302 Regulator is designed for applications that require high capacity and accurate process control in a small package. A poppet valve which is balanced by utilizing a convoluted diaphragm, insures a constant output pressure even during wide supply pressure variations. Stability of regulated pressure is maintained under varying flow conditions through the use of an aspirator tube which adjusts the air supply in accordance with the flow velocity.

⚠ WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

Ordering Information

P3RA302	4	2	

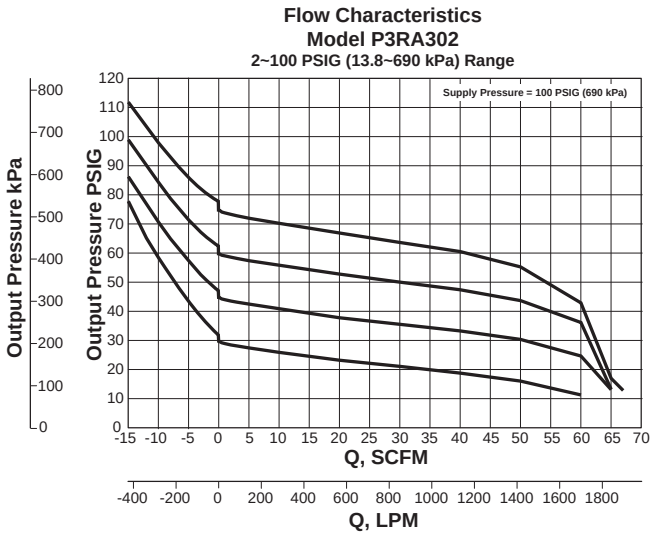
Springs	Pipe Size	Options
3 0.5 to 30 PSIG	**2 1/4" NPT**	**Blank No Options**
4 1 to 60 PSIG		H BSPP
5 2 to 100 PSIG		N Non-Relieving

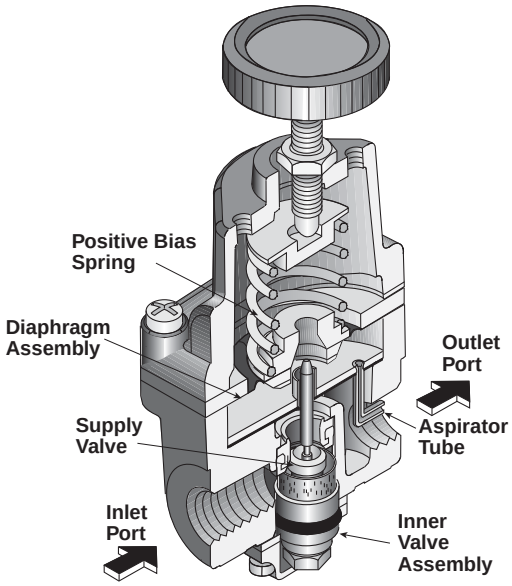
Note: Other Spring Ranges, Port Sizes, and Options Available. Please Consult Factory

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Technical Information





C

Operating Principles

The P3RA302 Regulator uses the force balance principal to control the movement of the valve assembly which in turn controls the output pressure. When the regulator is adjusted for a specific set point, the downward force of the Positive Bias Spring causes the Diaphragm Assembly to move downward. The Supply Valve opens and allows air to pass to the Outlet Port. As the set point is reached, the downward force exerted by the Positive Bias spring is balanced by the upward force of the downstream pressure acting on the bottom of the Diaphragm Assembly. The resultant force moves the supply Valve upward to reduce the flow of air to the Outlet Port.

Outlet pressure is maintained as a result of balance between forces acting on the top and bottom of the Diaphragm Assembly.

P3RA302 Kits and Accessories

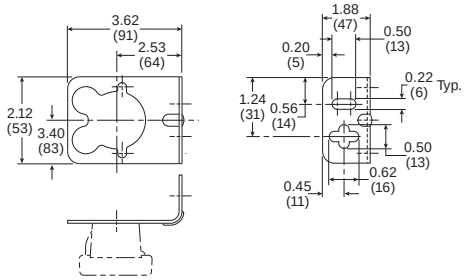
Service Kits –

1/2 to 30, 1 to 60, & 2 to 100 PSIG, Nitrile, Standard..... PS16116-13

1/2 to 30, 1 to 60, & 2 to 100 PSIG, Nitrile, Non-relieving PS16116-14

Tamper Resistant Kit..... PS12163

Mounting Bracket Kit PS417BP



Specifications

Supply Pressure..... 250 PSIG, (17.0 bar), (1700 kPa) Maximum

Flow Capacity –
40 SCFM (68 m^3/HR) @ 100 PSIG, (7.0 bar), (700 kPa) Supply and 20 PSIG, (1.5 bar), (150 kPa) Setpoint

Exhaust Capacity –
2.0 SCFM (3.4 m^3/HR) where Downstream Pressure is 5 PSIG, (.35 bar), (35 kPa) above 20 PSIG, (1.5 bar), (150 kPa) Setpoint

Supply Pressure Effect –
Less than 0.2 PSIG, (.014 bar), (.14 kPa) for 100 PSIG, (7.0 bar), (700 kPa) change in Supply Pressure

Sensitivity..... .250" (.010 PSIG) (.64 cm) Water Column

Ambient Temperature .....-40°F to +200°F, (-40°C to 93°C)

Hazardous Locations –
Acceptable for use in Zones 1 and 2 for Gas Atmosphere: Groups IIA and IIB and Zones 21 and 22 for Dust Atmospheres

Materials of Construction

Body and Housing ..... Aluminum

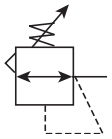
Diaphragms..... Nitrile on Dacron

Trim..... Brass

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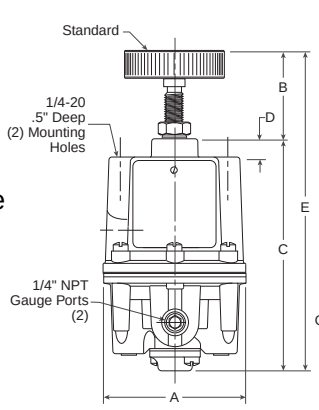
P3RA102 Regulator – Standard High Precision



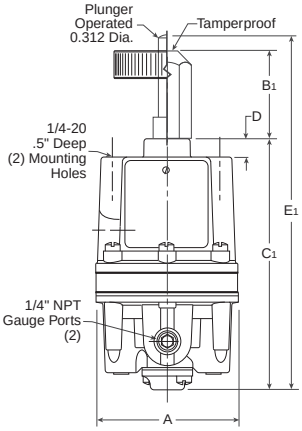


Features

- Control sensitivity of .125" (.32) water column allows use in precision processes.
- Pressure balanced supply valve prevents supply pressure changes from affecting the setpoint.
- Optional check valve permits dumping of downstream pressure when supply is opened to atmosphere.
- Separate control chamber isolates the diaphragm from the main flow to eliminate hunting and buzzing.
- An aspirator tube compensates downstream pressure droop under flow conditions.



2 thru 200 PSIG Range



300 & 400 PSIG Range

P3RA102 Regulator Dimensions		
A 3.00 (76.2)	**B** 2.22 (56.5)	**B1** 2.13 (53.9)
C 4.42 (111.9)	**C1** 4.78 (121.6)	**D** 0.38 (9.4)
E 6.63 (168.5)	**E1** 7.28 (184.9)	

Inches (mm)

The P3RA102 Regulator is designed for applications that require high capacity and accurate process control. A poppet valve which is balanced by utilizing a rolling diaphragm, insures a constant output pressure even during wide supply pressure variations. Stability of regulated pressure is maintained under varying flow conditions through the use of an aspirator tube which adjusts the air supply in accordance with the flow velocity.

⚠ WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

Ordering Information

P3RA102	6	2	

Springs	
3	**0.5 to 30 PSIG**
4	**1 to 60 PSIG**
6	**2 to 150 PSIG**

Pipe Size
2 1/4" NPT

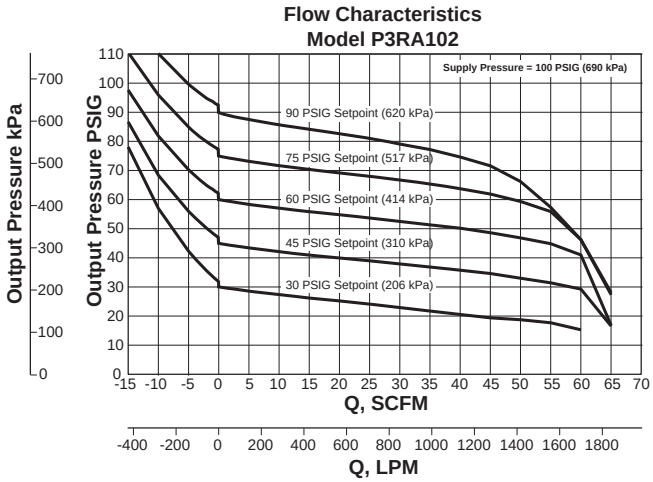
Options	
Blank	**No Options**
H	BSPP
N	Non-Relieving

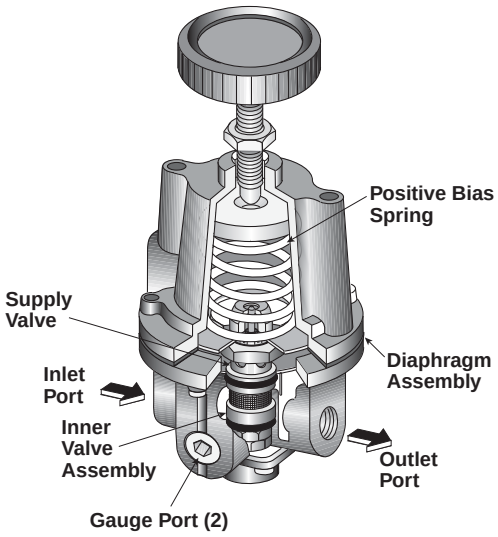
Note: Other Spring Ranges, Port Sizes, and Options Available. Please Consult Factory

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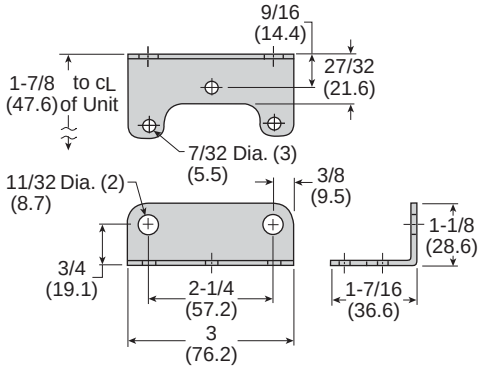
Operating Principles

The P3RA102 Series regulator use the force balance principal to control the movement of the Valve Assembly that controls the output pressure. When the regulator is adjusted for a specific set point, the downward force of the Positive Bias Spring moves the Diaphragm Assembly downward. The Supply Valve opens and allows air to pass to the Outlet Port. As the set point is reached, the downward force exerted by the Positive Bias Spring is balanced by the force of the downstream pressure that acts on the Diaphragm Assembly. The resultant force moves the Supply Valve upward to reduce the flow of air to the Outlet Port.

Outlet pressure is maintained as a result of balance between forces acting on the top and bottom of the Diaphragm Assembly.

P3RA102 Kits & Accessories

Mounting Bracket Kit –
Zinc Plated Steel PS09921



Service Kits –
0 to 200 PSIG, Relieving PS12125-1
0 to 200 PSIG, Non-relieving PS12125-4

Tamper Resistant Kit PS12165

Specifications

Supply Pressure ..... 500 PSIG, (35.0 bar), (3500 kPa) Maximum

Flow Capacity –
40 SCFM (68 m^3/HR) @ 100 PSIG, (7.0 bar), (700 kPa) Supply and 20 PSIG, (1.5 bar), (150 kPa) Setpoint

Exhaust Capacity –
5.5 SCFM (9.35 m^3/HR) where Downstream Pressure is 5 PSIG, (.35 bar), (35 kPa) above 20 PSIG, (1.5 bar), (150 kPa) Setpoint

Supply Pressure Effect –
Less than 0.1 PSIG, (.007 bar), (.7 kPa) for 100 PSIG, (7.0 bar), (700 kPa) change in Supply Pressure

Sensitivity ..... .125" (.005 PSIG) (.32 cm) Water Column

Ambient Temperature .....-40°F to +200°F, (-40°C to 93°C)

Hazardous Locations –
Acceptable for use in Zones 1 and 2 for Gas Atmosphere: Groups IIA and IIB and Zones 21 and 22 for Dust Atmospheres

Materials of Construction

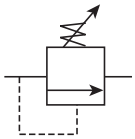
Body and Housing ..... Aluminum

Diaphragms ..... Buna N on Dacron (Standard Unit Only)

Trim .....Brass, Zinc Plated Steel

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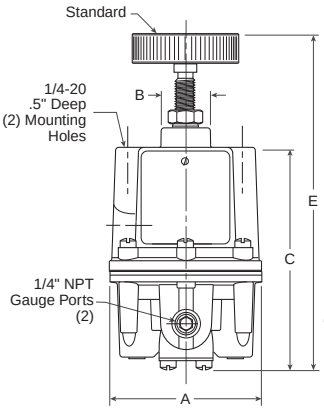
P3RA102BP Relief Valve – High Precision



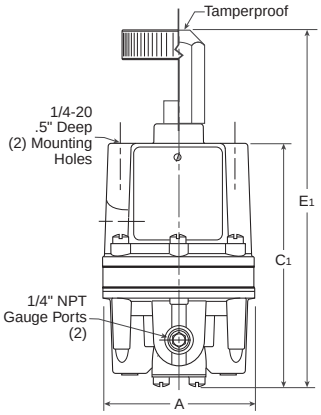


Features

- Control sensitivity of .125" (.32) water column allows use in precision applications.
- A separate Control Chamber and Aspirator Tube isolate the diaphragm from the main flow to eliminate hunting and buzzing.
- Unit construction lets you service the P3RA102BP without removing it from the line.
- Mounting Bracket is available.



2 thru 200 PSIG Range



300 & 400 PSIG Range

P3RA102BP Regulator Dimensions		
A 3.00 (76.2)	**B** 0.97 (24.6)	**C** 4.19 (106.4)
C1 4.56 (115.9)	**E** 6.31 (160.3)	**E1** 6.75 (171.4)

Inches (mm)

The P3RA102BP is a high capacity relief valve that relieves excess pressure in a pneumatic system.

The P3RA102BP provides greater accuracy than standard relief valves over a narrow pressure range. The P3RA102BP is an excellent choice for a wide range of precision applications.

⚠ WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

Ordering Information

P3RA102	6	2	BP	

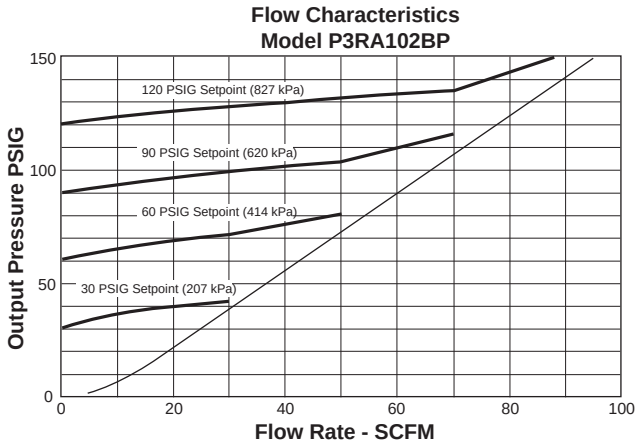
Springs	Pipe Size	Options	Options
3 0.5 to 30 PSIG	**2 1/4" NPT**	**BP Back Pressure**	**Blank No Options**
4 1 to 60 PSIG			H BSPP
6 2 to 150 PSIG			N Non-Relieving

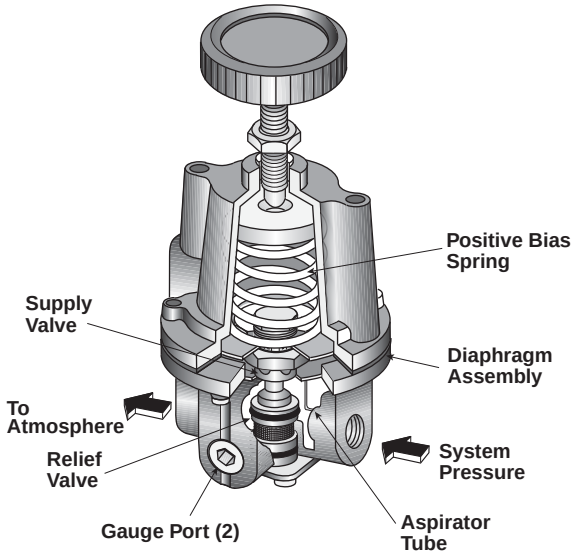
Note: Other Spring Ranges, Port Sizes, and Options Available.
Please Consult Factory

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Technical Information





C

Operating Principles

The P3RA102BP Regulator uses the force balance principle to open the Relief Valve and vent system pressure when the set point is exceeded.

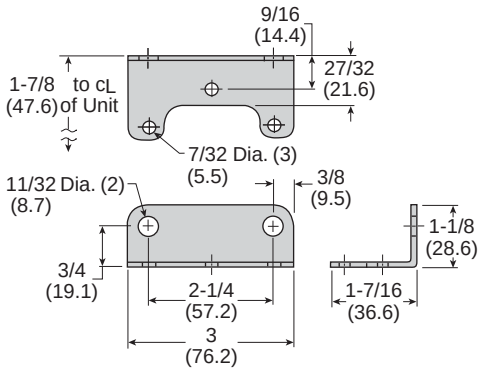
Downstream pressure is transmitted through the Aspirator Tube to the bottom of the Diaphragm Assembly. When you adjust the range screw for a specific set point, the Positive Bias Spring compresses and exerts a force on the top of the Diaphragm Assembly. As long as the pressure acting on the bottom of the Diaphragm Assembly produces a force less than the spring force acting on the top of the Diaphragm Assembly, the Relief Valve remains closed. When system pressure increases, the force on the bottom of the Diaphragm Assembly increases until it reaches the set point. When system pressure increases beyond the set point, the assembly moves upward, lifting the Relief Valve from its seat and vents the downstream air.

If downstream pressure decreases below the set point, the assembly moves downward closing the Relief Valve.

P3RA102BP Kits & Accessories

Mounting Bracket Kit –

Zinc Plated Steel PS09921



Service Kits –

0 to 200 PSIG, Standard PS12127-1

Tamper Resistant Kit PS12165

Specifications

Set Point Range	System Pressure (Maximum)
2-200 PSIG (0.15-14 bar) (15-1400 kPa)	300 PSIG (21.0 bar) (2100 kPa)
300-400 PSIG (21-28 bar) (2100-2800 kPa)	500 PSIG (35.0 bar) (3500 kPa)

Flow Capacity (SCFM) –
40 (68 m^3/HR) @ 100 PSIG, (7.0 bar), (700 kPa) System Pressure

Sensitivity ..... .125" (.005 PSIG) (.32 cm) Water Column

Ambient Temperature ..... -40°F to +200°F, (-40°C to +93°C)

Materials of Construction

Body and Housing ..... Aluminum

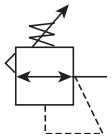
Trim ..... Zinc Plated Steel, Brass

Nozzle ..... Nitrile on Dacron

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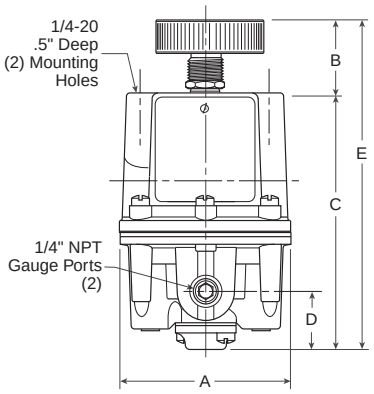
P3RA171 Vacuum Regulator – High Precision





Features

- Control sensitivity of .125" (.32) water column allows use in precision applications.
- Balanced supply valve minimizes effects of vacuum variation.
- Aspirator tube compensates for downstream pressure droop under ow conditions.
- Separate control chamber isolates the diaphragm from the main ow to eliminate hunting and buzzing.
- Construction allows servicing without removing from the line.



P3RA171 Regulator Dimensions		
A 3.00 (76.2)	**B** 1.13 (28.7)	**C** 4.83 (122.6)
D 1.00 (25.4)	**E** 5.96 (151.3)	

Inches (mm)

The P3RA171 is a high accuracy vacuum regulator that provides uniform vacuum regulation independent of vacuum supply changes and flow demand.

This unit has a diaphragm assembly with three springs to provide a more balanced loading of the diaphragm.

⚠ WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

Ordering Information

P3RA171	3	2	N	N	K	N

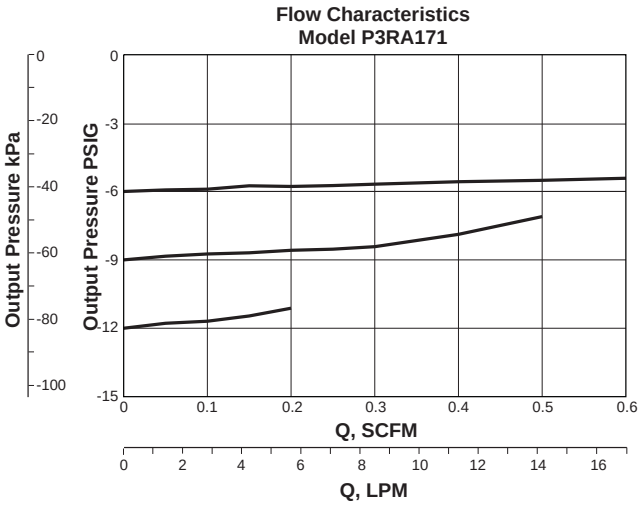
Springs	Pipe Size	Thread Type	Options	Options	Options
3 0 to 30 Hg	**2 1/4" NPT**	**N NPT**	**N Nitrile**	**K Knob Assembly**	**N Non-Relieving**

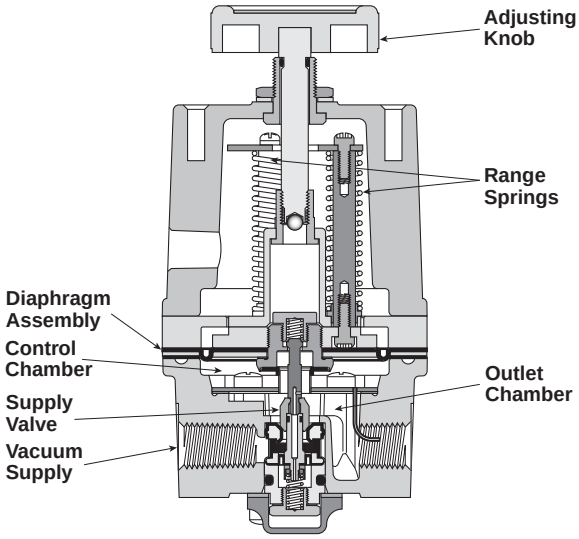
Note: Other Spring Ranges, Port Sizes, and Options Available. Please Consult Factory

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C

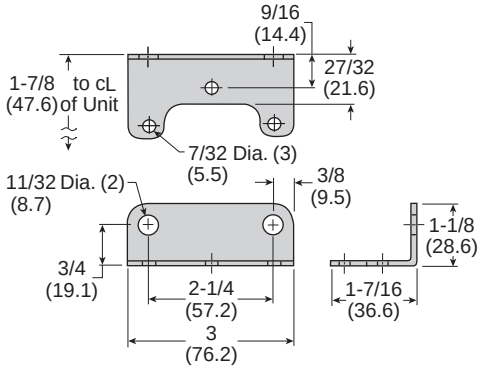
Operating Principles

The Model P3RA171 Series vacuum regulator uses the force balance principle to control the movement of the Valve Assembly that controls output vacuum.

When the regulator is adjusted for a speci c set point, the upward force of the Range Springs moves the Diaphragm Assembly upward. The Supply Valve opens and allows air to pass to the inlet port. As the set point is reached, the upward force exerted by the Range Springs is balanced by the force of the vacuum that pulls downward on the Diaphragm Assembly. The resultant force moves the Supply Valve downward to reduce the ow of air to the inlet port. Outlet vacuum is maintained as a result of balance between forces acting on the top and bottom of the Diaphragm Assembly.

P3RA171 Kits and Accessories

Mounting Bracket PS09921



Service Kits –
(Includes Diaphragm Assy, Valve Assy, Seat Assy & Gasket) –
0-30" Hg, Nitrile, Non-relieving PS20966-9

Tamper Resistant Kit PS20967-1

Specifications

Vacuum Supply (Max) .....29.92 Hg (760 torr)

Flow Capacity .....3 SCFM @ 650 torr Supply, 250 torr Setpoint

Sensitivity..... .125" (.005 PSIG) (.32 cm) Water Column

Ambient Temperature ..... -40°F to +200°F, (-40°C to +93°C)

Vacuum Supply Effect –
Less than 1 torr for 100 torr (.04 Hg for 3.94 Hg) Change in Vacuum Supply

Materials of Construction

Body and Housing..... Aluminum

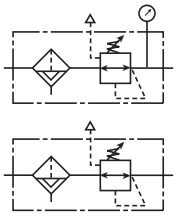
Trim.....Zinc Plated Steel, Brass

Elastomers ..... Nitrile

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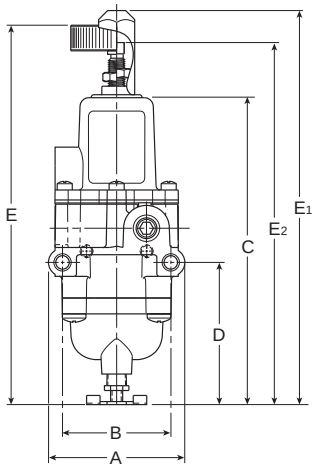
P3EA632 Filter / Regulator – Precision





Features

- The no-brass construction is well suited to harsh environments.
- Internal and external epoxy nish for superior corrosion resistance.
- Non-bleed design to reduce consumption.
- Integral Relief Valve.
- A Gauge Port provides convenient pressure gauge mounting.
- The standard 5-micron lter minimizes internal contamination.
- The Filter Dripwell contains a Drain Plug to easily drain trapped liquids.
- Standard Tapped Exhaust.
- Soft Relief Seat minimizes air loss.



P3EA632 Regulator Dimensions		
A 3.00 (76.2)	**B** 2.22 (56.5)	**B1** 2.13 (53.9)
C 4.42 (111.9)	**C1** 4.78 (121.6)	**D** 0.38 (9.4)
E 6.63 (168.5)	**E1** 7.28 (184.9)	

Inches (mm)

⚠ WARNING

Product rupture can cause serious injury.
Do not connect regulator to bottled gas.
Do not exceed maximum primary pressure rating.

Ordering Information

P3EA632	5	2	N	S	

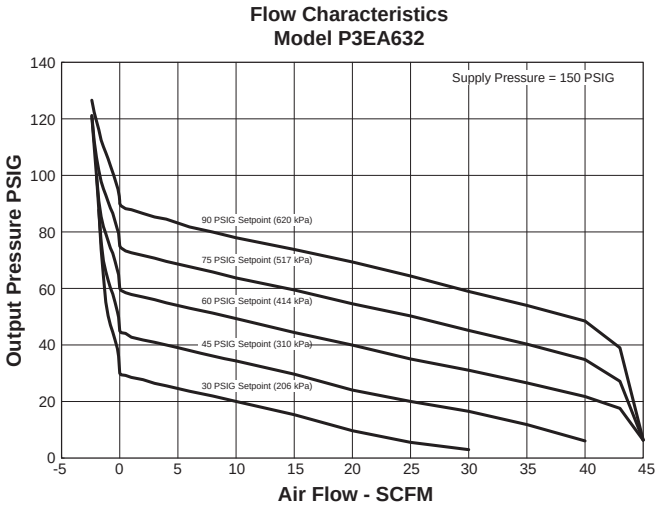
Springs	Pipe Size	Thread Type	Adjustment	Options
4 1 to 60 PSIG	**2 1/4" NPT**	**N NPT**	**S Screw (Std.)**	**Blank None**
5 2 to 120 PSIG		U BSPP	K Knob	
			T Tamperproof	

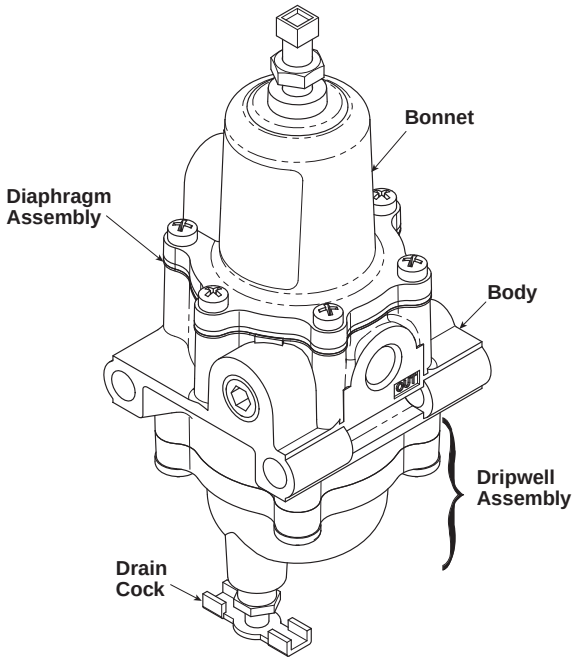
Note: Other Spring Ranges, Port Sizes, and Options Available.
Please Consult Factory

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Technical Information





C

Operating Principles

When you turn the Adjustment Screw to a specific setpoint, the Spring exerts a downward force against the top of the Diaphragm Assembly. This downward force opens the Supply Valve. Output pressure flows through the Outlet Port and the passage to the Control Chamber where it creates an upward force on the bottom of the Diaphragm Assembly.

When the setpoint is reached, the force of the Spring that acts on the top of the Diaphragm Assembly balances with the force of output pressure that acts on the bottom of the Diaphragm Assembly and closes the Supply Valve.

When the output pressure increases above the setpoint, the Diaphragm Assembly moves upward to close the Supply Valve and open the Exhaust Valve. Output pressure flows through the Exhaust Valve and out of the Exhaust Vent on the side of the unit until it reaches the setpoint.

P3EA632 Kits & Accessories

Service Kits –
1 to 60, 2 to 120 PSIG PS19968-NR

Tamper Resistant Kit PS12165

Specifications

Supply Pressure ..... 250 PSIG, (17 bar), (1700 kPa) Maximum

Flow Capacity (SCFM) .....25 (42.5 m^3/HR) @ 100 psig, (7 bar), (700 kPa) supply and 20 PSIG, (1.5 bar), (150 kPa) setpoint

Exhaust Capacity (SCFM).....0.8 (1.36 m^3/HR) where downstream pressure is 5 PSIG, (.35 bar), (35 kPa) above 20 PSIG, (1.5 bar), (150 kPa) setpoint. (0.8 SCFM for 120 # unit)

Maximum Supply Pressure ..... 250 PSIG, (14 bar), (1400 kPa)

Consumption .....Undetectable

Supply Pressure Effect..... Less than 1.25 PSIG, (.09 bar), (9 kPa) change for 100 psig, (7.0 bar), (700 kPa) change in supply pressure (1.90 psig for 120 # unit)

Sensitivity.....1.0" (.036 PSIG) (2.54 cm) Water Column

Temperature Range..... -40° F to + 160° F, (-40° C to + 71° C)

Materials of Construction

Body and Housing.....Epoxy Coated Aluminum

Trim..... Stainless Steel, Nickel Plated Steel

Elastomers .....Nitrile

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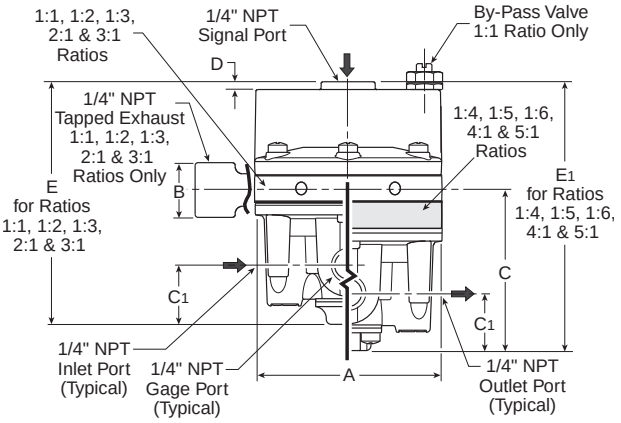
C

P3BA208 Pneumatic Input Signal Amplifier – Precision



Features

- The P3BA208 uses a pneumatic input signal to accurately control output pressure based on a predetermined ratio.
- A balanced Supply Valve minimizes the effects of supply pressure variation.
- An Aspirator Tube compensates downstream pressure droop under owing conditions.
- Optional Adjustable By-Pass Needle Valve allows tuning for optimum dynamic response (1:1 ratio only).
- Optional Fixed Negative Bias allows operation with pneumatic devices that cannot be adjusted to zero input pressure.
- A separate Control Chamber isolates the diaphragm from the main ow to eliminate hunting and buzzing.
- Unit construction allows servicing without removal.
- Mounting Bracket available.



P3BA208 Regulator Dimensions		
A 3.00 (76.2)	**B** .94 (23.8)	**C** 2.13 (53.9)
C1 .94 (23.8)	**D** .13 (3.2)	**E** 3.88 (98.3)
E1 4.31 (109.5)		

Inches (mm)

Ordering Information

P3BA208	1	2	

Pilot Ratio	
1	**1:1**
2	**1:2**
3	**1:3**

Pipe Size
2 1/4" NPT

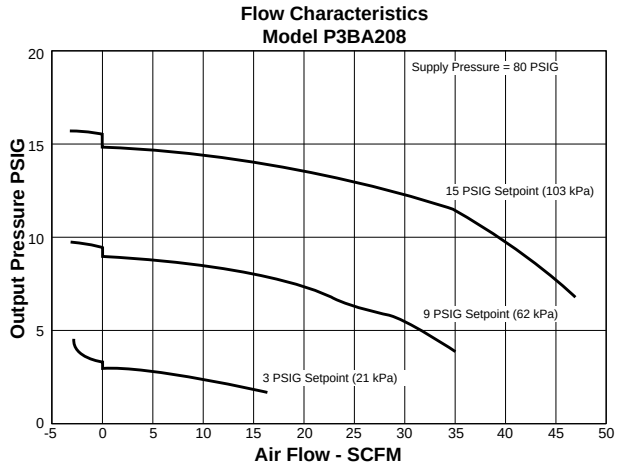
Options	
Blank	**No Options**
E	Tapped Exhaust
H	BSPP
I	By-Pass Valve

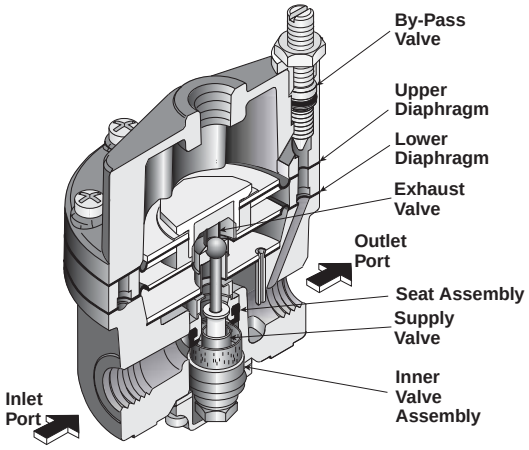
Note: Other Spring Ranges, Port Sizes, and Options Available. Please Consult Factory

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Technical Information





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Operating Principles

The P3BA208 Input Signal Amplifier is a pneumatic device capable of high flow and exhaust capacity. This device uses a force balance system to control the movement of the supply and exhaust valves.

At set point, the force due to signal pressure that acts on the top of the Upper Diaphragm balances with the force due to output pressure acting on the bottom of the Lower Diaphragm.

Materials of Construction

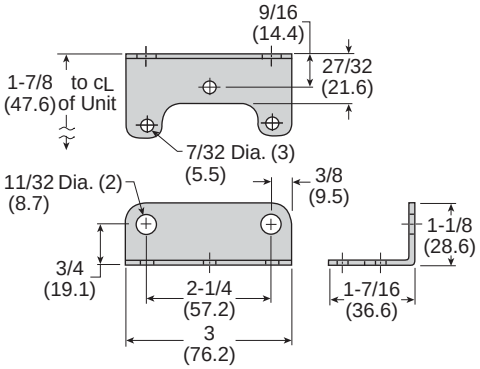
Body and Housing ..... Aluminum
Diaphragm..... Nitrile on Dacron Fabric
Trim.....Zinc Plated Steel, Brass

Specifications

	Signal:Output		
Ratio	**1:1**	**1:2**	**1:3**
Maximum Output Pressure, PSIG (bar)	150 (10.0)	150 (10.0)	150 (10.0)
Maximum Supply Pressure, PSIG (bar)	250 (17.0)	250 (17.0)	250 (17.0)
Flow Capacity SCFM, (m^3/HR) 100 PSIG, (7.0 bar) Supply, 20 PSIG, (1.5 bar) Output.	45 (76.5)	45 (76.5)	45 (76.5)
Exhaust Capacity SCFM, (m^3/HR) Downstream Pressure 5 PSIG, (.35 bar) Above Output Pressure Set Point of 20 PSIG, (1.5 bar).	11 (18.7)	11 (18.7)	11 (18.7)
Sensitivity (Water Column)	.250" (.64 cm)	.500" (1.27 cm)	.750" (1.9 cm)
Ratio Accuracy % of 100 PSIG, (7.0 bar) Output Span	1.0	1.0	1.0
% of Output Span with (7.0 bar) Input Span	—	—	—
Supply Pressure Effect, PSIG (bar) for change of 100 PSIG, (7.0 bar).	0.10 (.007)	0.20 (.014)	0.30 (.021)
Ambient Temperature, °F (°C)	-40 to +200 (-40 to +93)		

P3BA208 Kits and Accessories

Mounting Bracket PS09921
Service Kits –
1:1 Ratio PS19513-11
1:1 Ratio w/ By-Pass Valve.....PS19513-11I
1:2 Ratio PS19513-12
1:3 Ratio PS19513-13



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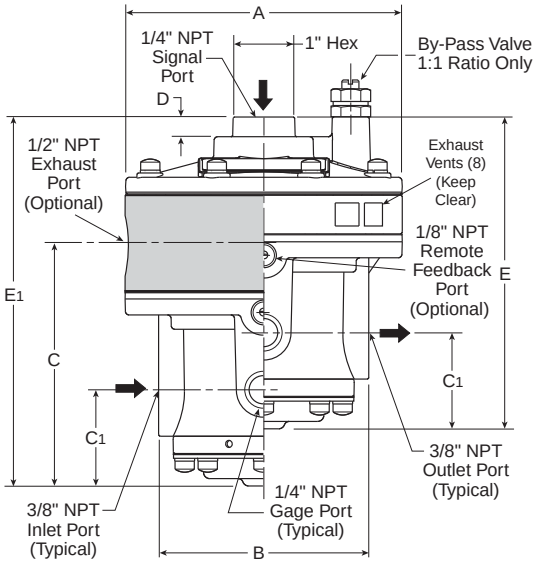
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P3BA45 Pneumatic Input Signal Amplifier – Precision



Features

- Five signal to output ratios meet most control element requirements.
- Control sensitivity of water column allows use in precision applications.
- Large Supply and Exhaust Valves provide high forward and exhaust flows.
- Soft Supply and Exhaust Valve seats minimize air consumption.
- A balanced Supply Valve minimizes the effect of supply pressure variation.
- An Aspirator Tube compensates downstream pressure droop under flow conditions.
- A separate Control Chamber isolates the diaphragm from the main flow to eliminate hunting and buzzing.
- Optional remote feedback port minimizes pressure drop at final control element under flow conditions.
- The optional adjustable By-pass Valve lets you tune for optimum dynamic response. (1:1 ratio only)
- Unit construction lets you service the P3BA45 without removing it from the line.



P3BA45 Regulator Dimensions		
A 4.50 (114.3)	**B** 3.41 (86.5)	**C** 3.86 (98)
C1 1.56 (39.6)	**D** .31 (7.9)	**E** 5.07 (128.8)
E1 5.83 (148.2)		

Inches (mm)

Ordering Information

P3BA45	1	4	A	

Pilot Ratio	
1	**1:1**
2	**1:2**
3	**1:3**

Pipe Size	
4	**1/2" NPT**
6	**3/4" NPT**

Type	
A	**45 Series**

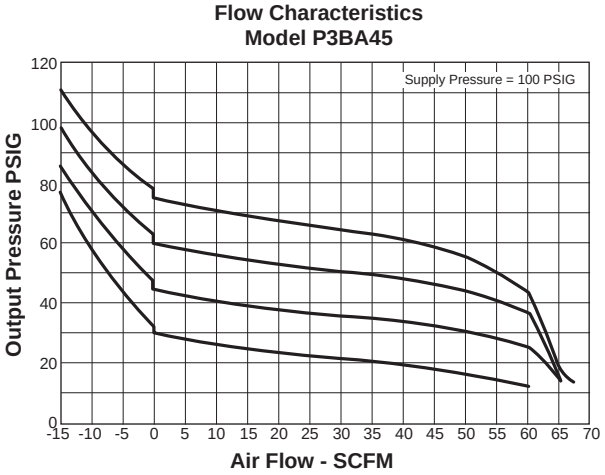
Options	
Blank	**No Options**
E	Tapped Exhaust
H	BSPP
I	By-Pass Valve

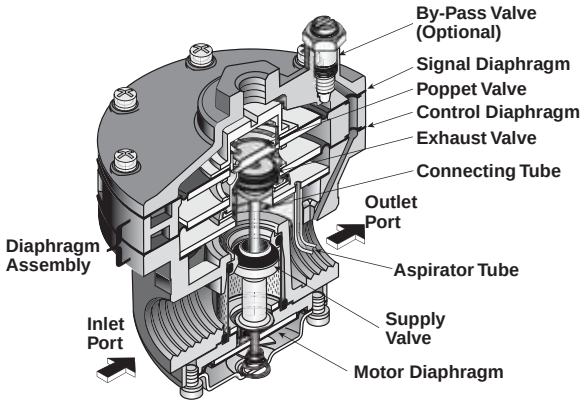
Note: Other Spring Ranges, Port Sizes, and Options Available. Please Consult Factory

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Technical Information





C

Operating Principles

When signal pressure on the top of the Signal Diaphragm creates a downward force on the Diaphragm Assembly, the Supply Valve opens. Output pressure flows through the Outlet Port and the Aspirator Tube to the Control Chamber to create an upward force on the bottom of the Control Diaphragm. When the setpoint is reached, the force of the signal pressure that acts on the top of the Signal Diaphragm balances with the force of the output pressure that acts on the bottom of the Control Diaphragm to close the Supply Valve.

When the output pressure increases above the signal pressure, the Diaphragm Assembly moves upward to close the Supply Valve and open the Exhaust Valve. Because the Poppet Valve is closed, pressure flows down the Connecting Tube to the bottom of the Motor Diaphragm. This pressure keeps the Supply Valve tightly closed while in the exhaust mode. The Poppet Valve opens and excess output pressure exhausts through the vent in the side of the unit until it reaches the setpoint.

Materials of Construction

Body and Housing ..... Aluminum
Diaphragm..... Nitrile on Dacron Fabric
Trim..... Zinc Plated Steel, Brass

Specifications

	Signal:Output		
Ratio	**1:1**	**1:2**	**1:3**
Maximum Output Pressure, PSIG (bar)	150 (10.0)	150 (10.0)	150 (10.0)
Maximum Supply Pressure, PSIG (bar)	250 (17.0)	250 (17.0)	250 (17.0)
Flow Capacity SCFM, (m^3/HR) 100 PSIG, (7.0 bar) Supply, 20 PSIG, (1.5 bar) Output	150 (255)	150 (255)	150 (255)
Exhaust Capacity SCFM, (m^3/HR) Downstream Pressure 5 PSIG, (.35 bar) Above 20 PSIG, (1.5 bar) Setpoint	40 (62.5)	40 (62.5)	40 (62.5)
Sensitivity (water column)	1.0" (2.54 cm)	2.0" (5.08 cm)	3.0" (7.62 cm)
Ratio Accuracy % of 100 PSIG, (7.0 bar) Output Span	3.0	3.0	3.0
% of Output Span with 100 PSIG (7.0 bar) Input Span	—	—	—
Supply Pressure Effect, PSIG (bar) for change of 100 PSIG, [7.0 bar], (700 kPa).	0.10 (.007)	0.20 (.014)	0.30 (.021)
Ambient Temperature, °F (°C)	-40 to +200 (-40 to +93)		
Hazardous Locations	Acceptable for use in Zones 1 and 2 for gas atmosphere; Groups IIA and IIB and Zones 21 and 22 for dust atmospheres.		

P3BA45 Kits and Accessories

Service Kits –

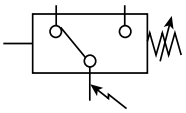
1:1 Ratio PS19549-1
1:1 Ratio w/ Tapped Exhaust..... PS19549-1E
1:3 Ratio PS19549-3
1:2 Ratio PS19549-2
1:1 w/ Tapped Exhaust, I Option..... PS19549-20E

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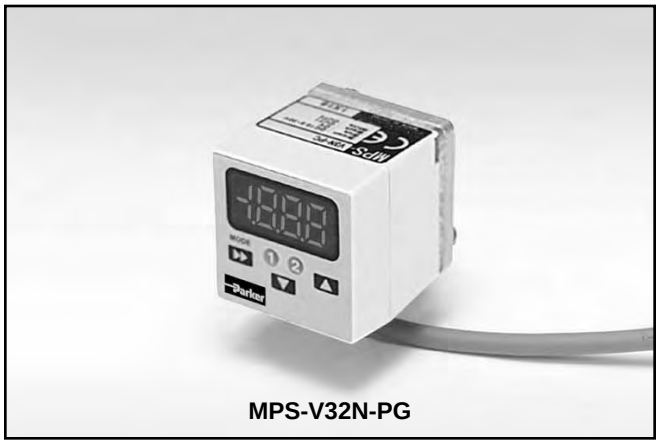
MPS-32 Pressure Sensor

Red ⟷ Green Display





MPS-V32N-PC



MPS-V32N-PG

Mounting Bracket MPS-ACCK1 Included with Sensors.



P3RA171 with MPS-V32N-PG

Features

- Pressure Ranges:
  - Vacuum Pressure 0 to -30 inHg
  - Positive Pressure 0 to 145 PSI
- Sensor Output:
  - 2 NPN or PNP Open Collector Transistor Output, 30VDC, 125mA
  - Optional Analog Output, 4 to 20mA
  - Optional Analog Output, 1 to 5VDC
- Switch Point and Window Comparator Mode
- 4 Selectable Units of Measure (mmHg, -bar, -kPa, inHg) (kgf/cm^2, PSI, bar, kPa)
- Output Response Time Less Than 2.0 Milliseconds
- RoHS
- Air and Non-Corrosive Gases
- Error Message

MPS-32 Programming Options

Outputs Change N.O. / N.C.	✔
Units of Measure change	✔
EZY Mode	
Hysteresis Mode	✔
Window Comparator Mode	✔
Auto Teach Mode	✔
Auto Surveillance Mode	✔
Display Refresh Settings	✔
Output Response Time	✔
Display Peak / Bottom Difference Value	✔
Special Display Features	✔
Lockout Option	✔
Peak Value at a Touch	✔
Bottom Value at a Touch	✔
Zero Reset	✔
Red / Green LED Display Options	✔
Peak Surveillance Mode	✔
Energy Savings Mode	
Scan Mode	
Password Lockout	
Error Output Mode	
Setting of Decimal Point	

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MPS-32 Ordering Numbers

Pressure Range	Port Size	Output Circuit	Electrical Connector	Part Number
0 to -30 inHg	1/8 NPSF*	PNP Sourcing	4 Pin, M8	**MPS-V32N-PC**
			2M Lead Wire	**MPS-V32N-PG**
		NPN Sinking	4 Pin, M8	MPS-V32N-NC
			2M Lead Wire	MPS-V32N-NG
0 to 145 PSI	1/8 NPSF*	PNP Sourcing	4 Pin, M8	**MPS-P32N-PC**
			2M Lead Wire	**MPS-P32N-PG**
		NPN Sinking	4 Pin, M8	MPS-P32N-NC
			2M Lead Wire	MPS-P32N-NG
		PNP Sourcing with 4-20ma	4 Pin, M8	**MPS-P32N-PCI**
		PNP Sourcing with 1-5VDC	4 Pin, M8	MPS-P32N-PCA

* Mounting Bracket Included

Specifications

Pressure Range		**Vacuum (V)**	**Positive (P)**
Units of Measure Display Resolution (with unit-switching function)		bar: 0.001 kPa: 0.1 mmHg: 1 inHg: 0.1	bar: 0.01 MPa: 0.001 kgf/cm²: 0.01 PSI: 1
Proof Pressure		-101 to 0 kPa	0 to 1 MPa
Media		Air & Non-Corrosive Gases	
Pressure Port		**(N)** 1/8" NPSF	
Operating Temperature		32 to 122°F (0 to 50°C)	
Storage Temperature		14 to 140°F (-10 to 60°C)	
Humidity		35 to 85% RH	
Electrical Connection		**(C)** 4-Pin, M8 Connector, **(G)** Grommet Open Lead	
Power Supply		12 to 24VDC ±10% or less, Ripple (Vp-p) 10% or less	
Display		3 + 1/2 Digit, 2 Color, 7-Segment LED	
Display Refresh		.1 to 3.0 Seconds, Variable (Factory set at 0.1)	
Control Output		NPN (Sinking), PNP (Sourcing), Open Collector, max 125mA, 2 Output	
Switch Output		Output Signal, NPN or PNP, Normally Open or Closed, LED Indicator	
Output Modes		Hysteresis or Window Comparator	
Response Time		2ms or less,(Variable 32, 128, 1024ms)	
Repeatability		± 0.2% of F.S. ± 1 digit or less	± 03% of F.S. ± 1 digit or less
Analog Output	**Voltage Output**	1 to 5VDC (1 ± 0.04V, 5 ± 0.04V); Outout Impedance 1kΩ; Linearity 0.5% of F.S.; Response Time 2ms or less	
	Current Output	4 to 20mA; Linearity ±0.5% of F.S. or less; Maximum Load Impedance 300Ω with Power Supply Voltage of 12V; 600Ω with Power Supply Voltage of 12V; Minimum Load Impedance 50Ω	
Thermal Error		32 to 122°F (0 to 50°C) 25°C (77°C) ± 2% of F.S. or less at range of 32 to 122°F (0 to 50°C)	
General Protection		IP50, CE Marked, EMC-EN61000-6-2: 2001	
Current Consumption		<80mA	
Vibration Resistance		10 to 150Hz, Double Amplitude 1.5mm, XYZ, 2 hrs.	
Shock Resistance		10G, XYZ	
Material		**Housing:** ABS (gray) , **Pressure Port:** Zinc Die-cast, **Diaphragm:** Silicone	
Mass		1.7 oz. (45g) (Not including cable)	

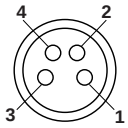
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Sensor Pin Out

Pin #

1 Brown: 24VDC
2 White: NPN / PNP Open Collector Output 2
3 Blue: 0VDC
4 Black: NPN / PNP Open Collector Output 1



Lead Wiring

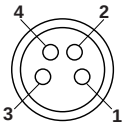


Sensor Pin Out with Analog Output

Current Output

Pin #

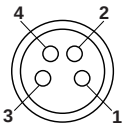
1 Brown: 24VDC
2 White: 4 to 20mA
3 Blue: 0VDC
4 Black: PNP Open Collector Output 1



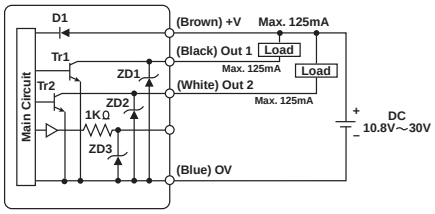
Voltage Output

Pin #

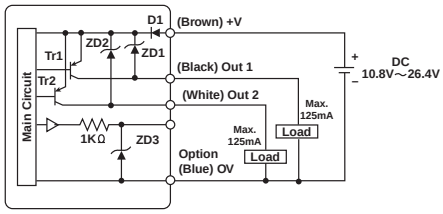
1 Brown: 24VDC
2 White: 1 to 5VDC
3 Blue: 0VDC
4 Black: PNP Open Collector Output 1



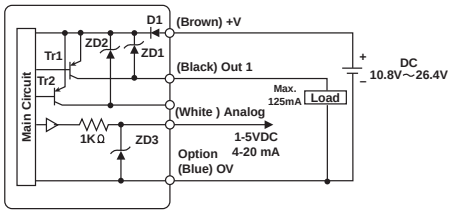
Internal Circuit for Open Collector and Analog Output Wiring



NPN (2 Open Collector Output)



PNP (2 Open Collector Output)



PNP (with Analog Output)

⚠ Cautions

The MPS-32 Pressure Sensor is designed to monitor pressure and is not a safety measure to prevent accidents.

The compatibility of the sensor is the responsibility of the designer of the system and speci cations.

Operating Environment

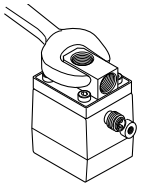
- Parker Sensors have not been investigated for explosion-proof construction in hazardous environments.
- Do not use with ammable gases, liquids, or in hazardous environments.
- Avoid installing the sensor in locations where excessive voltage surges could damage or affect the performance of the sensor.

Operations

- Dedicate a power supply of 10.8 to 26.4VDC to the sensor and set the ripple to Vp-p10% or less. Avoid excessive voltage. Avoid voltage surges.
- A small amount of internal voltage drop is possible. Ensure the power supply minus any internal voltage drop exceeds the operating load.
- Verify the operating media is compatible with the speci ed sensor. Check the chemical make-up, operating temperatures, and maximum pressure ranges of the system before installing.
- Installation of air dryer system is recommended to remove moisture.

Installation

- Never insert an object into the pressure port other than an appropriate uid connector.
- Avoid short-circuiting the sensor. Connect the brown lead to V+ and blue lead to 0V.
- Do not connect the output lead wires (black / white) to the power supply.
- Outputs not being used should be trimmed and insulated.
- Install as shown using the metal mounting bracket.



Error Messages

Display	Description	Solutions
Err	Zero Reset Error	Reset Zero Below 3% of F.S.
Er1	System Error (Internal)	Contact Factory
CE1	Over current of Output 1	Load current exceeds maximum 125mA.
FFF –FF	Applied pressure exceeds pressure range	Apply pressures within the rating of the sensor

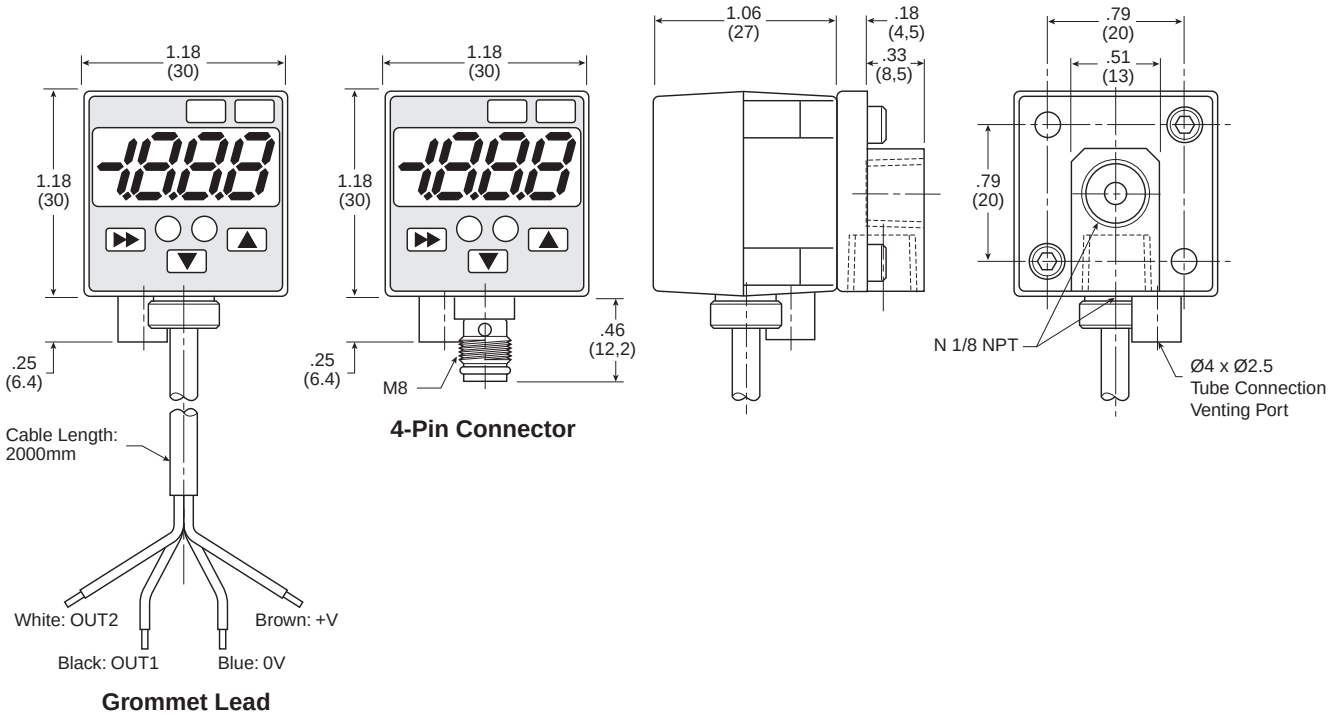
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Dimensions

N

1/8" Female

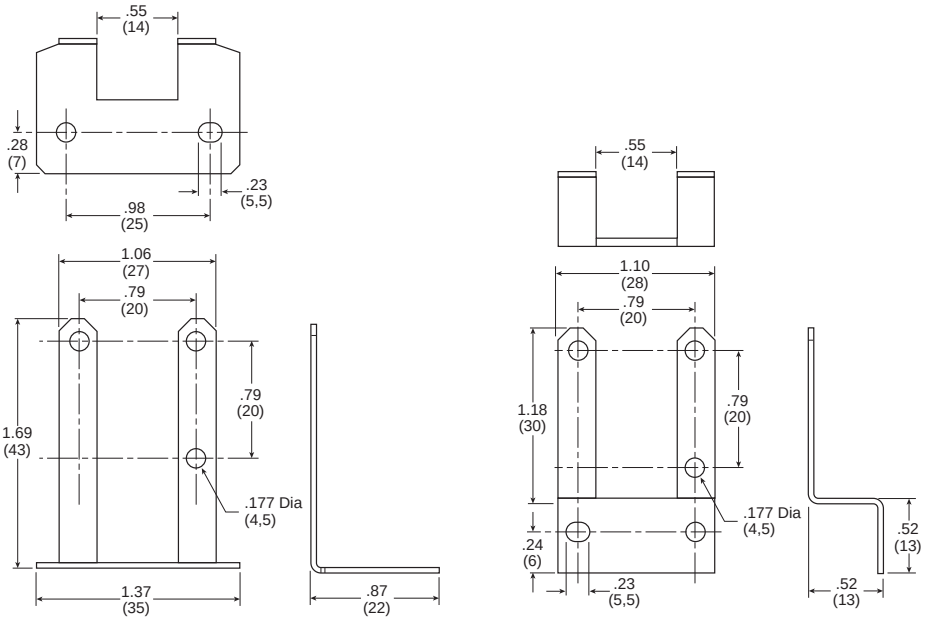


Grommet Lead

4-Pin Connector

MPS-ACCK1

Mounting Brackets (Included)



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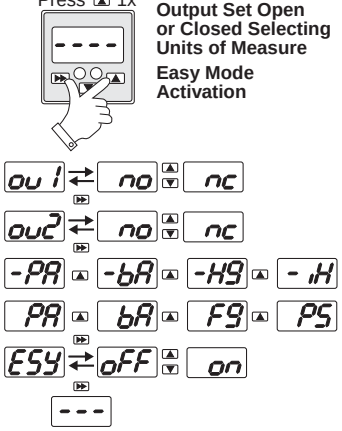
See page C38 for Symbol Explanation

C

1 Hold ⏩ Press ▲ 1x

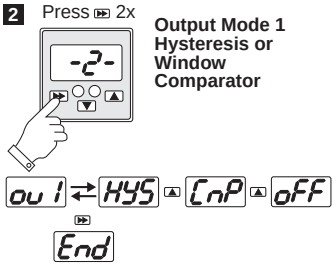
Output Set Open or Closed Selecting Units of Measure

Easy Mode Activation



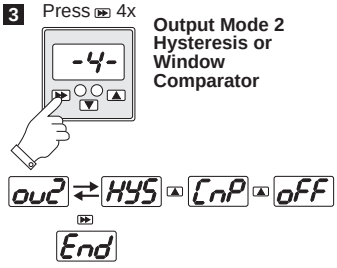
2 Press ⏩ 2x

Output Mode 1 Hysteresis or Window Comparator



3 Press ⏩ 4x

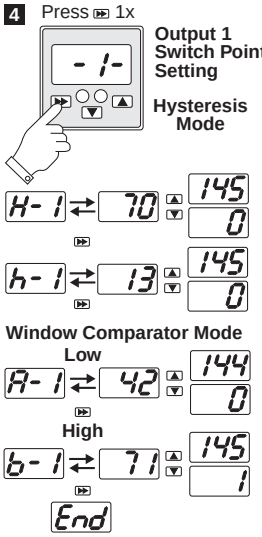
Output Mode 2 Hysteresis or Window Comparator



4 Press ⏩ 1x

Output 1 Switch Point Setting

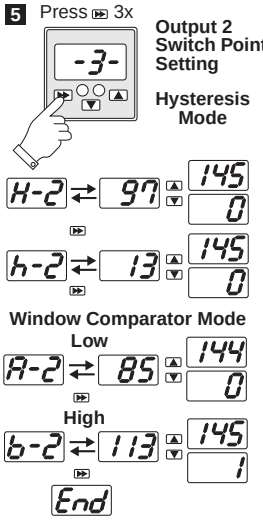
Hysteresis Mode



5 Press ⏩ 3x

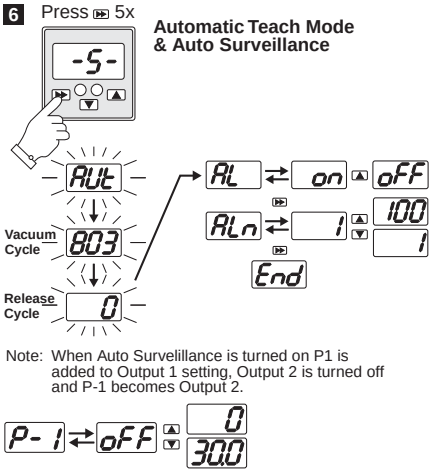
Output 2 Switch Point Setting

Hysteresis Mode



6 Press ⏩ 5x

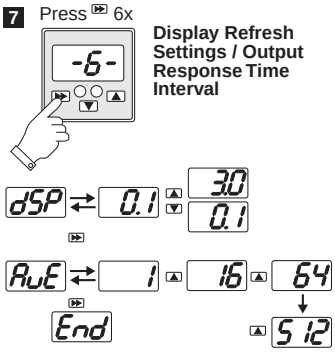
Automatic Teach Mode & Auto Surveillance



Note: When Auto Surveillance is turned on P1 is added to Output 1 setting, Output 2 is turned off and P-1 becomes Output 2.

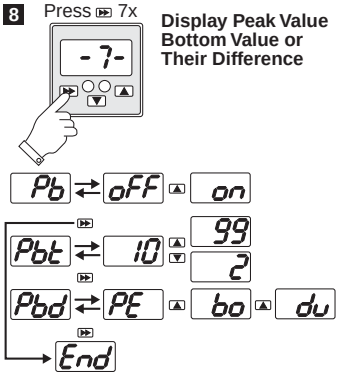
7 Press ⏩ 6x

Display Refresh Settings / Output Response Time Interval



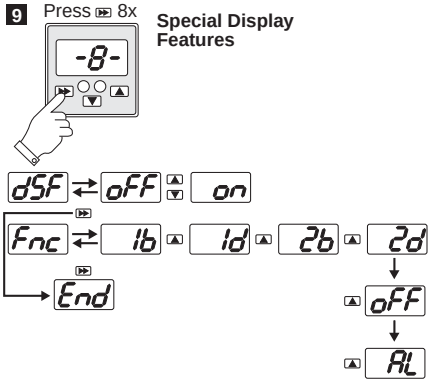
8 Press ⏩ 7x

Display Peak Value Bottom Value or Their Difference



9 Press ⏩ 8x

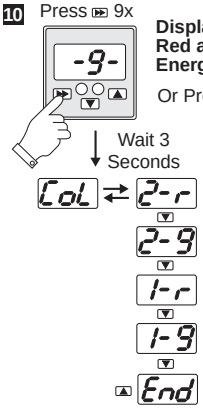
Special Display Features



10 Press ⏩ 9x

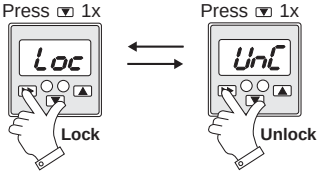
Display Color Choices Red and / or Green, Energy Save

Or Press ▼ 1x to Return

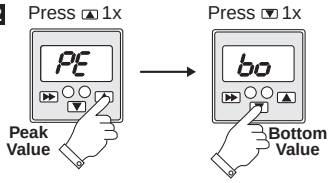


Output	On	Off
2-r	Red	Green
2-9	Green	Red
1-r	Red	Red
1-9	Green	Green

11 Hold ⏩ Press ▼ 1x

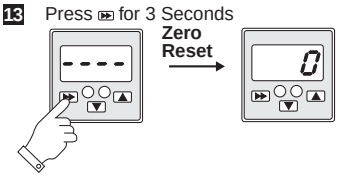


12 Press ▲ 1x



13 Press ⏩ for 3 Seconds

Zero Reset



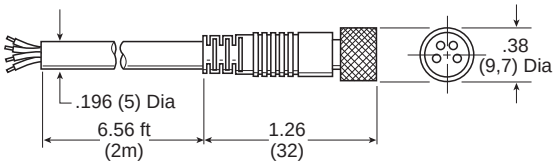
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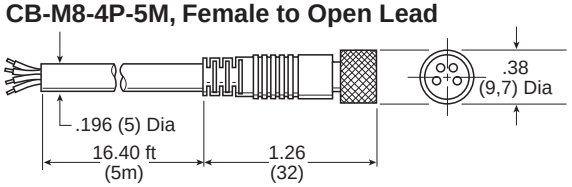
Accessories

Cables

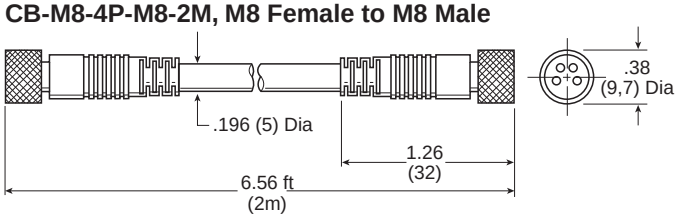
CB-M8-4P-2M, Female to Open Lead



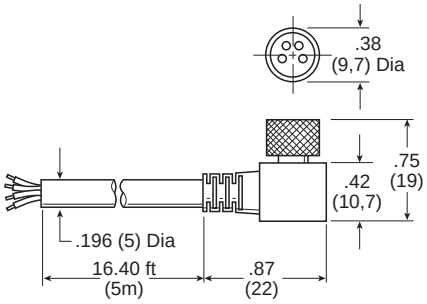
CB-M8-4P-5M, Female to Open Lead



CB-M8-4P-M8-2M, M8 Female to M8 Male

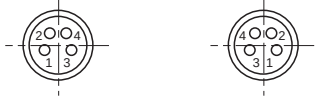


CB-M8-4P-5M-90, Female to Open Lead



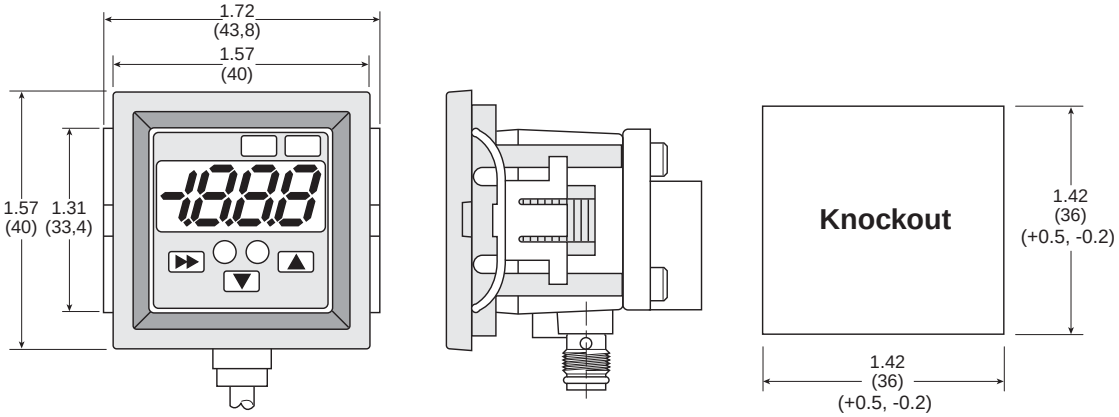
Pin Out Connection

Female Interface 4-Pin, M8	Male Interface 4-Pin, M8



Cable Pin	Color
1	Brown
2	White
3	Blue
4	Black

MPS-ACCH7
Panel Mounting Bracket



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C

ou1		Output 1
ou2		Output 2
ou3		Output 3
ou4		Output 4
nc		Output Normally Closed (Passing)
no		Output Normally Open (Non-Passing)
-PA	PA	Pressure Units (Pascal). Negative Units for Vacuum Sensors
-bA	bA	Pressure Units (Bar). Negative Units for Vacuum Sensors
-H9	H9	Pressure Units (mm.Hg). Negative Units for Vacuum Sensors
-iH		Pressure Units (in.Hg). Negative Units for Vacuum Sensors
-F9	F9	Pressure Units (kgf/cm²). Negative Units for Vacuum Sensors
PS		Pressure Units (PSI)
ESY		Easy Mode. Sensor will only allow changes to set points
oFF		Off, or Energy Saving Display; reduces current consumption of Sensor
on		On
HYS		Hysteresis Mode. Select Hysteresis Set Point and Hysteresis Range
CnP		Windows Comparative Mode Select High and Low Set Point
H-1		Hysteresis Mode Set Point. Output 1
H-2		Hysteresis Mode Set Point. Output 2
h-1		Hysteresis Mode. Hysteresis Range Output 1
h-2		Hysteresis Mode. Hysteresis Range Output 2
A-1		Windows Comparative Mode Low Set Point Output 1
b-1		Windows Comparative Mode High Set Point Output 1
A-2		Windows Comparative Mode Low Set Point Output 2
b-2		Windows Comparative Mode High Set Point Output 2
AUt		Automatic Teach Mode. Automatically sets Outputs 1 and 2 while cycling system. Output 1 set to Hysteresis Mode, Output 2 set to Window Comparative Mode
AL		Auto Surveillance Mode On/Off. Set after Automatic Teach
ALn		Auto Surveillance based on cycles times. Provides output if Peak Value is not obtained in a specified number of cycles. (1-100)
dSP		Display Refresh Setting. Display updates from .1 to 1 sec. .3 sec factory set. Does not affect Sensor Response Time
AvE		Output Response Time. Multiples the sensor response time. Increases sensor response time. (Anti-chatter Mode)
Pb		Pressure Value Display Mode. Displays Pressure for a specific time period and then updates for next time period
Pbt		Time Range for Pressure Value Display Mode
Pbd		Value Setting for Pressure Value Display Mode
PE		Display Peak Value over selected time range
bo		Display Bottom Value over selected time range
du		Display Difference over selected time range
dSF		Display Function Mode. On/Off
Fnc		Display Function. Selects display types.
1b		Display blinks pressure when Output 1 is Passing Normal when Output 1 is Non-Passing
2b		Display blinks pressure when Output 2 is Passing Normal when Output 2 is Non-Passing
1d		Display shows pressure when Output 1 is Passing Display shows special screen when Non-Passing
2d		Display shows pressure when Output 2 is Passing Display shows special screen when Non-Passing
SEt		Select Switch Output setting for MPS-31
CoL		Color Setting for MPS-31
Pot		MPS-4, Port Reference Selection
A		MPS-4, Display change of B port to A port static
b		MPS-4, Display change of A port to B port static
Ab		MPS-4, Display change of A port to change of B port
P1		MPS-7, Pressure Range Selection Vacuum
P2		MPS-7, Pressure Range Selection Low Pressure
P3		MPS-7, Pressure Range Selection Positive Pressure
P4		MPS-7, Pressure Range Selection Compound Pressure
SAvE		MPS-7, Energy Savings Mode, reduces current consumption
P-1		MPS-7, Peak Surveillance
oPt		Digital Input Sensors Only. Digital Input Mode for remote Zero reset of sensors
din		Digital Input
dch		Digital Channel
Scn		MPS-7 Scan Mode. Sensor scans and displays each channel for 3 sec.
Loc		Locked. Sensor programs cannot be changed
UnL		Unlocked. Sensor programs can be changed
Zero Reset		Sets Sensors reference point to current atmospheric conditions

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Proportional Regulators

"P3HPA" / "P3KNA" Series – Electronic
"PAR™-15" Series – Programmable

Section D

D



"P3HPA" / "P3KNA" Series
0 to 10 volt, 4 to 20mA.....D3-D22
"PAR™-15" Series
Digital Binary Regulator D23-D32

Bold text part numbers are standard.
Standard text part numbers may have longer lead times.

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"P3HPA" / "P3KNA" Series

Electronic Proportional Regulator

0 to 10 volt, 4 to 20 mA

D



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D

Man-Machine Interface

High Visibility LED Display

Easy to Read Characters

All Controls on the Same Face

Total Flexibility

User Friendly and Easily Accessible Software

One Basic Unit Suits All Customer Requirements

Special Applications

Food Version

Clean Line Design

Suitable for Washdown: IP65

Forced Exhaust

Compact and Light Weight

Small Envelope

Light Weight

Flexible Mounting Options

Stand-alone

Foot Bracket Mounting

DIN-Rail Mounting

Energy Saving

Low Watt Power Consumption

No Unnecessary Loss of Air in Steady State



Outstanding Performance

Very Fast Response Times

Full Flow Exhaust

Excellent Linearity

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Generic Industries



The new Proportional Regulator is designed to quickly and accurately adjust and maintain a set output pressure.

The unit will operate regardless of flow, in response to an electronic control signal. The media can be compressed air or an inert gas.

Applications for this technology are virtually unlimited; from paint spray control, paper manufacturing and printing to weaving and laser cutting control; in fact anywhere that requires accurate remote pressure control.

Automation

In the field of general automation, the need to control processes or movement via electronic signals is of paramount importance. The Proportional Regulator unit provides the facility to incorporate pressure control into a fully integrated control system.



Packaging and Food



The Packaging and Food industry provides another ideal area for application of the Electronic Proportional Regulator, where fine control of tension on wrapping foils and paper is required. The degree of control and the ability to manually change parameters makes this unit ideally suited to the varying requirements of this industry.

Automotive

Applications for this innovative product in the Automotive industry can be seen in major manufacturers' "body-in-white" lines.

The control of clamping and welding forces during panel assembly is an ideal application, also accurate control in paint dipping and spraying can be achieved.



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Why Proportional Technology ?

The Difference Between Open or Closed Circuit Control

Standard pressure regulators go a long way towards meeting customers needs. In most cases these regulators work well in general pneumatic and automation applications. However, sometimes the application calls for more precise pressure control. The effects of time, cycling, input, back pressure or pressure and flow variation can all cause inconsistencies in pneumatic systems. Proportional Regulators are designed to eliminate those inconsistencies.

D

Open Control Circuit

In a normal pressure regulated control system, the inlet pressure (p1) is converted into the output pressure (p2) by the regulator. The set pressure (set value) is usually manually set by adjusting the control knob and in normal circumstances the regulator maintains the output pressure (actual value).

No facility for monitoring the output pressure is provided and there is consequently no way of checking that the set value and the actual value are the same. Also, no account is taken of external influences such as air consumption by the system, which can drastically alter the actual value.

Closed Loop Control Circuit

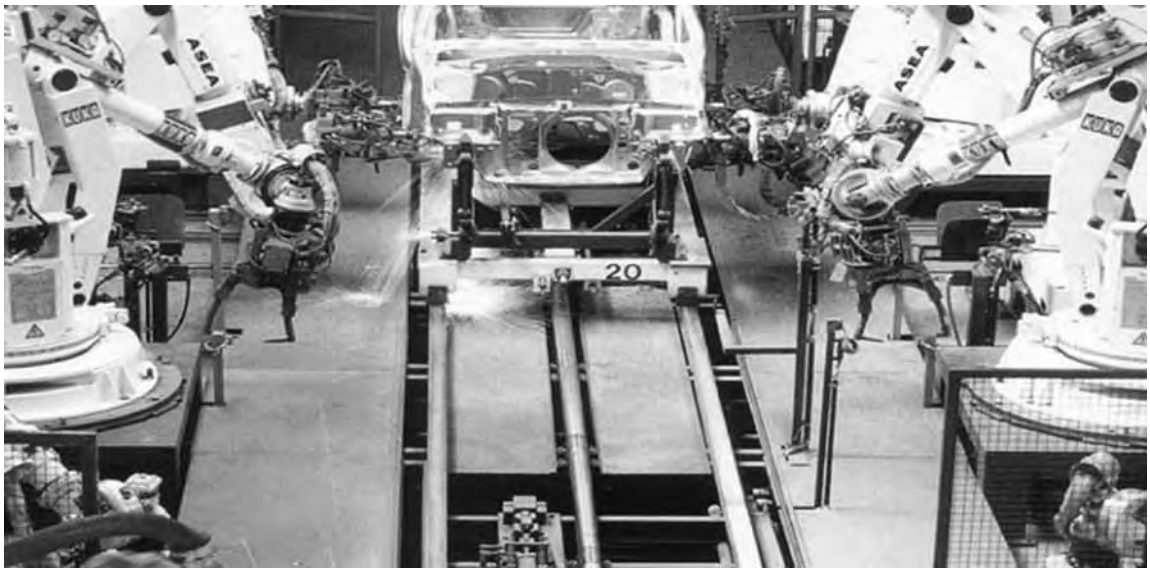
The input signal (Electronic Control Signal) is converted into the output value (P2 Output Pressure). This output value is continuously measured and compared with the input signal. If they are different, the unit adjusts the output value to correspond to the set value, to close the loop.

Proportional Pressure Regulators

The Proportional Regulators provide all the advantages of a closed circuit regulated system. When a set value is defined via the input signal (e.g. 0-10 V), the pressure regulator sets the corresponding output pressure (e.g. 0-150 PSI/0-10 bar). At the same time the integrated pressure sensor measures the actual pressure at the unit's outlet (actual value).

If the electronic regulation system finds that the actual value has deviated from the set value, it immediately corrects the actual value. This is a continuous process ensuring fast, accurate pressure regulation.

Typical Application in Automotive Body in White Welding Pressure Control



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Ordering Information

P3	HPA	9	2	A	D	2	V	D	1	A
		Port Type	Port Size	Version	Pressure Range	Power Supply	Control Signal	Output	Input Connector	Eng. Level

HPA 1/4"
KNA 1/2"

Port Size

2	**1/4"**
4	**1/2"**

Power Supply

2	**24 Volts**

Input Connector

1	**M12 (4-Pin)**

Port Type

1*	G Thread (BSP) Female
9	**NPT Female**

* Available on Request.

Pressure Range

Z	0-2 bar (0-29 PSI)
D	**0-10 bar (0-145 PSI)**

Control Signal

V	**0-10 V ***

* Factory setting is 0-10 V control signal. 4-20 mA control signal available via parameter 4 on keypad.

Output

D	**Digital, PNP**
M	4 to 20 mA Fixed
N*	NPN or 0 to 10V
P*	PNP or 0 to 10V

* Selectably by means of parameter 6.

Version

A	**Bottom Exhaust**
B*	Side Exhaust
F*	Food Version
E*†	Forced Exhaust

* Available on Request.

† When the supply voltage is lost, the unit will automatically exhaust the regulated pressure to 0 PSIA.

1) Digital PNP output only, no analog output selectable.

2) Digital PNP and analog 0 - 10V outputs selectable by means of Parameter 6. (Factory default 0-10V)

3) Digital NPN and analog 0 - 10V outputs selectable by means of Parameter 6. (Factory default 0-10V)

4) Analog 4-20mA output only.

Note: On all Analog outputs, the F.S. value can be adjusted by means of Parameter 8.

Note: P3KNA modular mounting for use with Moduflex European FRL only.

D

P3HPA / P3KNA Kits

Seal Kit (Valve Seat, Cover Seal) 3538200

Valve Kit (2 Valves, Screws, Cover Seal) 3538100

Cable (M12, 4-Pin Female Connection with 2m Cable).....CB-M12-4P-2M

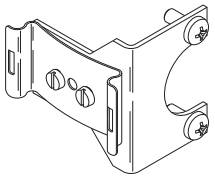
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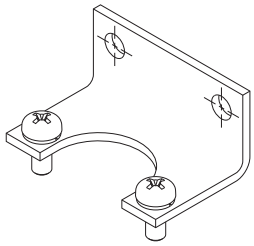
Port Size	Order Code	Control Signal	Output Signal	Output Pressure
1/4	P3HPA92AZ2VD1A	0-10 V	Digital, PNP Only	0-29 PSIG (0 -2 bar)
1/4	P3HPA92AD2VD1A	0-10 V	Digital, PNP Only	0-145 PSIG (0 -10 bar)
1/4	P3HPA92AZ2VP1A	0 - 10 V	Digital, PNP or 0-10V	0-29 PSIG (0 -2 bar)
1/4	P3HPA92AD2VP1A	0 - 10 V	Digital, PNP or 0-10V	0-145 PSIG (0 -10 bar)
1/4	P3HPA92AZ2VN1A	0 - 10 V	Digital, NPN or 0-10V	0-29 PSIG (0 -2 bar)
1/4	P3HPA92AD2VN1A	0 - 10 V	Digital, NPN or 0-10V	0-145 PSIG (0 -10 bar)
1/4	P3HPA92AZ2VM1A	0 - 10 V	4-20mA, Analog Only	0-29 PSIG (0 -2 bar)
1/4	P3HPA92AD2VM1A	0 - 10 V	4-20mA, Analog Only	0-145 PSIG (0 -10 bar)
1/4	P3HPA92AZ2AD1A	4-20mA	Digital, PNP Only	0-29 PSIG (0 -2 bar)
1/4	P3HPA92AD2AD1A	4-20mA	Digital, PNP Only	0-145 PSIG (0 -10 bar)
1/4	P3HPA92AZ2AP1A	4-20mA	Digital, PNP or 0-10V	0-29 PSIG (0 -2 bar)
1/4	P3HPA92AD2AP1A	4-20mA	Digital, PNP or 0-10V	0-145 PSIG (0 -10 bar)
1/4	P3HPA92AZ2AN1A	4-20mA	Digital, NPN or 0-10V	0-29 PSIG (0 -2 bar)
1/4	P3HPA92AD2AN1A	4-20mA	Digital, NPN or 0-10V	0-145 PSIG (0 -10 bar)
1/4	P3HPA92AZ2AM1A	4-20mA	4-20mA, Analog Only	0-29 PSIG (0 -2 bar)
1/4	P3HPA92AD2AM1A	4-20mA	4-20mA, Analog Only	0-145 PSIG (0 -10 bar)
1/2	P3KNA94AZ2VD1A	0-10 V	Digital, PNP Only	0-29 PSIG (0 -2 bar)
1/2	P3KNA94AD2VD1A	0-10 V	Digital, PNP Only	0-145 PSIG (0 -10 bar)
1/2	P3KNA94AZ2VP1A	0 - 10 V	Digital, PNP or 0-10V	0-29 PSIG (0 -2 bar)
1/2	P3KNA94AD2VP1A	0 - 10 V	Digital, PNP or 0-10V	0-145 PSIG (0 -10 bar)
1/2	P3KNA94AZ2VN1A	0 - 10 V	Digital, NPN or 0-10V	0-29 PSIG (0 -2 bar)
1/2	P3KNA94AD2VN1A	0 - 10 V	Digital, NPN or 0-10V	0-145 PSIG (0 -10 bar)
1/2	P3KNA94AZ2VM1A	0 - 10 V	4-20mA, Analog Only	0-29 PSIG (0 -2 bar)
1/2	P3KNA94AD2VM1A	0 - 10 V	4-20mA, Analog Only	0-145 PSIG (0 -10 bar)
1/2	P3KNA94AZ2AD1A	4-20mA	Digital, PNP Only	0-29 PSIG (0 -2 bar)
1/2	P3KNA94AD2AD1A	4-20mA	Digital, PNP Only	0-145 PSIG (0 -10 bar)
1/2	P3KNA94AZ2AP1A	4-20mA	Digital, PNP or 0-10V	0-29 PSIG (0 -2 bar)
1/2	P3KNA94AD2AP1A	4-20mA	Digital, PNP or 0-10V	0-145 PSIG (0 -10 bar)
1/2	P3KNA94AZ2AN1A	4-20mA	Digital, NPN or 0-10V	0-29 PSIG (0 -2 bar)
1/2	P3KNA94AD2AN1A	4-20mA	Digital, NPN or 0-10V	0-145 PSIG (0 -10 bar)
1/2	P3KNA94AZ2AM1A	4-20mA	4-20mA, Analog Only	0-29 PSIG (0 -2 bar)
1/2	P3KNA94AD2AM1A	4-20mA	4-20mA, Analog Only	0-145 PSIG (0 -10 bar)

P3HPA Mounting Brackets

Order Code	Description
P3HKA00MK	DIN Rail Mounting Kit
P3HKA00MF	Foot Bracket Mounting Kit



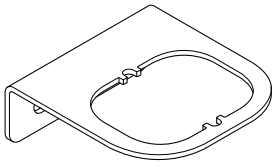
DIN Rail



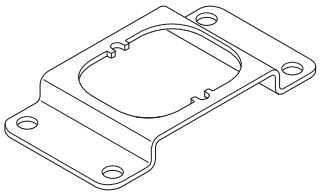
Foot Bracket

P3KNA Mounting Brackets

Order Code	Description
P3KKA00ML	L-Bracket Mounting Kit
P3KKA00MC	Foot Bracket Mounting Kit



L-Bracket



Foot Bracket

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Technical Information

Pneumatics

Working Media
Compressed air or inert gasses, filtered to 40µ.

Operating Pressure

	Max. Operating Pressure
2 bar unit	3 bar (43.5 PSI)
10 bar unit	10.5 bar (152 PSI)
Min. Operating Pressure	P2 Pressure + 0.5 bar (7.3 PSI)

Pressure Control Range
Available in two pressure ranges, 0-2 bar (0-29 PSI) or 0-10 bar (0-145 PSI). Pressure range can be changed through the software at all times. (parameter 19)

Temperature Range
32°F to 122°F (0°C to 50°C)

Weight
P3HPA 10 oz. (.28 kg)
P3KNA 23 oz. (.65 kg)

Air Consumption
No consumption in stable regulated situation.

Display
The regulator is provided with a digital display, indicating the output pressure, either in PSI or bar.

The factory setting is as indicated on the label, can be changed through the software at all times (parameter 14).

Electronics

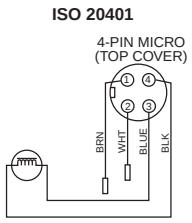
Supply Voltage
24 VDC +/- 10%

Power Consumption
1.1 W

Current Consumption
Max. 200 mA with no load

Control Signals
The electronic pressure regulator can be externally controlled through an analog control signal of 0-10 V, adjustable to 4-20 mA via parameter 4. See page D13.

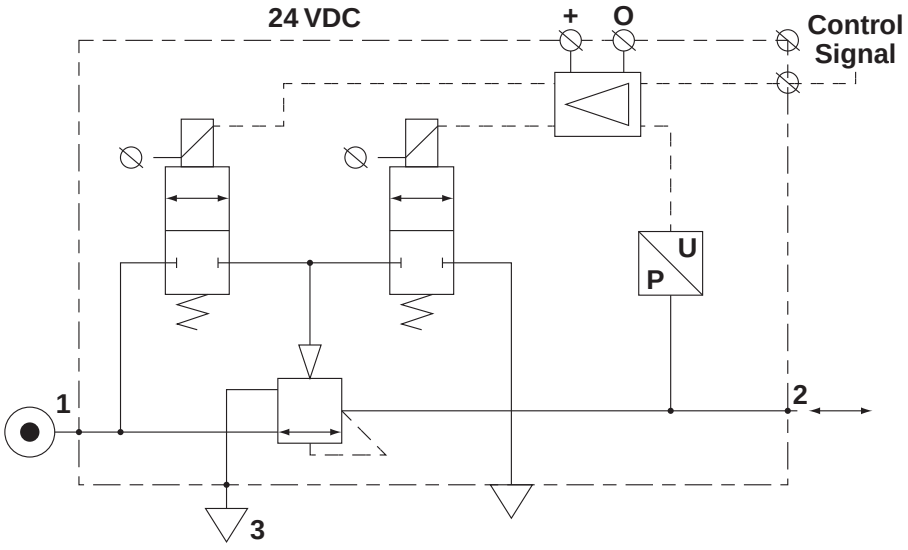
Connections
Central M12 male connector 4-pole.



The electrical connections are as follows:

Pin No.		Function	Color
1	24 V	Supply	Brown
2	0 to 10 V or 4 to 20mA	Control Signal Ri = 100k Ω	White
3	0 V (GND)	Supply	Blue
4	24 V	Alarm Output Signal	Black

Schematic



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Technical Information

Dead Band
The dead band is preset at 1.3% F.S.*, adjustable via parameter 13. See page D17.

Accuracy
Linearity: = < 0.3% F.S.*

Proportional Band
The proportional band is preset at 10% F.S.*

Fail-safe Operation
After interrupting the **power supply voltage**, the present output pressure is maintained at approximately the same level. After switching the power supply on again, the pressure can be adjusted immediately by giving a new control signal.

Full Exhaust
Complete exhaust of the regulator is defined as
P2 ≤ 1% Full Scale

Degree of Protection
IP65

EU Conformity
CE: standard
EMC: according to directive 89/336/EEC
The new pressure regulator is in accordance with:

EN 61000-6-1:2001
EN 61000-6-2:2001
EN 61000-6-3:2001
EN 61000-6-4:2001

These standards ensure that this unit meets the highest level of EMC protection.

Mounting Position
Preferably vertical, with the cable gland on top.

Materials
Parts in contact with the working media:

Core Housing .....Brass
Magnet Core ..... Steel
P3HP Housing ..... Techno Polymer
P3KN Housing .....Aluminum
Port Connections:
Standard Version .....Brass
Food .....Stainless Steel
Seats and Auxiliary Piston ..... Delrin, Brass
Solenoid Valve Housing ..... Techno Polymer
Solenoid Valve Poppet ..... FPM
Remaining Seals ..... NBR
Valve .....Polyurethane

Advanced Functionality

Pilot Valve Protection
When the required output pressure can not be achieved due to lack of input pressure, the unit will open fully and will display "NoP". Approximately every 10 seconds the unit will retry. The output pressure will then be approximately equal to the inlet pressure. As soon as the input pressure is back on the required level, the normal control function follows.

Safety Exhaust
Should the **control signal** fall below 0.1 volts, the valve will automatically dump downstream system pressure.

Fail-safe
When the supply voltage drops below 19 VDC, the electronic control reverts to the fail-safe mode. The last known output pressure is maintained at approximately the same level, depending upon air consumption. The digital display indicates the last known pressure setting.

When the supply voltage is reinstated to the correct level, the valve moves from the fail-safe mode and the output pressure immediately follows the control signal requirement. The display indicates the actual output pressure.

Input Protection
The unit has built-in protection against failure and burnout resulting from incorrect input value, typically:

The 24 VDC supply is incorrectly connected to the setpoint input, the display will show 'OL', as an overload indication. The unit will need to be rewired and, when correctly connected, will operate normally.

The overload indicator 'OL' will also appear should the wrong input value be applied or the wrong input value be programmed: (0-10 V instead of 4-20 mA or conversely

4-20 mA rather than 0-10 V). To correct this, a different set point value should be input, or the unit reprogrammed to correct the set point value acceptance (via parameter 4).

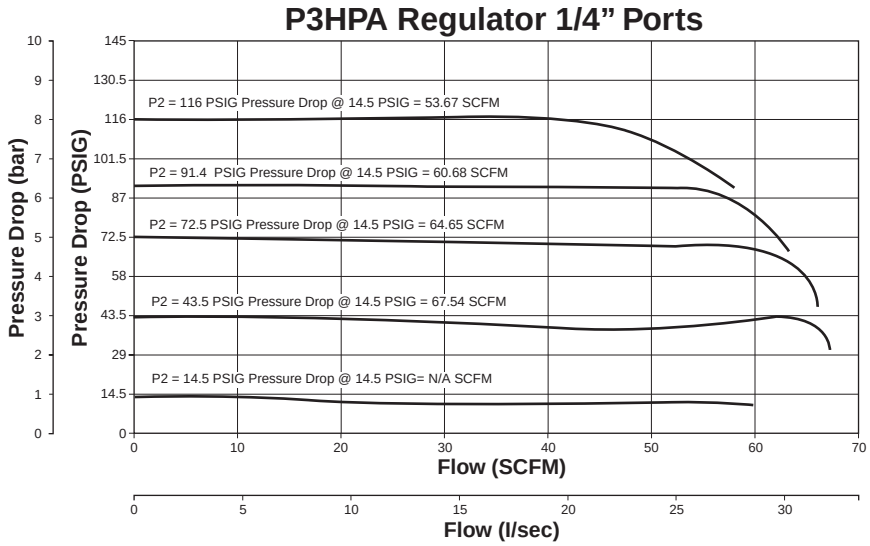
Response Times
To fill volume of 6.1 in^3 (100 cm^3), connected to the outlet of the regulator:

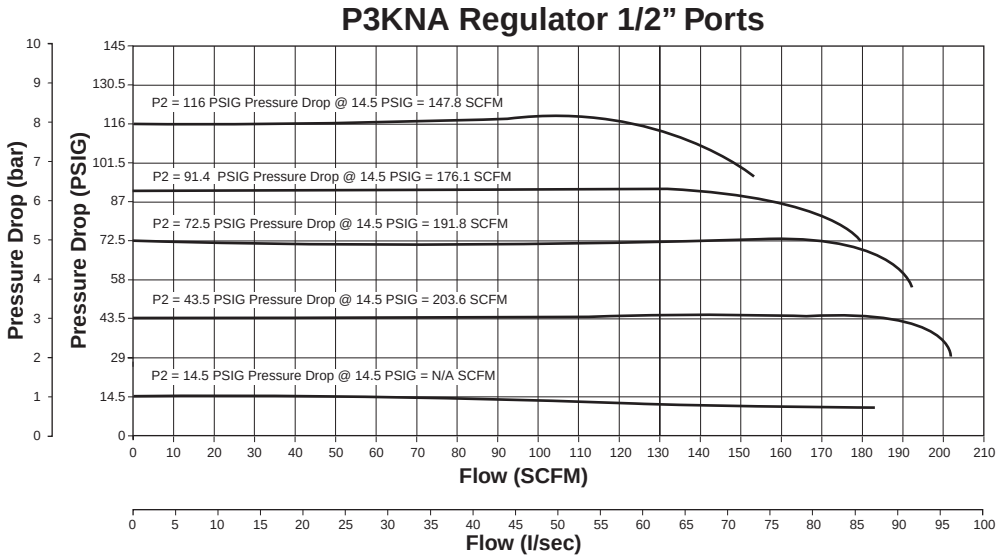
Pressure increase from 2 to 4 bar (30 to 60 PSI) .....30 msecs
Pressure increase from 1 to 6 bar (15 to 90 PSI) .....120 msecs
Pressure decrease from 4 to 2 bar (60 to 30 PSI) .....60 msecs
Pressure decrease from 6 to 1 bar (90 to 15 PSI) ....160 msecs

Settings
The regulator is pre-set at the factory. If required, adjustments can be made.

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Flow Characteristics





D

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How to Change Parameters

Pressing the Accept key for 3 to 6 seconds, will activate parameter change mode. The user can then select the parameters by pressing up or down key (display will show Pxx). When parameter number is correct, pressing accept again will enter parameter number (display will show parameter value).

Pressing the up or down key will change the parameter itself (display will flash indicating parameter editing mode). Pressing the accept key will accept the new parameter value (all digits will flash while being accepted).

After releasing all keys, the next parameter number will be presented on the display (you may step to the next parameter). When no key is pressed, after 3 seconds the display will show the actual output pressure.

Only parameter numbers 0, 4, 9, 14, 18, 19, 20, 12, 13, and 21 are accessible to edit. All other parameters are fixed.

Manual Mode

When keys DOWN and UP are pressed during startup, (connecting to the 24 V power supply) manual mode is activated. This means that the user is able to increase or decrease the output pressure of the Proportional Regulator, by pressing the UP or DOWN key. During this action the display will blink, indicating that the manual mode is activated.

Back to Factory Setting

After start up. (Power is on)

Parameter 0 = 3

Entering this value in parameter 0 will store the calibrated factory data into the working parameters. (Default calibration data is used)

Parameter Number 0 – Reset Back to Factory Settings

Step	1	2	3	4	5	
Press	acc 3-6 seconds	▼ or ▲	acc	▼ or ▲	acc	
Until Display Reads	Pxx	P00	000. Flashing Decimal	003. Flashing Decimal	003 Flashing	P01
Description	Accesses changeable parameters.	Accesses parameter no. 0.	Displays current parameter value.	Edits parameter. 3 = standard factory settings. If other than 3, use Up or Down Arrow and accept 3	Accepts and saves new parameter setting.	Sequences to next parameter.

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Set Control Signal

The unit is factory set for 0-10 V control signal. If 4-20 mA control signal is required, change parameter 4.

Parameter Number 4 – Set Control Signal in Volts or Milliamps

Step	1	2	3	4	5	
Press	acc 3-6 seconds	▼ or ▲	acc	▼ or ▲	acc	
Until Display Reads	Pxx	P04	001. Flashing Decimal	000. Flashing Decimal	000 Flashing	P05
Description	Accesses changeable parameters.	Accesses parameter no. 4.	Displays current parameter value. 1 = V 0 = mA	Edits parameter.	Accepts and saves new parameter setting.	Sequences to next parameter.

Parameter Number 6 – Set Output Signal

Step	1	2	3	4	5	
Press	acc 3-6 seconds	▼ or ▲	acc	▼ or ▲	acc	
Until Display Reads	Pxx	P06	001. Flashing Decimal	###. Flashing Decimal (Value 0, 1 or 2)	###. Flashing	P07
Description	Accesses changeable parameters.	Accesses parameter no. 6.	Displays current parameter value. 1 = m factory default for P3H with analog options	Edits parameter. 0 = digital (NPN or PNP) 1 = analog 0..10V 2 = analog 4..20 mA	Accepts and saves new parameter setting.	Sequences to next parameter.

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Parameter Number 8 – Adjust Span Analog Output Signal

Step	1	2	3	4	5	
Press	acc 3-6 seconds	▼ or ▲	acc	▼ or ▲	acc	
Until Display Reads	Pxx	P08	001. Flashing Decimal (For 2 bar versions value = 92)	###. Flashing Decimal (Value between 0 and 130)	###. Flashing	P09
Description	Accesses changeable parameters.	Accesses parameter no. 8.	Displays current parameter value.	Edits parameter.	Accepts and saves new parameter setting and implements the new analog signal span.	Sequences to next parameter.

Adjust Digital Display

If necessary, adjustments can be made to the digital display when using an external pressure sensor.

Parameter Number 9 – Adjust Digital Display Value (Pressure Calibration)

Step	1	2	3	4	5	
Press	acc 3-6 seconds	▼ or ▲	acc	▼ or ▲	acc	
Until Display Reads	Pxx	P09	###. Flashing Decimal	###. Flashing Decimal	### Flashing	P 10
Description	Accesses changeable parameters.	Accesses parameter no. 9.	Displays current digital display	Use up or down arrows and accept to adjust the display value if using an external pressure sensor.	Accepts and saves new parameter setting.	Sequences to next parameter.

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Set Pressure Scale

Units with NPT port threads are supplied with a factory set PSI pressure scale. Use parameter 14 to change scale to bar.

Parameter Number 14 – Set Pressure Scale in PSI or bar

Step	1	2	3	4	5	
Press	acc 3-6 seconds	▼ or ▲	acc	▼ or ▲	acc	
Until Display Reads	Pxx	P 14	001. Flashing Decimal	000. Flashing Decimal	000 Flashing	P 15
Description	Accesses changeable parameters.	Accesses parameter no. 14.	Displays current parameter value. 1 = PSI 0 = bar	Edits parameter.	Accepts and saves new parameter setting.	Sequences to next parameter.

D

Preset Minimum Pressure

If there is a need for a pre-set minimum pressure, use parameter 18. (Note: preset pressure is affected by % P19.)

Parameter Number 18 – Set Minimum Preset Pressure

Step	1	2	3	4	5	
Press	acc 3-6 seconds	▼ or ▲	acc	▼ or ▲	acc	
Until Display Reads	Pxx	P 18	000. Flashing Decimal	###. Flashing Decimal (value between 0 and 200)	### Flashing	P 19
Description	Accesses changeable parameters.	Accesses parameter no. 18.	Displays current parameter value. Incremental value is: 2 bar unit: x 2 mbar x % P19 10 bar unit: x 10 mbar x % P19	Edits parameter.	Accepts and saves new parameter setting.	Sequences to next parameter.

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Set Pressure Correction

Pressure correction allows the user to set a maximum pressure as a percentage of secondary pressure F.S.

Example: If F.S. is 10 bar, set parameter 19 to 50 for maximum preset pressure of 5 bar.

Pressure correction also affects the minimum preset pressure in parameter 18.

Example: If F.S. is 10 bar and parameter 18 is set to a value of 100 (1 bar), and parameter 19 is set to 50%, then the actual minimum preset pressure seen is 0.5 bar.

Parameter Number 19 – Set Maximum Preset Pressure

Step	1	2	3	4	5	
Press	acc 3-6 seconds	▼ or ▲	acc	▼ or ▲	acc	
Until Display Reads	Pxx	P 19	100. Flashing Decimal	# # #. Flashing Decimal (value between 0 and 100)	# # # Flashing	P20
Description	Accesses changeable parameters.	Accesses parameter no. 19.	Displays current parameter value. Incremental value is: % of F.S.	Edits parameter.	Accepts and saves new parameter setting.	Sequences to next parameter.

Behavior Control

The regulation speed of the pressure regulator can be modified by means of one parameter. (P 20)

The value in this parameter has a range from 0-5. A higher value indicates slower regulation speed, but will be more stable.

Parameter Number 20 – Set Behavior Control

Step	1	2	3	4	5	
Press	acc 3-6 seconds	▼ or ▲	acc	▼ or ▲	acc	
Until Display Reads	Pxx	P20	003. Flashing Decimal	# # #. Flashing Decimal (value between 0 and 5)	# # # Flashing	P21
Description	Accesses changeable parameters.	Accesses parameter no. 20.	Displays current parameter value.	Edits parameter 0 = custom set* 1 = fastest (narrow proportional band) 2 = fast 3 = normal 4 = slow 5 = slowest (proportional band is broad)	Accepts and saves new parameter setting.	Sequences to next parameter.

* When the value 0 is entered, you are able to create your own custom settings true parameters 12, 13 and 21.

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Fine Settings

Set Proportional Band

Proportional band is used for setting the reaction sensitivity of the regulator. The displayed value is X 10 mbar and has a range between 50 (0.5 bar) and 250 (2.5 bar).

Parameter Number 12 – Set Proportional Band (P20 Must be Set to 0)

Step	1	2	3	4	5	
Press	acc 3-6 seconds	▼ or ▲	acc	▼ or ▲	acc	
Until Display Reads	Pxx	P 12	100.	###. Flashing Decimal (value between 50 and 250)	### Flashing	P 13
Description	Accesses changeable parameters.	Accesses parameter no. 12.	Displays current parameter value. Incremental value is: x 10 mbar	Edits parameter.	Accepts and saves new parameter setting.	Sequences to next parameter.

Set Deadband

Deadband is the minimum limit of accuracy at which the regulator is set for normal operation. The displayed value is X 10 mbar and has a range between 4 (40 mbar) and 40 (400 mbar).

Parameter Number 13 – Set Deadband (P20 Must be Set to 0)

Step	1	2	3	4	5	
Press	acc 3-6 seconds	▼ or ▲	acc	▼ or ▲	acc	
Until Display Reads	Pxx	P 13	015.	###. Flashing Decimal (value between 4 and 40)	### Flashing	P 14
Description	Accesses changeable parameters.	Accesses parameter no. 13.	Displays current parameter value. Incremental value is x 10 mbar	Edits parameter.	Accepts and saves new parameter setting.	Sequences to next parameter.

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Proportional Effect

Sets the speed at which the regulator adjusts either filling or exhausting. The displayed value has a range between 5 (fastest regulation) and 100 (slowest regulation).

Parameter Number 21 – Set Proportional Effect (P20 Must be Set to 0)

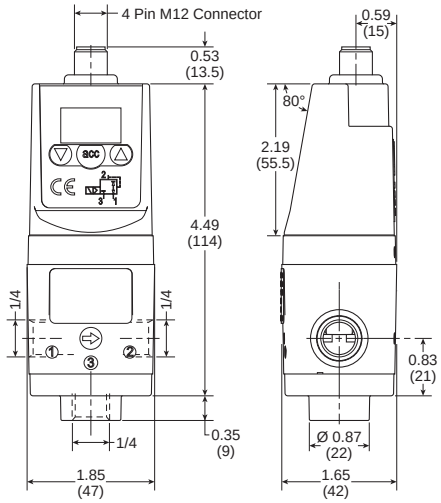
Step	1	2	3	4	5	
Press	acc 3-6 seconds	▼ or ▲	acc	▼ or ▲	acc	
Until Display Reads	Pxx	P21	010. Flashing Decimal	###. Flashing Decimal (value between 5 and 100)	### Flashing	P22
Description	Accesses changeable parameters.	Accesses parameter no. 21.	Displays current parameter value.	Edits parameter. 5 = fastest regulation 100 = slowest regulation.	Accepts and saves new parameter setting.	Sequences to next parameter.

Parameter Number 39 – Displays Current Software Version

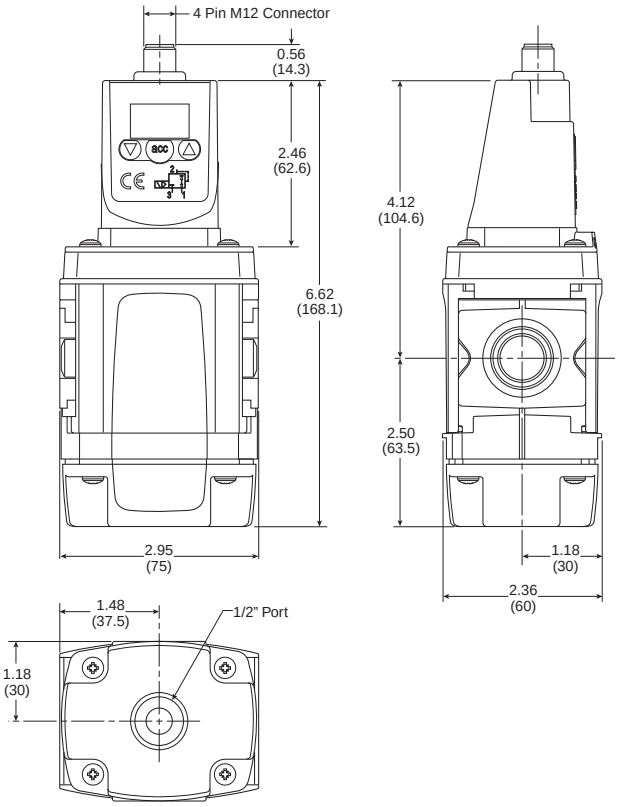
Step	1	2	3	
Press	acc 3-6 seconds	▼ or ▲	acc	
Until Display Reads	Pxx	P39	### Flashing Decimal	
Description	Accesses changeable parameters.	Accesses parameter no. 39.	Displays current parameter value. XXX = current software version	

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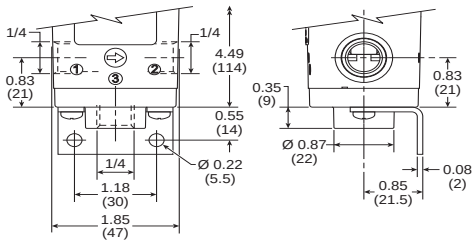
P3HPA Bottom Exhaust Version



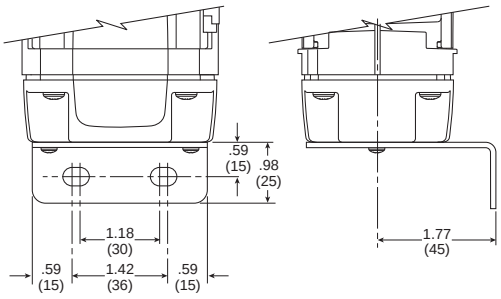
P3KNA Bottom Exhaust Version



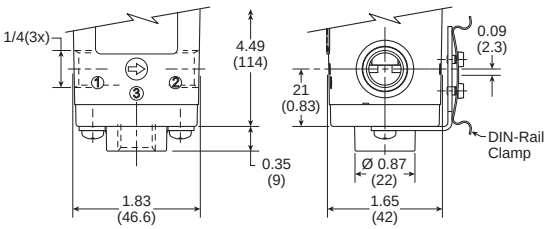
Foot Bracket



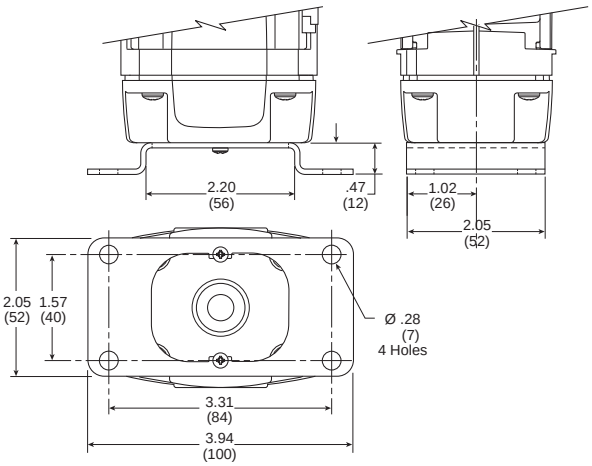
L Bracket



DIN Rail Bracket



Foot Bracket



Dimensions are in mm (Inches)

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Problem	Possible Reason	Solution
Display will not light up	No 24 volts power supply	Check if the wiring is connected according to the schematic wiring diagram
Unit will not, or not correctly respond to given setpoint	Wrong current applied (I.e. Volt instead of mA or mA instead of Volt	Change setpoint current or re configure the setpoint current through the software by changing parameter 4
		Check wiring if the setpoint signal lead is connected to the right pin within the male M12 connector (should be pin 2)
	Setpoint signal is not stable enough	Stabilize setpoint signal input
Display shows NoP.	Unit detects that required output pressure is higher than the supplied pressure	Adjust the inlet pressure to a higher value, preferably 0,5 bar higher than requested output pressure
		Give lower setpoint value which corresponds to a output pressure lower than the inlet pressure
	No inlet pressure at all	Connect port 1 to the supply pressure
Unit behavior is not considered normal	Faulty settings made in the parameters	Reset the unit to factory settings by using the green key function under parameter 0
Desired pressure can not be reached	Setpoint value to low	Increase setpoint value
	Pre-set pressure limit has been changed to a lower max. outlet pressure	Change max. outlet pressure back to re-quired pressure by changing parameter 19
	Supply pressure is to low	Increase supply pressure
Secondary side stays pressurized	Setpoint value is higher than 0,1 Volt	Lower your setpoint value, preferably to 0 Volts
	Pre-set pressure has been enabled to a certain pressure	Reset parameter 18 to 0
Display shows unrealistic value	Display maybe configured in the wrong value (bar instead of psi)	Check through parameter 14, if the display value is set on either psi or bar, if necessary change it to the required setting
Unit response time too slow or too quick	Volume behind the unit is either too big or too small	Adjust the regulating speed of the unit through parameter 20
Unit gives too much overshoot	Relation between volume and response me is out of balance	Adjust response time to a higher value through parameter 20, to achieve more ac-curate behavior
Unit is adjusting/regulating constantly	Air leakage in the system behind the unit	Resolve leakage
	Constant changing volume behind the unit	Unit needs to regulate to keep required pres-sure at the same level
		Try to minimize the volume changes
	"Deadband "area is set too small	Enlarge deadband setting through parameter 13 in the software (parameter 20 has to be set to 0 before changing parameter 13)
Can not enter software through touchpad	Unit is currently working/processing	Make sure that the unit is in steady state while activating the software
	Activating time is too short	Hold the accept button for at least 3 seconds
Display indicates 'OL'	Wiring not according to diagram (24 volt con-nected on the setpoint connection pin)	Rewire so that on the setpoint connection pin will be either 0-10v or 4-20mA
	Wrong setpoint value given in relation to programmed setpoint value acceptance	Change over setpoint value to either V or mA or Reprogram the unit to the correct setpoint value via parameter 4
Any other problem	Please consult factory	

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Glossary

Hysteresis – The mechanical limits of accuracy of the unit. The regulator cannot be adjusted within the inherent mechanical limits of the design.

Dead Band – The minimum limit of accuracy at which the regulator is set for normal operation. This band must be equal to, or exceed, the inherent design limits of the regulator or the hysteresis band.

Proportional Band – The band used for setting reaction sensitivity of the regulator. The regulator senses the excursion from the set pressure and adjusts response in relation to the degree of excursion beyond the dead band. This band must exceed the dead band of the unit.

Proportional Effect – The speed at which the unit approaches P2 (secondary pressure).

Sensitivity – The smallest change in the control signal, or feedback signal, to cause a change in regulated output pressure.

Repeatability – a measurement of how consistently the unit can reproduce an output pressure in relation to a specific set pressure.

Linearity – A measure of how closely the relationship of output pressure vs. the control signal deviates from a straight line function.

PNP Output – Referred to as a "Sourcing" open collector transistor output where the voltage sources towards 24VDC when activated.

NPN Output – Referred to as a "Sinking" open collector transistor output. The output sinks towards 0VDC when activated.

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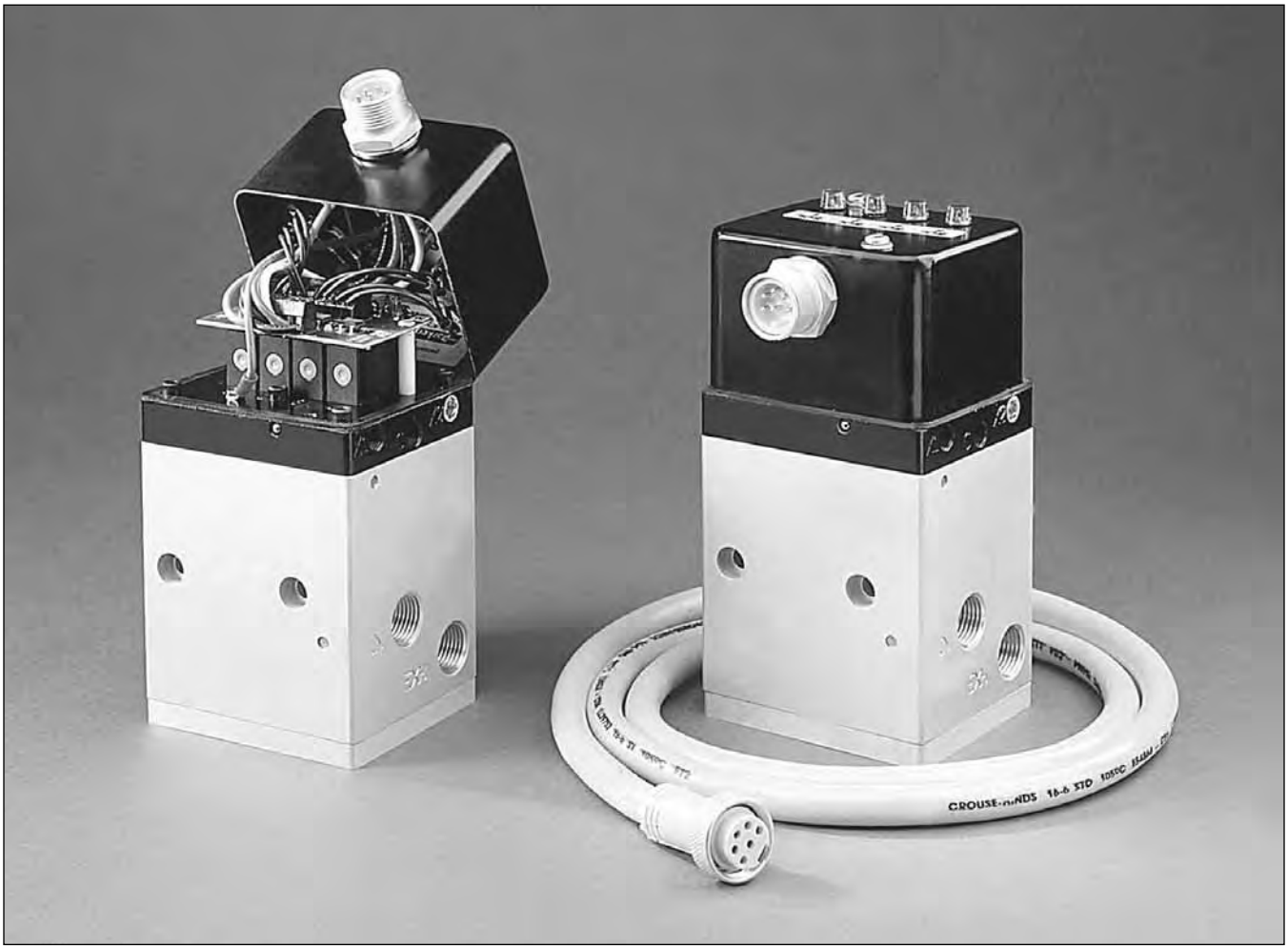
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"PAR-15" Series

Programmable Air Regulating Valve

Digital Binary Regulator

D



"PAR™-15" Series Basic Features D24
Model Number Index D25
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Features

PAR™-15 (Patent No. 4,630,632) is a unique 3-Way, programmable, air regulating valve that functions as a precise, high-flow, multi-purpose regulator.

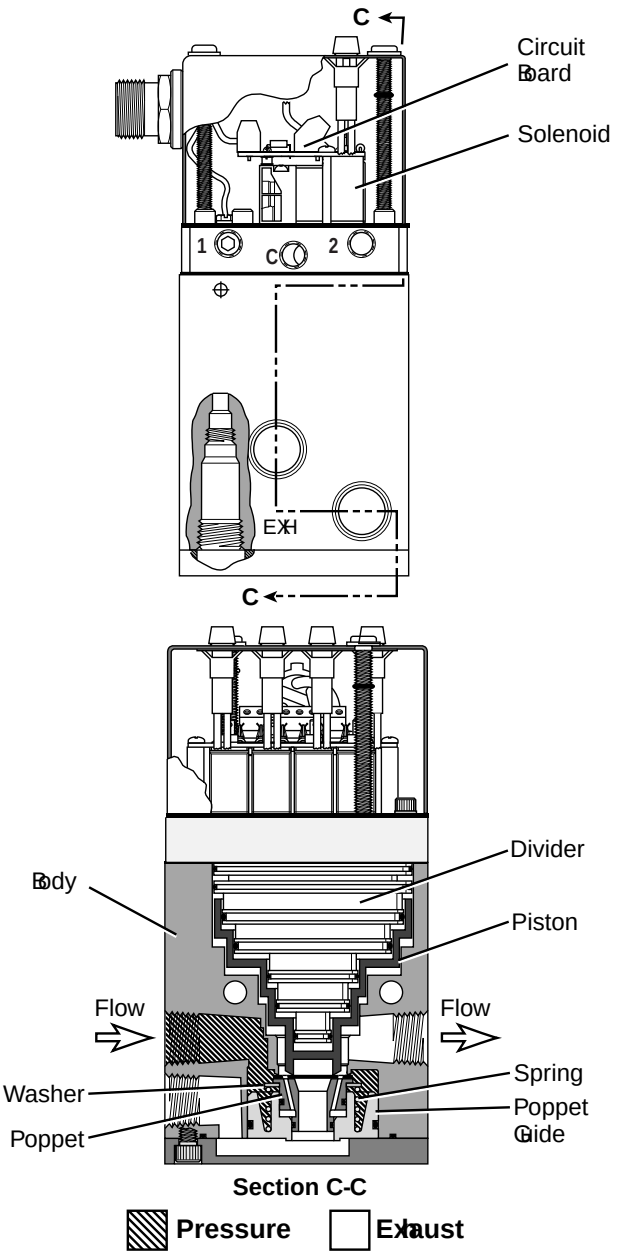
Signals from a computer, programmable controllers or from simple electrical switches, fed to the valve's four solenoids, control the division of a single inlet pressure into any one of fifteen equally spaced output pressures.

The valve's response is instant and repeatable, reducing the need for expensive feedback controls.

It goes far beyond the capabilities of conventional controls by providing a limitless range of application possibilities including cylinder pressure/stroke control, clamping, retracting, approach, flow, and impact.

PAR™-15 eliminates shock absorbers, increases tool life, saves air, and reduces workpiece damage.

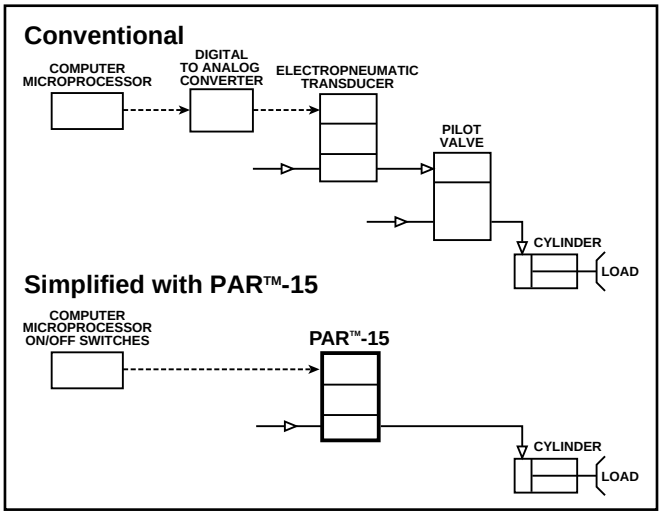
- Full flow capacity for direct air device operation.
- Quick, full flow exhaust.
- Instantly repeatable response.
- Air saving design, close crossover, non-constant bleed.
- Wide range of discrete output pressures.
- Normally closed or normally open operators.
- Compatible with computers and programmable controllers with digital solid state relay outputs.
- Meets NEMA 4 standard (6-Pin option only).



Electropneumatic System

A conventional system is usually composed by several electronic and pneumatic components as shown on the schematic. The cylinder which is moving a load is operated with a pilot valve which receives the instructions from an electropneumatic transducer. The transducer converts electronic signals to pneumatic signals. These electronic signals are usually of an analog type, but controllers/computer microprocessors send digital signals as outputs, therefore, a digital to analog signal converter is required.

The simplified schematic with the PAR™-15 is reduced to fewer components since the PAR™-15 takes the place of the digital to analog converter, the electropneumatic transducer, and the pilot valve. The benefits being fewer components, and less maintenance and downtime.



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Basic Series	Actuation	Port Size / Thread Type	Enclosure / Connector / Quadrant	Solenoid Type / Pilot Source	Voltage	Label / Temp Option	Engineering Level
W21	**5**	**4**	**2**	**1**	**83**	**L**	**B**

Basic Series

W21	PAR™-15 Version 2.0

Actuation

5	Solenoid Operated

Port Size / Thread Type

4	**1/2" NPT**

Voltage

72	24V/60Hz
75	12VDC
79	**24VDC**
83	**120/110V 60/50Hz**

Solenoid Type / Pilot Source

1	**Normally Closed / Internal Pilot**
3	Normally Closed / External Pilot
5	Normally Open / Internal Pilot
7	Normally Open / External Pilot

Label / Temp Option

Blank	**Standard Temperature**

Engineering Level

B	**Current**

Enclosure / Connector Quadrant

0	No Enclosure
1	Metal Enclosure with 7/8" Conduit Opening at Quadrant 2
2	**NEMA 4 Enclosure with 6-Pin Mini Connector Quadrant 2, Cord Included**
3	Metal Enclosure with 7/8" Conduit Opening at Quadrant 4
4	NEMA 4 Enclosure with 6-Pin Mini Connector Quadrant 4, Cord Included
5	NEMA 4 Enclosure with 6-Pin Mini Connector Quadrant 2, No Cord
6	NEMA 4 Enclosure with 6-Pin Mini Connector Quadrant 4, No Cord
B*	Lighted Enclosure with 6-Pin Mini Connector at Quadrant 2, Cord Included
C*	Lighted Enclosure with 6-Pin Mini Connector at Quadrant 2, No Cord
E	NEMA 4 Enclosure with 6-Pin Micro Connector at Quadrant 2, Cord Included
F	NEMA 4 Enclosure with 6-Pin Micro Connector at Quadrant 4, Cord Included
G	NEMA 4 Enclosure with 6-Pin Micro Connector at Quadrant 2, No Cord
H	NEMA 4 Enclosure with 6-Pin Micro Connector at Quadrant 4, No Cord
K*	Lighted Enclosure with 6-Pin Micro Connector at Quadrant 2, Cord Included
L*	Lighted Enclosure with 6-Pin Micro Connector at Quadrant 2, No Cord
M*	Lighted Enclosure with 6-Pin Mini Connector at Quadrant 4, Cord Included
N*	Lighted Enclosure with 6-Pin Mini Connector at Quadrant 4, No Cord
P*	Lighted Enclosure with 6-Pin Micro Connector at Quadrant 4, Cord Included
Q*	Lighted Enclosure with 6-Pin Micro Connector at Quadrant 4, No Cord

Theoretically, Quadrant 1 is defined as the 6-Pin Connector on the same face with the inlet port. Looking from the top down and rotating the enclosure clockwise 90° you get Quadrant 2 or 270° for Quadrant 4.

* Available in 24VDC and 120VAC Only.
Not NEMA 4 rated.

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No Enclosure



NEMA 4 Enclosure – 6-Pin Connector

Application

Pneumatic systems operating under multiple pressures, and requiring almost instantaneous pressure changes are good application cases for the PAR™-15. Usually the more pressures needed for a particular operation, the easier it is to justify the valve, since it will take the place of several pneumatic regulators and selector valves.

Among the most common applications are brakes and clutches, painting, printing feeds and tension, robotics, and spot welding.

Other Applications:

- Air Chucks
- Air Cylinder Control
- Air Winches
- Blow Molding Control
- Contact Force Control
- Conveyor Control
- Die Cushioning
- Dynamic Braking
- Fuel Control
- Hopper Control
- Robot Gripper Control
- Valve Positioning
- Variable Clamping
- Variable Pressure Processing
- Torque Control
- Wire Tensioning

Operation

Four solenoids are controlled by on/off signals that selectively divide any input pressure into any one of 15 equally spaced pressures plus zero. See the truth table.

Full flow exhaust permits instant reduction to any lower selected pressure or zero. High relief capacity quickly vents downstream overpressure. The output pressure will begin to change within 20 milliseconds after a change in the electrical input to one or more of the solenoids. However, the time which elapses until the output pressure reaches the new level will depend upon the volume of air, the size of the connection from the PAR™-15 valve and the magnitude of the pressure change.

A small regulator may be used to feed the external pilot port X1 on units with normally closed solenoid operators or X2 on units with normally open solenoid operators. The PAR™-15 valve will then divide this pressure independent of mainline supply pressure so long as the pilot regulator is set to a pressure below the mainline supply pressure. A regulated external supply will eliminate the effects of fluctuating mainline pressures. (NOTE: A regulator placed upstream of the inlet also eliminates the effects of fluctuating pressures).

The PAR™-15 is available with two types of output pressure regulation: increasing output and decreasing output. In the increasing output pressure regulation type, normally closed solenoid operators are used to divide the input pressure into 15 equal steps, ranging from 0 PSIG (all solenoid operators de-energized) to full line pressure (all solenoid operators energized). With the decreasing output pressure regulation type, normally open solenoid operators are used to divide the input pressure into 15 equal steps, but starting with full line pressure (all solenoid operators de-energized) and ending with 0 PSIG (all solenoid operators energized).

Model Selection Information

Solenoid Operated – Normally Closed – Internal Pilot*			Voltage/Cycle	Port Size	
No Enclosure	NEMA 4 Enclosure - 6-Pin Connector				
	Quadrant 2 †	Quadrant 4 †		Body	Pilot
W21540172	W21542172	W21544172	24V/60Hz	1/2"	1/8"
W21540175	W21542175	W21544175	12VDC	1/2"	1/8"
W21540179	W21542179	W21544179	24VDC	1/2"	1/8"
W21540183	W21542183	W21544183	110/120V / 50/60Hz	1/2"	1/8"

* Normally open and external pilot options also available.

† Theoretically Quadrant 1 is defined as the 6-Pin connector on the same face with the inlet port. Looking from the top down and rotating the enclosure clockwise 90° you get Quadrant 2 or 270° for Quadrant 4.

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Truth Table

Normally Closed Valves / Solenoids	Normally Open Valves / Solenoids			
Binary Input* 8 4 2 1	**Binary Input* 8 4 2 1**	**Proportion of Inlet Pressure**	**PSIG Output@ 75 PSIG Inlet††**	**PSIG Output@ 90 PSIG Inlet**
Pin Number † 5 3 2 1	**Pin Number † 5 3 2 1**			
0 0 0 0	1 1 1 1	0	0	0
0 0 0 1	1 1 1 0	1/15	5	6
0 0 1 0	1 1 0 1	2/15	10	12
0 0 1 1	1 1 0 0	3/15	15	18
0 1 0 0	1 0 1 1	4/15	20	24
0 1 0 1	1 0 1 0	5/15	25	30
0 1 1 0	1 0 0 1	6/15	30	36
0 1 1 1	1 0 0 0	7/15	35	42
1 0 0 0	0 1 1 1	8/15	40	48
1 0 0 1	0 1 1 0	9/15	45	54
1 0 1 0	0 1 0 1	10/15	50	60
1 0 1 1	0 1 0 0	11/15	55	66
1 1 0 0	0 0 1 1	12/15	60	72
1 1 0 1	0 0 1 0	13/15	65	78
1 1 1 0	0 0 0 1	14/15	70	84
1 1 1 1	0 0 0 0	15/15	75	90

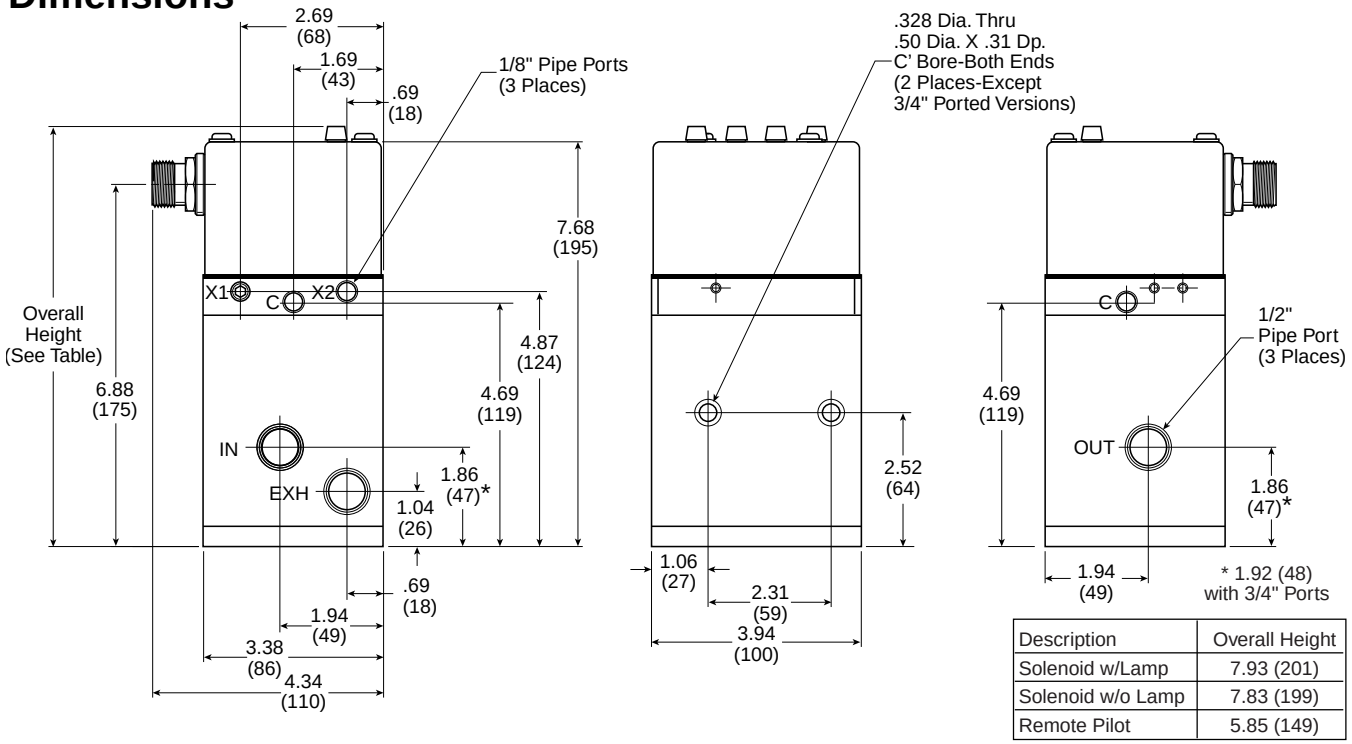
Table above illustrates available output pressures for inlet pressures of 75 PSIG and 90 PSIG. Inlet pressure may be any value between 15 and 150 PSIG. Output pressure increment will be 1/15 of inlet pressure.

* 0 = Voltage "OFF"
1 = Voltage "ON"

† Available only on units with 6-Pin connector.

†† Shaded output pressures shown are theoretical and are below the minimum operating range of the valve and should not be used. Please refer to the Engineering Specifications for minimum output.

Dimensions



Description	Overall Height
Solenoid w/Lamp	7.93 (201)
Solenoid w/o Lamp	7.83 (199)
Remote Pilot	5.85 (149)

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Narrow Band Control

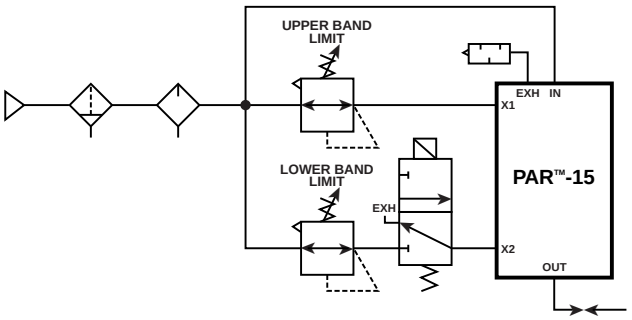
The PAR™-15 can also be used to provide a narrower band of output pressures with the lowest selected pressure greater than zero.

EXAMPLE:

Assume valve with normally closed solenoids. Customer desires to divide a range from 25 PSIG to 100 PSIG into 15 increments of 5 PSIG each. This is done by applying 100 PSIG to the external pilot supply port X1 and 25 PSIG to the pilot exhaust port X2.

Two 1/8 inch relieving regulators are required. The addition of one 3-Way normally closed solenoid operated valve allows the additional selection of 0 PSIG. These are connected as shown in the diagram. The relieving regulators set the upper and lower band limits. With a normally closed PAR™-15 valve, zero output pressure may be selected by simultaneously de-energizing the 3-Way valve and the PAR™-15 valve solenoids. With a normally open PAR™-15 valve, zero output pressure may be selected by simultaneously de-energizing the 3-Way valve and energizing the PAR™-15 valve solenoids.

Narrow Band Control Diagram



Note: For valves with normally open solenoids, reverse the X1 and X2 connections.

Operation of the valves is the same as mentioned previously under the Operation section. See Cascading Truth Table for the proper input signal to each solenoid, and the resulting proportion of inlet pressure for an output pressure.

A formula can be used to calculate the output pressure of the valve downstream.

$$\text{OUTPUT PRESSURE (PSIG)} = \frac{\text{LINE PRESSURE (PSIG)}}{15} \times \left(\frac{\text{BINARY INPUT UPSTREAM VALVE}}{16} + \text{BINARY INPUT DOWNSTREAM VALVE} \right)$$

Where:

LINE PRESSURE is the supply pressure to both valves and it must be equal.

BINARY INPUT UPSTREAM VALVE is the binary number, a number from 0 to 15 depending on which solenoids are energized (normally closed solenoids) or de-energized (normally open solenoids) on the valve upstream.

BINARY INPUT DOWNSTREAM VALVE is the binary number, a number from 0 to 15 depending on which solenoids are energized (normally closed solenoids) or de-energized (normally open solenoids) on the valve downstream.

EXAMPLE:

Assume the line pressure is 120 PSIG, the valve upstream has inputs 1 & 2 energized, and the valve downstream has inputs 1 & 8 energized. Also, assume normally closed solenoids. What is the output pressure of the valve downstream?

SOLUTION:

BINARY INPUT VALVE UPSTREAM = 1 + 2 = 3
BINARY INPUT VALVE DOWNSTREAM = 1 + 8 = 9

$$\text{OUTPUT PRESSURE} = \frac{120}{15} \times \left(\frac{3}{16} + 9 \right) = 8 \times 9.1875 = 73.5 \text{ PSIG}$$

Cascading

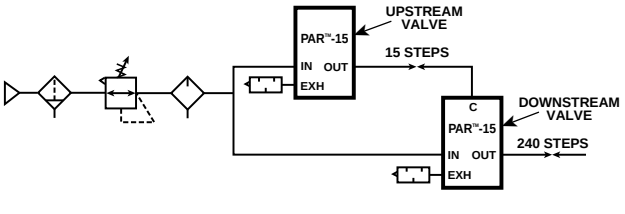
Two PAR™-15's can also be used in conjunction to provide 240 steps (versus 15 steps from one valve), therefore more output pressures. See diagram.

Connect the outlet port marked OUT of the valve upstream to the 1/8" port marked C of the valve downstream. A port/pipe reducer(s) must be used to accomplish this task. If desired, a pressure gauge can be installed between these two points. A gauge isolator should be used to protect the gauge from pulsating pressures.

Connect the outlet port marked OUT of the valve downstream to the supply side of the system requiring multiple pressures. If desired, a pressure gauge can be installed downstream of the outlet port. A gauge isolator should be used to protect the gauge from pulsating pressures.

DO NOT PLUG THE 1/8" PORTS MARKED C AND X2 ON THE VALVE UPSTREAM AND X2 ON THE VALVE DOWNSTREAM.

Cascade Diagram



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	Normally Closed Solenoids		Normally Open Solenoids					
	Down-Step Valve	Up-stream Valve	Down-stream Valve	Up-stream Valve	Down-stream Valve	Up-stream Valve		
	Binary Input* 8 4 2 1	Binary Input* 8 4 2 1	Binary Input* 8 4 2 1	Binary Input* 8 4 2 1	Proportion	Proportion	PSIG Output @	PSIG Output @
	Pin Number † 5 3 2 1	Pin Number † 5 3 2 1	Pin Number † 5 3 2 1	Pin Number † 5 3 2 1	of Inlet Pressure +	of Inlet Pressure	60 PSIG Inlet ††	120 PSIG Inlet ††
0	0 0 0 0	0 0 0 0	1 1 1 1	1 1 1 1	0	0	0.00	0.00
1	0 0 0 0	0 0 0 1	1 1 1 1	1 1 1 0	0	1/240	0.25	0.50
2	0 0 0 0	0 0 1 0	1 1 1 1	1 1 0 1	0	2/240	0.50	1.00
3	0 0 0 0	0 0 1 1	1 1 1 1	1 1 0 0	0	3/240	0.75	1.50
4	0 0 0 0	0 1 0 0	1 1 1 1	1 0 1 1	0	4/240	1.00	2.00
5	0 0 0 0	0 1 0 1	1 1 1 1	1 0 1 0	0	5/240	1.25	2.50
6	0 0 0 0	0 1 1 0	1 1 1 1	1 0 0 1	0	6/240	1.50	3.00
7	0 0 0 0	0 1 1 1	1 1 1 1	1 0 0 0	0	7/240	1.75	3.50
8	0 0 0 0	1 0 0 0	1 1 1 1	0 1 1 1	0	8/240	2.00	4.00
9	0 0 0 0	1 0 0 1	1 1 1 1	0 1 1 0	0	9/240	2.25	4.50
10	0 0 0 0	1 0 1 0	1 1 1 1	0 1 0 1	0	10/240	2.50	5.00
11	0 0 0 0	1 0 1 1	1 1 1 1	0 1 0 0	0	11/240	2.75	5.50
12	0 0 0 0	1 1 0 0	1 1 1 1	0 0 1 1	0	12/240	3.00	6.00
13	0 0 0 0	1 1 0 1	1 1 1 1	0 0 1 0	0	13/240	3.25	6.50
14	0 0 0 0	1 1 1 0	1 1 1 1	0 0 0 1	0	14/240	3.50	7.00
15	0 0 0 0	1 1 1 1	1 1 1 1	0 0 0 0	0	15/240	3.75	7.50
16	0 0 0 1	0 0 0 0	1 1 1 0	1 1 1 1	1/15	0	4.00	8.00
17	0 0 0 1	0 0 0 1	1 1 1 0	1 1 1 0	1/15	1/240	4.25	8.50
18	0 0 0 1	0 0 1 0	1 1 1 0	1 1 0 1	1/15	2/240	4.50	9.00
19	0 0 0 1	0 0 1 1	1 1 1 0	1 1 0 0	1/15	3/240	4.75	9.50
20	0 0 0 1	0 1 0 0	1 1 1 0	1 0 1 1	1/15	4/240	5.00	10.00
21	0 0 0 1	[illegible]	[illegible]	[illegible]	1/15	5/240	5.25	10.50
22	[illegible]	[illegible]	0 0 1 0	[illegible]	[illegible]	6/240	5.50	11.00
[illegible]	0 0 0 1	0 1 1 1	0 0 1 0	1 1 0 0	13/15	[illegible]	5.75	[illegible]
211	0 0 0 1	1 0 0 0	0 0 1 0	0 1 1 1	13/15	[illegible]	[illegible]	105.50
212	0 0 0 0	1 1 1 1	0 0 1 0	1 0 1 1	13/15	4/240	53.00	106.00
213	0 0 0 0	0 0 0 0	0 0 1 0	1 0 1 0	13/15	5/240	53.25	106.50
214	0 0 0 0	0 0 0 0	0 0 1 0	1 0 0 1	13/15	6/240	53.50	107.00
215	0 0 0 0	0 0 0 0	0 0 1 0	1 0 0 0	13/15	7/240	53.75	107.50
216	0 0 0 0	0 0 0 0	0 0 1 0	0 1 1 1	13/15	8/240	54.00	108.00
217	0 0 0 0	0 0 0 0	0 0 1 0	0 1 1 0	13/15	9/240	54.25	108.50
218	0 0 0 0	[illegible]	[illegible]	[illegible]	13/15	10/240	54.50	109.00
219	[illegible]	0 1 0 0	0 0 0 1	1 1 0 1	[illegible]	11/240	54.75	109.50
[illegible]	1 1 1 0	0 1 0 1	0 0 0 1	1 0 1 1	14/15	[illegible]	55.00	[illegible]
230	1 1 1 0	0 1 1 0	0 0 0 1	1 0 1 0	14/15	[illegible]	[illegible]	115.00
231	1 1 1 0	0 1 1 1	0 0 0 1	1 0 0 1	14/15	7/240	57.75	115.50
232	1 1 1 0	1 0 0 0	0 0 0 1	1 0 0 0	14/15	8/240	58.00	116.00
233	1 1 1 0	1 0 0 1	0 0 0 1	0 1 1 1	14/15	9/240	58.25	116.50
234	1 1 1 0	1 0 1 0	0 0 0 1	0 1 1 0	14/15	10/240	58.50	117.00
235	1 1 1 0	1 0 1 1	0 0 0 1	0 1 0 1	14/15	11/240	58.75	117.50
236	1 1 1 0	1 1 0 0	0 0 0 1	0 1 0 0	14/15	12/240	59.00	118.00
237	1 1 1 0	1 1 0 1	0 0 0 1	0 0 1 0	14/15	13/240	59.25	118.50
238	1 1 1 0	1 1 1 0	0 0 0 1	0 0 0 1	14/15	14/240	59.50	119.00
239	1 1 1 0	1 1 1 1	0 0 0 1	0 0 0 0	14/15	15/240	59.75	119.50
240	1 1 1 1	0 0 0 0	0 0 0 0	1 1 1 1	15/15	0	60.00	120.00

Table above illustrates available output pressures for inlet pressures of 75 PSIG and 90 PSIG. Inlet pressure may be any value between 15 and 150 PSIG. Output Pressure increment will be 1/15 of inlet pressure.

* 0 = Voltage "OFF"
1 = Voltage "ON"

† Available only on units with 6-Pin connector.

†† Shaded output pressures shown are theoretical and are below the minimum operating range of the valve and should not be used. Please refer to the Engineering Specifications for minimum output.

Note: Full table appears in instruction sheet enclosed with the product.

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Flow Capacity

275 SCFM Inlet to Outlet

225 SCFM Outlet to Exhaust

Life Expectancy

Normal multi-million cycle life expectancy of these valves is based on the use of properly filtered air at room temperature.

D

Lubrication

Although the valve does not require lubrication for a normal service life, use of SAE 10 mineral base oil is recommended to extend component life. This should be supplied using a 1/2 inch full flow lubricator located upstream of the valve inlet port.

CAUTION:
DO NOT USE SYNTHETIC, RECONSTITUTED, OR OILS WITH AN ALCOHOL CONTENT.

Materials

Body, Bottom and Top Plates ..... Aluminum
Divider ..... Aluminum
Piston ..... Acetal
Poppet ..... Aluminum
Poppet Guide ..... Aluminum
Poppet Seal ..... Fluorocarbon
Seals ..... Nitrile
Spring ..... Stainless Steel

Output Response

20 milliseconds

Operating Pressure

Pressure Range	PSIG	kPa
Maximum Inlet	150	1035
Minimum Output	6	41

Shipping Weight

Without Enclosure 6.3 lbs. (2.9 kg.)

With 6-Pin Plug & Cord 8.0 lbs. (3.6 kg.)

Solenoid Enclosure

Meets NEMA-4 Standard (6-Pin Plug Optional Only)

Solenoid Kits & Electrical Data

Class F Solenoids				
Part Number	**Voltage / Cycles**	**Solenoid Type***	**Power Consumption (Watts)**	**Holding Current (AMPS)**
PS2982B45P	12VDC	NC	1.2W	0.1
PS2982B49P	24VDC	NC	1.2W	0.05
PS2982B53P	120V/60Hz	NC	1.6VA	0.013
PS2982B42P	24V/60Hz	NC	1.6VA	0.066
PS3202B42P	24V/60Hz	NO	2.4VA	0.1
PS3202B45P	12VDC	NO	1.8W	0.15
PS3202B49P	24VDC	NO	1.8W	0.075
PS3202B53P	120V/60Hz	NO	2.4VA	0.02

* NC = Normally Closed
NO = Normally Open

Temperature Range (Ambient)

32°F (0°C) to 140°F (60°C)

⚠ **Caution: If it is possible that the ambient temperature may fall below freezing, the media must be moisture free to prevent internal damage or unpredictable behavior.**

Voltage Range

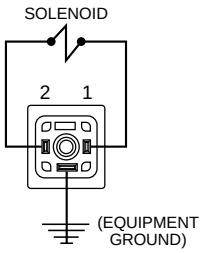
+10% to -10% of rating

Wiring

Follow all national and local electrical codes.

Units with No Enclosure

Connect input and common signals to each one of the solenoids marked with the binary inputs 1, 2, 4 and 8, using the 3-Pin female connector kits shown in the catalog. Follow the installation instructions included with the 3-Pin female connector kits for the proper installation.



If you elect not to use the 3-Pin female connector kits, you may use three female spade connectors per solenoid and connect the wires as shown on the figure.

Units with Enclosure and Without 6-Pin Receptacle

Connect input and common signals to the terminal block on the circuit board labelled TB1. Connect each solenoid input (1, 2, 4, & 8) to the respective label on the circuit board. Connect each common to the input labelled C on the circuit board.

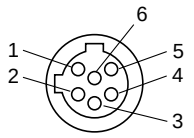
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Units with Enclosure and 6-Pin Micro Receptacle

These units use the following brand names for 6-Pin micro connectors:

Brand Name	Receptacle	Connector w/ 6 Foot Cord
Brad Harrison	7R6006A19A120	706000D02F060
Joy	5000127-41	5000127-2

Connection is made as shown in the chart below.



Micro

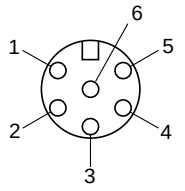
Pin	Wire Color	Function
1	Red-White	Input 1
2	Red	Input 2
3	Green	Equipment Ground
4	Red-Yellow	Common
5	Red-Black	Input 8
6	Red-Blue	Input 4

Units with Enclosure and 6-Pin Mini Connector

These units use either one of the following brand names for 6-Pin mini connectors:

Brand Name	Receptacle	Connector w/ 6 Foot Cord
Brad Harrison	42605	42602
Joy	X8987-2	X8987-4

Connection is made as shown in the chart below.



Mini

Pin	Wire Color	Function
1	Orange	Input 1
2	Blue	Input 2
3	Black	Input 4
4	White	Common
5	Red	Input 8
6	Green	Equipment Ground

Units with Enclosure, 6-Pin Connector and Indicator Lamps

Each indicator lamp signals when the corresponding solenoid operator is actuated. Lamps that fail to light may need to be replaced or a check made to see if a connection has become loose.

Follow the service kit instructions included with the repair kits for proper installation of replacement lamps.

For units with DC solenoids and indicator lamps red wire is (+) positive white wire is (-) negative.

⚠ **Caution: DC solenoids with indicator lamps are polarity sensitive. Observe polarities indicated above.**

Available Lamps

Description	Part Number
Lamp (120/60AC) with spring clip	K352428B
Lamp (24VDC) with spring clip	K352429B

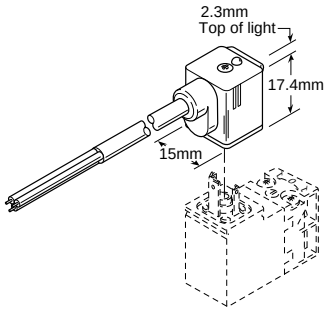
15mm 3-Pin DIN 43650C

Description	Connector with 6' (2m) Cord	Connector
PS2932P	PS2932JP	Unlighted
PS294675P	PS2946J75P*	Light – 12VAC or DC
PS294679P	PS2946J79P*	Light – 24VAC or DC
PS294683P	PS2946J83P*	Light – 110/120VAC

* LED with surge suppression.

Note: Max ø6.5mm cable size required for connector w/o 6' (2m) cord.

Engineering Data:
Conductors: 2 Poles Plus Ground
Cable Range (Connector Only): 4 to 6mm (0.16 to 0.24 Inch)
Contact Spacing: 8mm

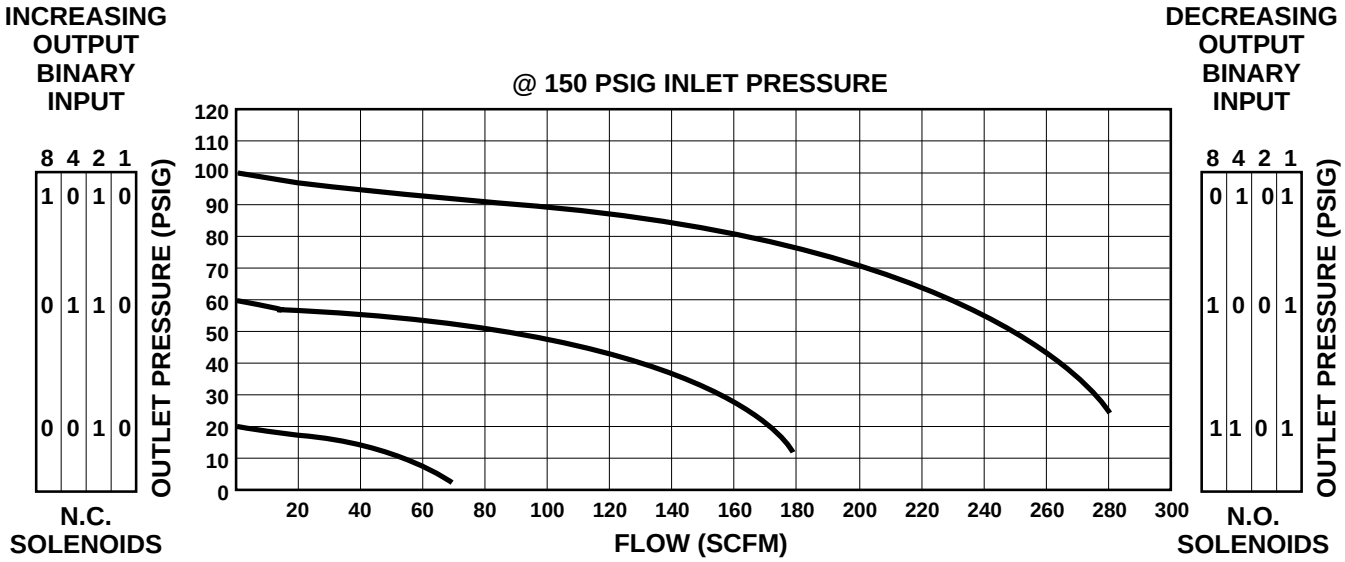


Service Kit

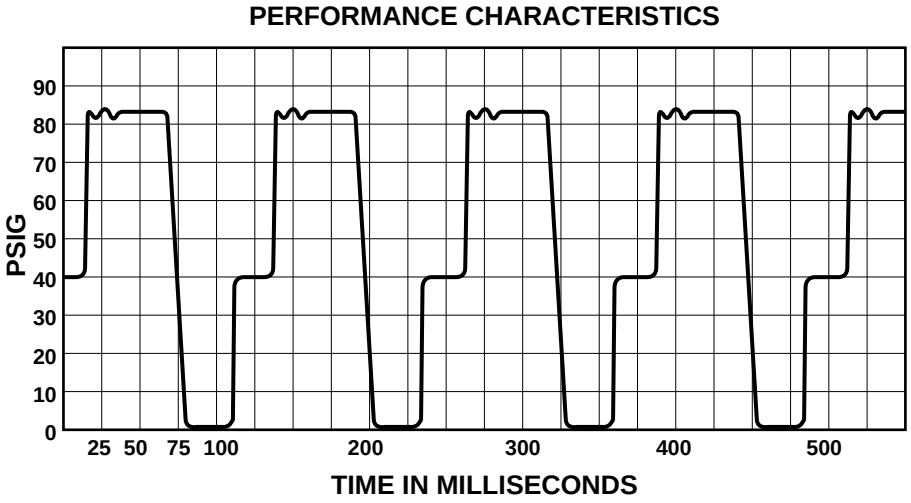
Part Number	Kit Contents
K352413B	Piston, Poppet Assembly, all Rubber Seals and Gaskets

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Flow Characteristics



Typical Time Response



Actual test results show rapid response on a robot welding operation at a major U.S. automotive manufacturer.

NOTE: Although graph illustrates pressure dropping to 0 PSIG at the end of each cycle, the PAR™-15 valve can shift down to intermediate pressure steps, i.e. from 75 PSIG to 45 PSIG, without returning to 0 PSIG first.

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Flow Controls & Accessories

Section E

E

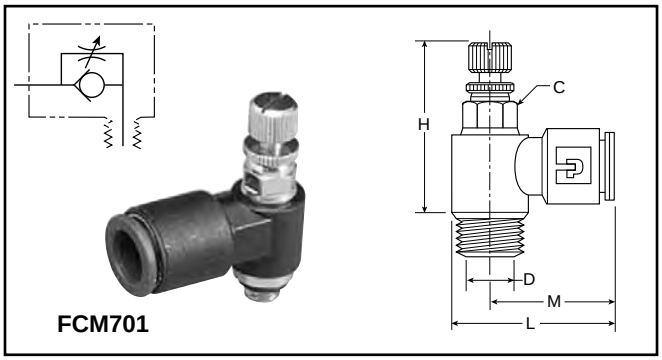


Flow Control Valves
- “FCM701 & FCM703” Series E2
- “FC800 & FC806” Series E3-E4
- PWRA & PWRE E5-E7
- “3251” Series E8
- “337” Series E9
- “3250” Series E10-E11
- “338” Series E12

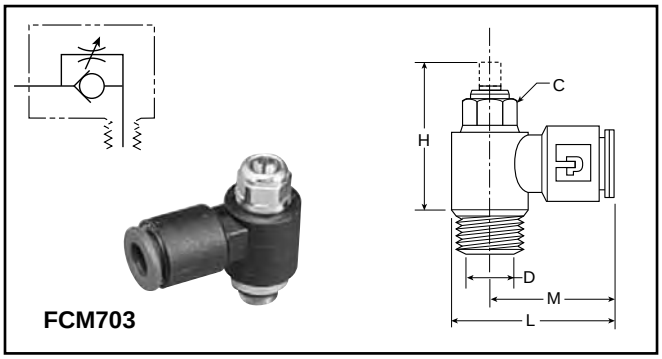
Check Valves
- “339” & "3047" Series Check Valve E13

Tank Valves & Air Chucks E14
“EM” Series Exhaust Mufflers E15
Muffler / Flow Controls E15
Breather Vents E16
“ES” Series Silencer E16
ASN Air Line Silencer E17
P6M Air Line Silencer E18
Muffler-Reclassifier ECS E19
Automatic Drip Leg Drain & Relief Valve E20
Relief Valves - Diaphragm Type E21
Shuttle Valves & Quick Exhaust E22-E24
Pressure Switches E25-E27
Drain Valves E28-E29

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FCM701



FCM703

General Information

Miniature right angle flow controls provide meter out control of exhaust air from an air cylinder while providing full flow in the reverse direction. The 10-32 male thread can be used to mount directly to cylinder ports. The inlet ports are available in 5-32 or 1/4" instant tube fittings. The adjustment screw is captive and discourages tampering.

This compact flow control saves space and reduces the number of fittings involved in making the connection. Plumbing can be oriented 360° about the cylinder port.

Valve Specifications

Maximum Operating Pressure.....145 PSIG (10 bar, 1000 kPa) max.

Temperature Range* ..... 0°F to 140°F (-18°C to 60°C)

* Ambient temperatures below freezing require moisture-free air. Ambient temperatures below freezing and above 180° require lubricants especially selected for suitability at these temperatures. Pneumatic valves should be used with filtered and lubricated air.

Component Materials

Body ..... Polyamide

Mounting Thread..... Brass

Dimensions

Miniature Exhaust Flow Control FCM701

Composite Body

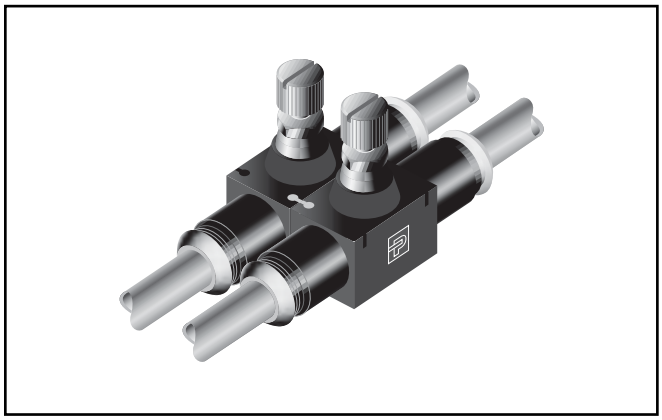
Part No.	Tube Size	Thread Size	C Hex (mm)	H Closed	H Open	L	M	Flow Dia. D	Adjusted Flow (SCFM)	Free Flow (SCFM)
FCM701-5/32-0	5/32	10-32	6	0.925	1.023	0.846	0.669	0.080	5.23	2.90
FCM701-5/32-2	5/32	1/8	7	1.000	1.083	0.935	0.708	0.100	8.41	6.32
FCM701-4-0	1/4	10-32	6	0.925	1.023	0.885	0.708	0.080	9.94	3.86
FCM701-4-2	1/4	1/8	7	1.000	1.083	0.957	0.730	0.100	10.56	5.08
FCM701-4-4	1/4	1/4	8	1.083	1.180	1.013	0.748	0.160	18.79	10.79

Knobless Miniature Exhaust Flow Control FCM703

Composite Body

Part No.	Tube Size	Thread Size	C Hex (mm)	H Closed	H Open	L	M	Flow Dia. D	Adjusted Flow (SCFM)	Free Flow (SCFM)
FCM703-5/32-0	5/32	10-32	6	0.650	0.787	0.846	0.669	0.080	7.43	4.76
FCM703-4-2	1/4	1/8	7	0.708	0.860	0.956	0.730	0.100	12.08	5.86
FCM703-4-4	1/4	1/4	8	0.826	0.964	1.013	0.748	0.160	19.55	10.89

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General Information

It is sometimes impossible to mount a flow control directly on the port of the cylinder, either due to lack of space or because of the need for remote adjustment of the flow control. To resolve this problem in-line flow controls are designed to mount on the piping between the directional valve and the cylinder or can be mounted on the control panel next to other control units.

Designed to be Versatile

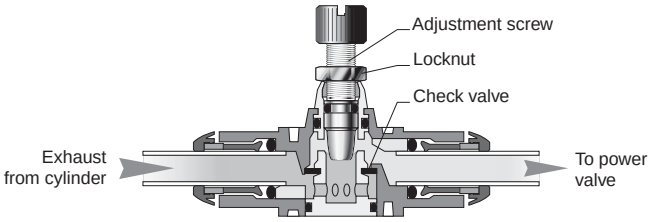
Parker In-Line Flow Controls are unidirectional flow control valves. Intake air flows freely through the flow control; exhaust air is metered out through a specially designed adjustment screw. An arrow on the body of the valve indicates the direction of controlled flow. Since it is a tube to tube connection, our in-line flow controls may be installed as a meter in or a meter out device. Parker in-line flow controls can be easily added to existing circuitry. Simply splice it into the cylinder port line. In-line flow controls may be used individually or, they may be stacked together using two joining clips, supplied standard with each valve. Panel mounting is accomplished by using the through holes in the molded body.

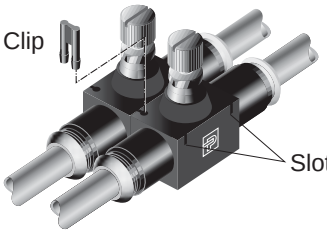
Adjustment Characteristics

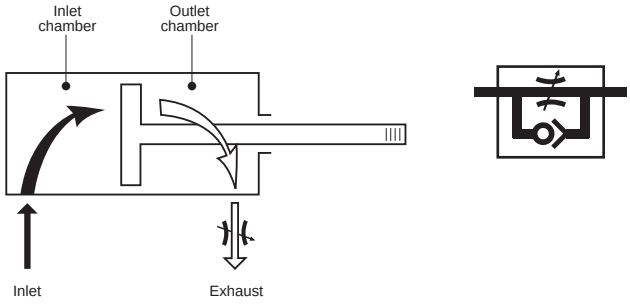
Control is achieved through a finely threaded special adjustment screw. The special shaped adjustment screw produces a more linear flow control than ordinary tapered screws. With the use of a locking nut, the in-line flow control may be secured in its final setting. Settings are maintained even under adverse conditions such as vibration. A captive adjustment screw prevents loss or dangerous blow out.

Full Flow in Both Directions

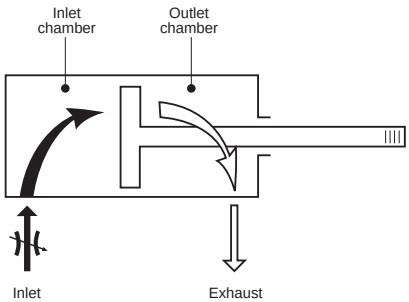
Intake capacity is always slightly greater than the full open exhaust capacity, enabling maximum variation of speeds between outward and return strokes.







Flow regulation on the exhaust port



Flow regulation on the inlet port

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Advantages

- Assembly in Banks
- Panel Mounting
- Allows other Function Fittings to be Mounted on a Cylinder
- Space Saving
- Weight Saving
- Flexibility

Valve Specifications

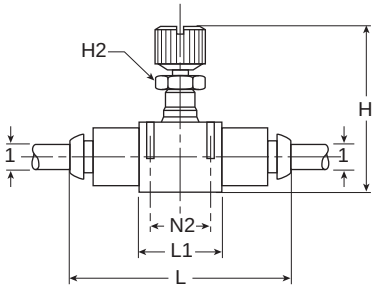
Maximum Working Pressure..... 145 PSI
Operating Temperature .....5° to 150°F
Body Material.....High Resistance Polyamide
Adjustment Screw Material.....Brass

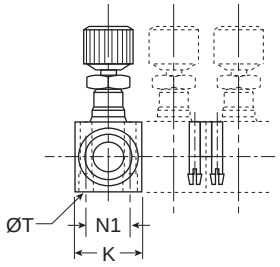
E

Dimensions

FC800 In-Line Flow Control with Push-in Connection

Part No.	1 ØD	H Min.	H Max.	L	L1	K	N1	N2	T	Orifice	H2 (mm)
FC800-5/32	5/32	1.15	1.31	1.52	.59	.47	.31	.43	.09	.12	5
FC800-4	1/4	1.54	1.74	2.11	.90	.66	.43	.66	.12	.16	8
FC800-6	3/8	2.03	2.38	2.96	1.29	.94	.62	1.01	.16	.31	14
FC800-8	1/2	2.24	2.63	3.35	1.37	1.09	.78	1.07	.16	.39	14

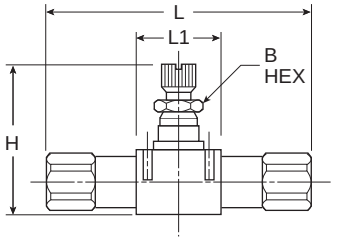


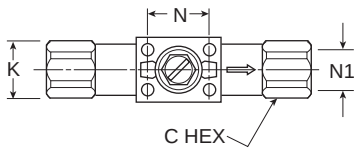


Supplied with 2 clips

FC806 Threaded In-Line Flow Control

Part No.	Thread Size	B Hex (mm)	C Hex (mm)	H Closed	H Open	L	L1	K	N	N1
FC806-2	1/8	13	8	1.56	1.75	2.70	.91	.67	.67	.43
FC806-4	1/4	16	11	1.73	1.97	3.27	1.02	.73	.79	.49
FC806-6	3/8	22	14	2.05	2.40	3.82	1.30	.94	1.02	.63
FC806-8	1/2	24	14	2.26	2.66	4.76	1.38	1.10	1.08	.79





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Pneumatic Division
Richland, Michigan
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General Description

Flow Control – PWRE (Thermoplastic)

These rugged flow controllers enhance the performance of pneumatic cylinders by precise control of piston motion in both directions. They allow full inlet flow to the cylinder while providing fine adjustment of the exhaust flow.

Right angle construction provides for convenient mounting where the cylinder is best controlled . . . at the cylinder port.



PWRA

The PWRA series is made of zinc alloy, built for rugged applications and is available in sizes ranging from 1/8" through 1/2" with cylinder port fittings in either NPT or BSP. Tubing connections are offered either as instant fittings (fractional or metric) or threaded fittings (NPT or BSP). To prevent unwanted drift due to shock or vibration, these devices are fitted with adjustment locking nuts.



PWRE

The PWRE series has a thermoplastic body with brass fittings giving lighter weight and lower profile than its metal counterpart to the left. These flow controls are supplied with instant tube fittings (fractional or metric) and NPT or BSP cylinder port fittings.

E

Valve Specifications

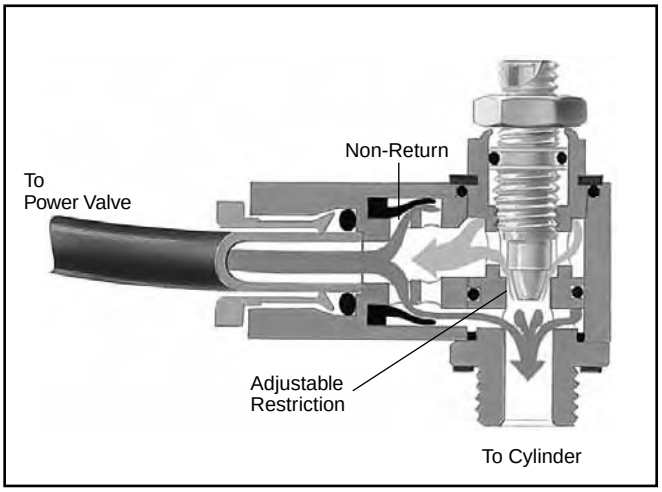
Maximum Operating Pressure..... 145 PSIG (10 bar)

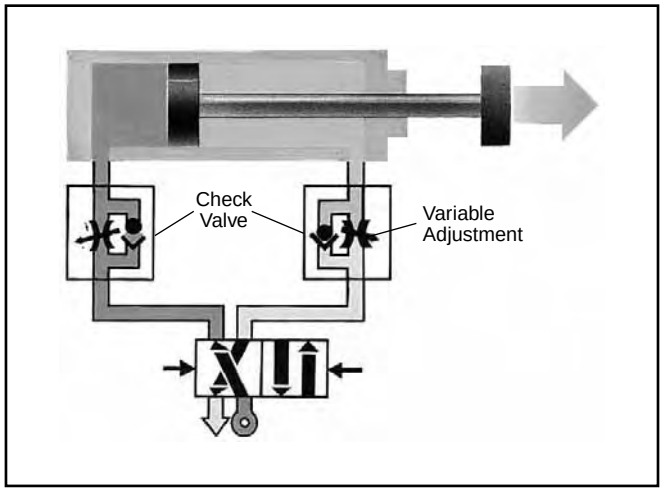
Operating Temperature ..... 0° to 140°F* (-18°C to 60°F)

* Ambient temperatures below freezing require moisture-free air. Ambient temperatures below freezing and above 180° require lubricants especially selected for suitability at these temperatures. Pneumatic valves should be used with filtered and lubricated air.

Flow

No of Turns	Exhaust (Screw Open)	Inlet (Screw Closed)
12	1.8 SCFM	1.8 SCFM





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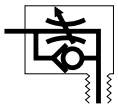
For Cylinder Mounting
(Can also be mounted in Threshold Sensor Banjo)

With Instant Tube Fittings

with Allen key adjustment and locknut



PWRA3469

Symbol	BSP Cylinder Port Thread	BSP Connection for Tube	BSP Catalog Number	NPT Cylinder Port Thread	NPT Connection for Tube	NPT Catalog Number
	1/8"	6mm	PWRA1468	1/8"	1/4"	PWRA3468
		8mm	PWRA1488			
	1/4"	6mm	PWRA1469	1/4"	1/4"	PWRA3469
	3/8"	8mm	PWRA1483	—	—	—
	1/2"	12mm	PWRA1412	1/2"	1/2"	PWRA3412

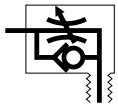
E

With Threaded Connection

with Allen key adjustment and locknut

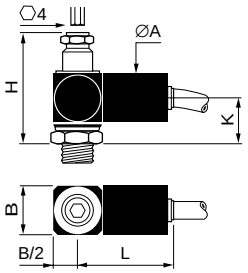


PWRA3833

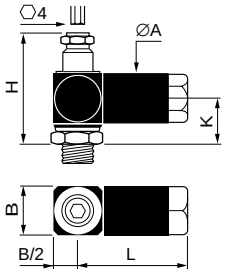
Symbol	BSP Cylinder Port Thread	BSP Connection Tapped Thread	BSP Catalog Number	NPT Cylinder Port Thread	NPT Connection Tapped Thread	NPT Catalog Number
	1/8"	1/8"	PWRA1888	—	—	—
	1/4"	1/4"	PWRA1899	1/4"	1/4"	PWRA3899
	3/8"	3/8"	PWRA1833	3/8"	3/8"	PWRA3833
	1/2"	1/2"	PWRA1822	1/2"	1/2"	PWRA3822

Dimensions: Inches (mm)

PWRA14••/34••



PWRA18••/38••



	Adjustment*	Flow**	ØA	B	K	H	L
PWRA1468/3468	10	15.9	0.67" (17)	0.71" (18)	0.67" (17)	1.77" (45)	1.26" (32)
PWRA1488	14	23.0	0.87" (22)	0.83" (21)	0.83" (21)	2.17" (55)	1.54" (39)
PWRA1469/3469	14	26.5	0.87" (22)	0.83" (21)	0.83" (21)	2.17" (55)	1.54" (39)
PWRA1483	14	61.8	1.06" (27)	1.10" (28)	1.02" (26)	2.36" (60)	1.97" (50)
PWRA1412/3412	20	97.1	1.22" (31)	1.30" (33)	1.38" (35)	3.03" (77)	2.60" (66)
PWRA1888	10	15.9	0.67" (17)	0.71" (18)	0.67" (17)	1.77" (45)	1.44" (36.5)
PWRA1899/3899	14	31.8	0.87" (22)	0.83" (21)	0.83" (21)	2.17" (55)	.71" (43.5)
PWRA1833/3833	14	68.9	1.06" (27)	1.10" (28)	1.02" (26)	2.36" (60)	2.19" (55.5)
PWRA1822/3822	20	97.1	1.22" (31)	1.30" (33)	1.38" (35)	3.03" (77)	2.48" (63)

* Number of turns (4mm Allen key)
** SCFM at 90 PSI with screw closed

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For Cylinder Mounting
(Can also be mounted in Threshold Sensor Banjo)



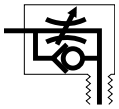
PWRE14457

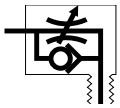


PWRE14697

With Instant Tube Fittings

with Allen key adjustment and fine thread friction locking

Symbol	BSP Cylinder Port Thread	BSP Connection for Tube	BSP Catalog Number	NPT Cylinder Port Thread	NPT Connection for Tube	NPT Catalog Number
	M5	4mm	PWRE1445	10-32 UNF	5/32"	PWRE14457
					10-32 UNF	PWRE14557
	1/8"	4mm	PWRE1448	1/8"	5/32"	PWRE14487
		6mm	PWRE1468		1/4"	PWRE14687
	1/4"	6mm	PWRE1469	1/4"	1/4"	PWRE14697
	3/8"	8mm	PWRE1483	3/8"	3/8"	PWRE14937
Reverse Flow	M5	4mm	PWRE1145	10-32UNF	5/32"	PWRE11457



E

Component Materials

Body ..... Polyamide

Mounting Thread ..... Brass

General Information

Miniature right angle flow controls provide meter out control of exhaust air from an air cylinder while providing full flow in the reverse direction. The M5 (10-32) male thread can be used to mount directly to cylinder ports. The inlet ports are available in M5 (10-32) male or 5/32" instant tube fitting. The adjustment screw is captive and discourages tampering.

This compact flow control saves space and reduces the number of fittings involved in making the connection. Plumbing can be oriented 360° about the cylinder port.

Flow

No of Turns	Exhaust (Screw Open)	Inlet (Screw Closed)
12	1.8 SCFM	1.8 SCFM

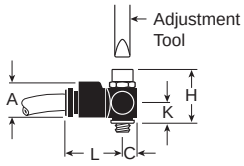
Valve Specifications

Maximum Operating Pressure..... 145 PSIG (10 bar)

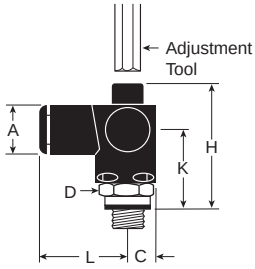
Operating Temperature ..... 0° to 140°F* (-18°C to 60°F)

* Ambient temperatures below freezing require moisture-free air. Ambient temperatures below freezing and above 180° require lubricants especially selected for suitability at these temperatures. Pneumatic valves should be used with filtered and lubricated air.

Dimensions: Inches (mm)



PWRE1445•/1145•



PWRE14••

	Adjustment	# Turns	Flow*	ØA	C	D Hex.	K	H	L
PWRE1445/14457 PWRE1145/11457 PWRE14557	3mm screwdriver	12	1.8	0.43" (11)	0.16" (4)	5/16" (8)	0.28" (7.2)	0.67" (17)	0.83" (21)
PWRE1448/14487	3mm Allen key	14	10.2	0.55" (14)	0.31" (8)	9/16" (14)	0.94" (23.8)	1.77" (45)	0.94" (24)
PWRE1468/14687	3mm Allen key	14	23.0	0.55" (14)	0.31" (8)	9/16" (14)	0.94" (23.8)	1.77" (45)	0.94" (24)
PWRE1469/14697	4mm Allen key	18	23.0	0.63" (16)	0.41" (10.5)	11/16" (17)	1.04" (26.5)	1.94" (49.3)	1.06" (27)
PWRE1483/14937	4mm Allen key	18	47.7	0.79" (20)	0.45" (11.5)	7/8" (22)	1.17" (29.8)	2.24" (56.8)	1.30" (33)

* SCFM at 90 PSI with screw closed

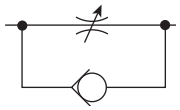
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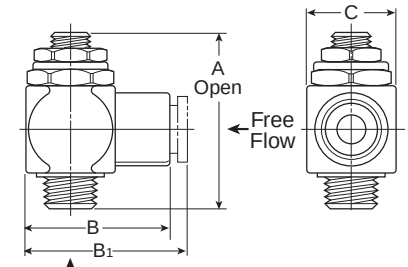


Shown with Threaded Inlet



Shown with Prestolok Inlet Fitting





Application

The Right Angle Flow Control is an ideal solution to cylinder speed control where space is at a premium. Costly fittings, connections and piping expenses can be eliminated because the valve can rotate 360°, the piping alignment can be in any direction. The 1/8" model can be rotated after final assembly.

Operation

Install by threading male end directly into cylinder port. The free-flow and metered-flow direction is automatically predetermined. Free-flow direction is into cylinder and metered-flow is out of the cylinder. Flow is adjusted with an Allen wrench and locked with nut.

Right Angle Flow Control also available with Prestolok fittings on inlet port to accommodate 5/32 - 3/8 tube sizes. This allows for quick connection and eliminates need for separate tube fitting.

Valve Specifications

Body ..... Brass
Plunger ..... Brass and Acetal
Seals ..... Buna N
Temperature Range ..... 0°F to 140°F (-18°C to 60°C)
Pressure Rating ..... 125 PSIG (863 kPa) max.

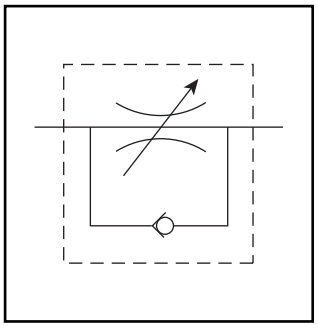
Model Selection Information and Dimensions

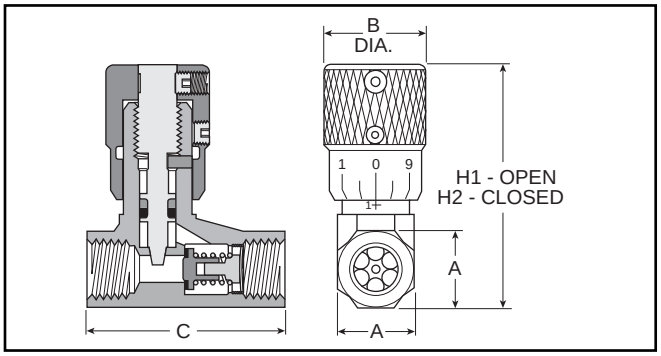
Model Number	Thread (NPT) Male	Thread (NPT) Female	A		B		C		Weight		Cv	
			Inches	mm	Inches	mm	Inches	mm	oz.	kg.	Adjusted Flow	Free Flow
03251 0125	1/8	1/8	1.74	44	1.18	30	0.67	17	2.0	0.9	0.26	0.20
03251 0250	1/4	1/4	1.99	51	1.40	36	0.91	23	4.5	2.0	0.75	0.68
03251 0375	3/8	3/8	2.28	58	1.71	43	1.06	27	7.0	3.2	0.84	0.72
03251 0500	1/2	1/2	2.69	68	1.98	53	1.26	32	11.0	5.0	1.64	1.41
With Prestolok Fittings	**Thread (NPT)**	**Tube Size**	**A**		**B_1**		**C**		**Weight**		**Cv**	
03251 1215	1/8	5/32	1.74	44	1.18	30	0.67	17	2.0	0.9	0.19	0.16
03251 1225	1/8	1/4	1.74	44	1.18	30	0.67	17	2.0	0.9	0.28	0.22
03251 2525	1/4	1/4	1.99	51	1.40	36	0.91	23	4.5	2.0	0.51	0.44
03251 2538	1/4	3/8	1.99	51	1.40	36	0.91	23	4.5	2.0	0.62	0.53
03251 3838	3/8	3/8	2.28	58	1.71	43	1.06	27	7.0	3.2	0.78	0.65

⚠ ***CAUTION:*** If it is possible that the ambient temperature may fall below freezing, the medium must be moisture-free to prevent internal damage or unpredictable behavior.

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General Information

The “337” Series Flow Control Valves meter flow of air in one direction and allow free flow in the reverse direction.

The “337” Series valves are manufactured with a fine tapered needle providing precise flow control, even at low flow rates. The perimeter of the adjustment knob features numerical micrometer position markings providing a visual indication of the setting. Once the desired flow is selected, a set screw can be tightened to maintain the setting.

These valves are available with NPTF ports in 1/8", 1/4", 3/8", 1/2", and 3/4" sizes. This series is recommended for pneumatic service.

Valve Specifications

Maximum Operating Pressure..... 250 PSI
Cracking pressure for
return check poppet –..... 1 to 2 PSIG

Operating Temperature .....Standard: 0° to 180°F*
Extended Temperature..... 0° to 300°F* (consult factory)

* Ambient temperatures below freezing require moisture-free air. Ambient temperatures below freezing and above 180° require lubricants especially selected for suitability at these temperatures. Pneumatic valves should be used with filtered and lubricated air.

E

Component Materials

Body Material.....Brass
Needle .....Stainless Steel
Check Seal ..... Urethane
Needle Seals.....Buna N
(Fluorocarbon optional – consult factory)
Knob .....Aluminum
Spring.....Stainless Steel
Retainer..... Zinc- Plated Steel
Set Screw.....Steel

Model Selection and Dimensions

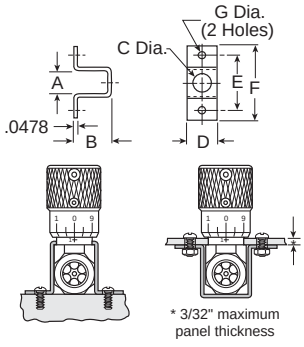
Port Size	Model	Flow (SCFM†)		Dimensions					Service Kit
		Adj.	Free Flow	A	B	C	H1	H2	
1/8"	**00337 1000**	15	32	9/16"	0.75	1.47	2.03	1.81	00337 8000
1/4"	**00337 1001**	28	75	11/16"	0.75	1.47	2.28	2.03	00337 8001
3/8"	**00337 1002**	59	139	7/8"	0.88	2.31	2.84	2.53	00337 8002
1/2"	**00337 1003**	126	183	1-3/16"	1.06	3.25	3.62	3.22	00337 8003
3/4"	**00337 1004**	140	327	1-3/8"	1.06	3.25	3.72	3.31	00337 8004

† At 100 PSIG inlet pressure with full pressure drop.

Mounting Bracket Model Selection and Dimensions

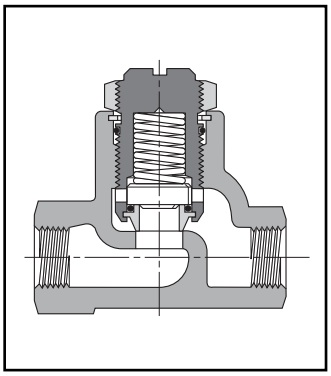
Port Size	Mounting Bracket Model No.	Dimensions						
		A	B	C	D	E	F	G
1/8"	**00337 8100**	0.66	0.66	0.505	0.75	1.38	1.88	0.22
1/4"	**00337 8101**	0.75	0.89	0.505	0.75	1.50	2.00	0.22
3/8"	**00337 8102**	0.94	1.12	0.630	1.25	1.75	2.31	0.27
1/2"	**00337 8103**	1.25	1.62	0.755	1.75	2.06	2.62	0.27
3/4"	**00337 8104**	1.44	1.72	0.755	1.75	2.25	2.81	0.27

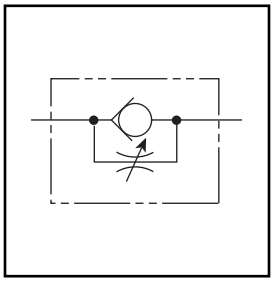
Mounting Bracket

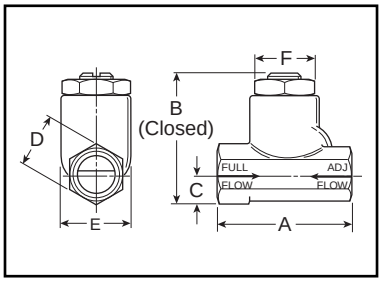


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E

Application

The “3250” Series Flow Control Valves are specifically designed to accurately meter the flow of air in one direction and allow free flow in the opposite direction. The “3250” Series Flow Control Valves are also suitable for low pressure hydraulic service.

Operation

When air is moving in the free flow direction through the valve, it forces the poppet off its seat and unrestricted air flow is permitted.

When air is moving in the metered direction through the valve, air pressure and the force of the poppet spring causes the poppet to close. Flow must then be through the orifice that is controlled by the metering screw. Opening this screw allows more flow; closing it, less flow.

Technical Specifications

Body ..... Brass

Port Size ..... 1/8", 1/4", 3/8", 1/2", 3/4"

Internal Components ..... Brass, Stainless Steel

Seals ..... Buna N

Operating Temperature ..... Standard: 0°F to 180°F
Extended Options: 0°F to 300°F

Operating Pressures:
Air ..... 250 PSIG
Hydraulic ..... 250 PSIG

Valve will operate mounted in any position.
Lock nut on metering screw prevents change in setting during operation.

Flow Rating (SCFM)

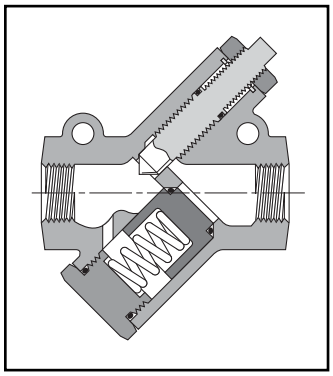
Flow Path	Valve Port Size				
	1/8"	1/4"	3/8"	1/2"	3/4"
Maximum Flow in Metered Direction	70	130	220	295	420
Maximum Flow in Free Flow Direction	60	120	205	346	615

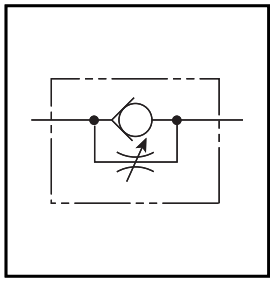
Model Selection Information and Dimensions

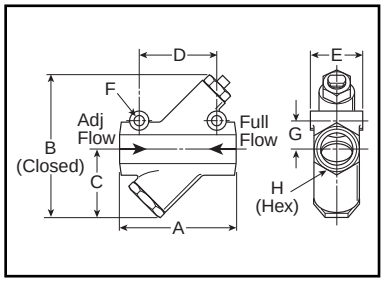
Model Number	03250 0119		03250 0219		03250 0319		03250 0419		03250 0519	
Port Size NPTF	1/8"		1/4"		3/8"		1/2"		3/4"	
	Inches	mm	Inches	mm	Inches	mm	Inches	mm	Inches	mm
A	1.75	45	2.33	59	2.66	68	3.11	79	3.56	90
B	1.56	40	1.97	50	2.44	62	3.06	78	3.69	94
C	0.37	9	0.44	11	0.56	14	0.75	19	0.88	22
D	0.62	16	0.75	19	1.00	25	1.25	32	1.50	38
E	0.81	21	1.09	28	1.38	35	1.63	41	2.00	51
F	0.68	17	0.94	24	1.19	30	1.38	35	1.75	44

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Application

These extra large flow control valves have been developed to provide effective flow settings for large diameter cylinders and for other similar air applications. Each valve has a fine screw adjustment allowing precise settings which are secured by a sturdy lock nut.

Operation

Large internal port passages coupled with unique soft seal poppet and inline design provide maximum full flow capacity and minimum pressure drop in the free flow direction. Their cone shaped brass metering valve will provide consistent cylinder speed by regulating cylinder exhaust.

E

Technical Specifications

Body ..... Cast Aluminum
Port Size ..... 1", 1-1/4", 1-1/2"
Internal Components ..... Brass, Aluminum
Seals ..... Buna N, Urethane
Spring ..... Stainless Steel
Operating Temperature:
Standard ..... -40°F to 180°F
Extended Options ..... -40°F to 350°F
Operating Pressures:
Maximum Air ..... 250 PSIG

Flow Capacity In Full Flow Direction

Port Size (NPTF)	Max. Flow (Needle Open)		Model Number
	SCFM**	C_V	
1	1000	12.3	**03250 1000**
1-1/4	1200	13.8	**03250 1250**
1-1/2	1800	17.5	**03250 1500**

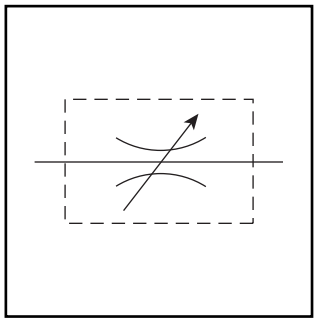
** At 100 PSIG inlet pressure with full pressure drop.

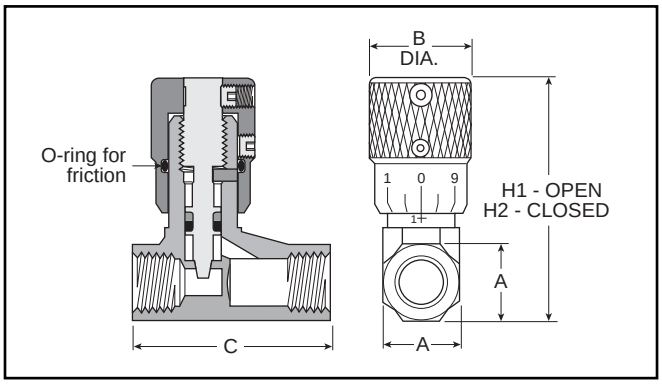
Model Selection Information and Dimensions

Model Number	03250 1000		03250 1250		03250 1500	
Port Size NPTF	1"		1-1/4"		1-1/2"	
	Inches	mm	Inches	mm	Inches	mm
A	5.00	127	5.00	127	5.88	149
B	6.50	165	6.50	165	8.00	203
C	3.00	76	3.00	76	3.75	95
D	3.25	83	3.25	83	3.50	89
E	2.25	57	2.25	57	2.50	64
F	.39	10	.39	10	.39	10
G	1.31	33	1.31	33	1.50	38
H	2.13	54	2.13	54	2.38	60

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General Information

“338” Series needle valves bi-directionally meter the flow of air through the valve.

This series features a fine tapered needle providing precise flow of air in both directions. Numerical micrometer position markings are stamped on the perimeter of the adjustment knob which provide a visual indication of the setting. Once the desired flow is selected, a set screw can be tightened to maintain the setting.

These valves are available with NPTF ports in 1/8", 1/4", 3/8" 1/2" and 3/4" sizes. This series is recommended for pneumatic service

Valve Specifications

Maximum Operating Pressure.....250 PSIG (Air)

Operating Temperature.....Standard: 0° to 180°F*
Extended Temperature..... 0°F to 300°F* (Consult factory)

* Ambient temperatures below freezing require moisture-free air. Ambient temperatures below freezing and above 180° require lubricants especially selected for suitability at these temperatures. Pneumatic valves should be used with filtered and lubricated air.

Component Materials

Body Material.....Brass

Internal Components.....Stainless Steel / Brass

Seals..... Nitrile (Fluorocarbon optional – consult factory)

Model Selection and Dimensions

Model Number	Port Size	Dimensions					Kit
		A	B	C	H1	H2	
00338 1100	1/8"	9/16"	0.75	1.47	2.03	1.81	00337 8000
00338 1101	1/4"	11/16"	0.75	1.47	2.28	2.03	00337 8001
00338 1102	3/8"	7/8"	0.88	2.31	2.84	2.53	00337 8002
00338 1103	1/2"	1-3/16"	1.06	3.25	3.62	3.22	00337 8003
00338 1104	3/4"	1-3/8"	1.06	3.25	3.72	3.31	00337 8004

Performance Data – Flow

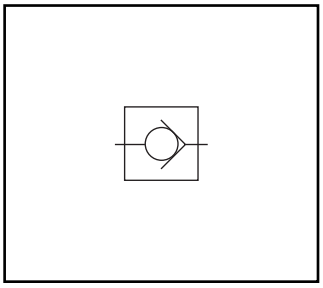
Model Number	Port Size	Flow (SCFM†)
00338 1100	1/8"	15
00338 1101	1/4"	28
00338 1102	3/8"	59
00338 1103	1/2"	126
00338 1104	3/4"	140

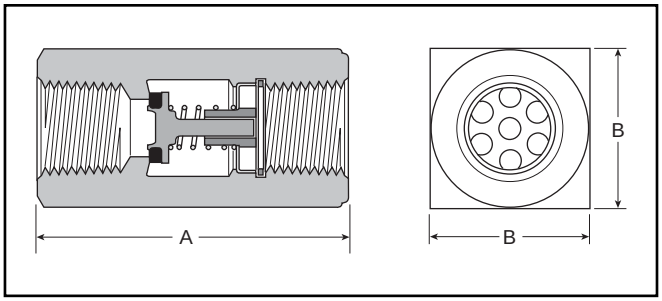
† At 100 PSIG inlet pressure with full pressure drop.

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“339” Series – 1/8" to 3/4" Ports







General Information

“339” Series check valves allow free flow in one direction and provide positive checked (zero flow) in the reverse direction. These valves are available with NPTF ports in 1/8", 1/4", 3/8", 1/2" & 3/4" sizes. This series is recommended for pneumatic service.

Valve Specifications

Maximum Operating Pressure:
250 PSIG
Cracking Pressure: 1 to 2 PSIG

Operating Temperature:
Standard: 0° to 180° F*
Extended Temperature Option: 0°F to 300°F*

* Ambient temperatures below freezing require moisture-free air. Ambient temperatures below freezing and above 180° require lubricants especially selected for suitability at these temperatures. Pneumatic valves should be used with filtered and lubricated air.

Component Materials

Body Material..... Brass

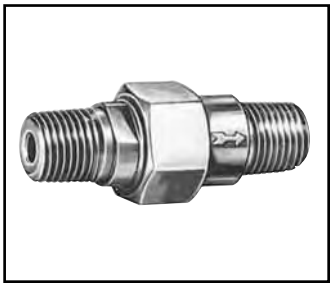
Internal Components.....Brass / Stainless Steel / Zinc-Plated Steel

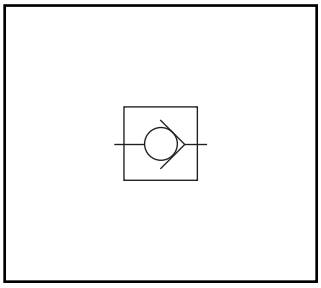
Seals..... Urethane (standard), Fluorocarbon (optional – consult factory)

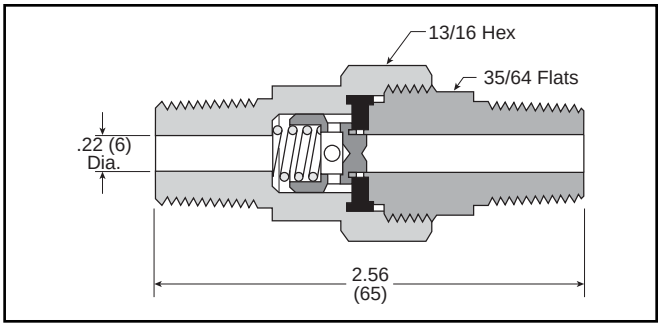
Model Selection and Dimensions

Model Number	Port Size	Flow† (SCFM)	Dimensions		Service Kit
			A	B	
00339 3000	1/8"	35	1.22	0.56	00337 8000
00339 3001	1/4"	75	1.34	0.69	00337 8001
00339 3002	3/8"	143	2.00	0.88	00337 8002
00339 3003	1/2"	162	2.56	1.19	00337 8003
00339 3004	3/4"	323	2.66	1.38	00337 8004

“3047” – 1/4" Male Pipe







General Information

“3047” Series check valves allow free flow in one direction and provide positive checked (zero flow) in the reverse direction. This valve is available with a male 1/4" NPTF connection and is recommended for pneumatic service.

Valve Specifications

Maximum Operating Pressure:
250 PSIG
Cracking Pressure: 1 to 2 PSIG

Operating Temperature:
Standard: 0° to 180° F*

* Ambient temperatures below freezing require moisture-free air. Ambient temperatures below freezing and above 180° require lubricants especially selected for suitability at these temperatures. Pneumatic valves should be used with filtered and lubricated air.

Component Materials

Body Material.....Brass

Internal Components.....Brass / Stainless Steel

Seals.....Nitrile

Model Selection

Model Number	Pipe Thread	Flow† (SCFM)
03047 0099	1/4"	30

† At 100 PSIG inlet pressure with full pressure drop.

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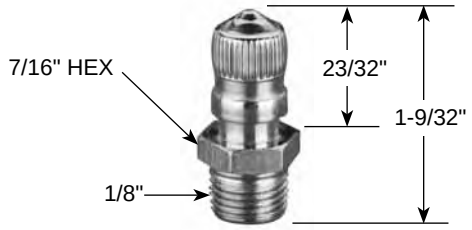
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Tank Valves

For tanks, steel barrels, compressors and other pneumatic containers where a dependable automatic air valve is needed. Equipped with standard valve core and sealing cap. Maximum operating pressure is 185 PSIG. Temperature range is -40°F to 220°F.

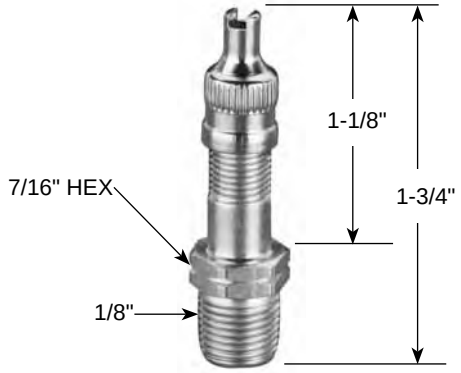
Model No. 09166 0060

Has a 1/8" pipe thread at bottom for minimum protrusion. N/P finish, dome shaped cap.
Packed 25 to a box.



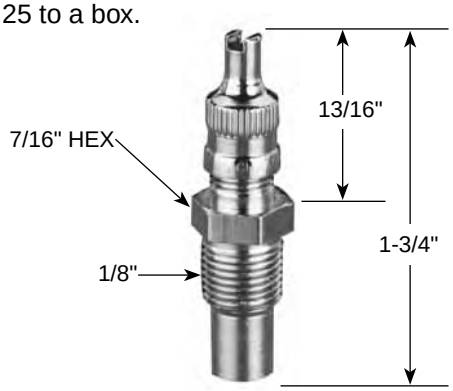
Model No. 00645 0060

A 1/8" pipe thread at bottom permits maximum protrusion. N/P finish, screwdriver type cap.
Packed 25 to a box.



Model No. 01468 0006

Has a 1/8" pipe thread part way up the stem which allows for minimum protrusion. N/P finish, has screwdriver type cap.
Packed 25 to a box.



Air Chucks

For regular airlines.

Model No. 05499 0000

Ball-foot air chuck, 1/4" female port.
Packed 10 to a box.



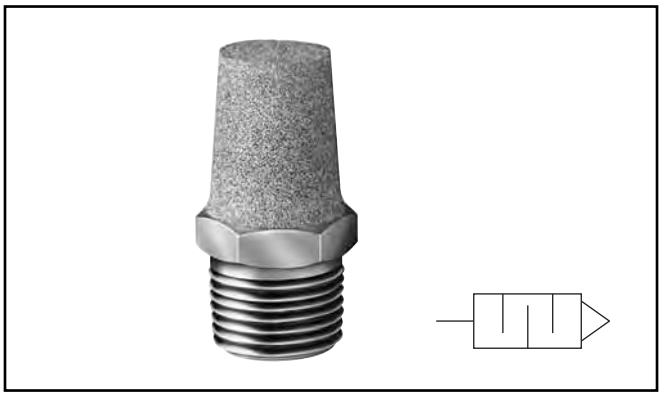
Model No. 06739 0000

Ball-foot air chuck with clip. Fits standard valve mouth. Saves holding on by hand. Has 1/4" port for connecting to hose.
Packed 10 to a box.



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“EM” Series – Sintered Bronze Muffler / Filters



General Description

Muffler / filters effectively reduce air exhaust noises to an industry accepted level with minimum flow restriction. They protect valves, impact wrenches, screw drivers and other air tools by preventing dirt and other foreign matter from entering the system. Non-corrosive. Can be cleaned with many common solvents.

Specifications

Maximum Operating Pressure.....250 PSIG (Air)

Operating Temperature ..... 0° to 300°F*

* Ambient temperatures below freezing require moisture-free air. Ambient temperatures below freezing and above 180° require lubricants especially selected for suitability at these temperatures. Pneumatic valves should be used with filtered and lubricated air.

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Model Number	Pipe Thread	Overall Length	Hex Size
EM12	1/8"	1.00	7/16"
EM25	1/4"	1.32	9/16"
EM37	3/8"	1.54	11/16"
EM50	1/2"	1.85	7/8"
EM75	3/4"	2.29	1-1/6"
EM100	1"	2.91	1-5/16"
EM125	1-1/4"	3.25	1-11/16"
EM150	1-1/2"	3.69	2"

Muffler / Flow Controls



General Description

Muffler / flow controls provide an acceptable exhaust noise level and effectively meter exhaust. Installed in valve exhaust ports, they control cylinder piston speeds throughout a wide range. The adjusting screw cannot be accidently blown out, can be locked to maintain setting. Brass and bronze construction. Clean with commonly used solvents.

Specifications

Maximum Operating Pressure.....250 PSIG (Air)

Operating Temperature ..... 0° to 300°F*

* Ambient temperatures below freezing require moisture-free air. Ambient temperatures below freezing and above 180° require lubricants especially selected for suitability at these temperatures. Pneumatic valves should be used with filtered and lubricated air.

Model Number	Pipe Thread	Overall Length	Hex Size
04502 0002	1/8"	1.15	9/16"
04504 0004	1/4"	1.42	1/2"
04506 0060	3/8"	1.49	11/16"
04508 0080	1/2"	1.77	7/8"
04512 0012	3/4"	1.98	1-1/16"
04516 0016	1"	2.15	1-5/16"

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Breather Vents



NOTE: Breather vents should not be used as exhaust mufflers.

General Description

These low silhouette versions of the muffler / filter are useful where space is a problem and / or to prevent contamination. Use for vacuum relief or pressure equalization in gear boxes, oil tanks, reservoirs, etc. Non-corrosive.

Specifications

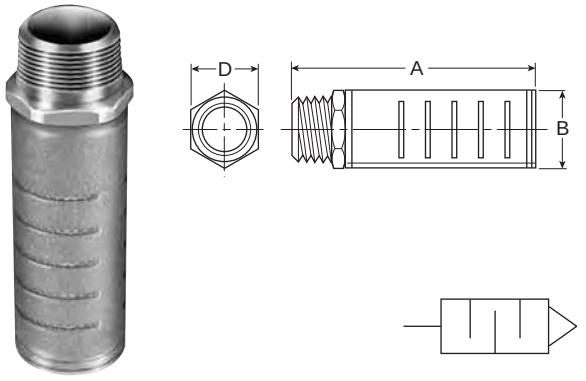
Maximum Operating Pressure.....150 PSIG (Air)

Operating Temperature ..... 0° to 300°F*

* Ambient temperatures below freezing require moisture-free air. Ambient temperatures below freezing and above 180° require lubricants especially selected for suitability at these temperatures. Pneumatic valves should be used with filtered and lubricated air.

Model Number	Pipe Thread	Overall Length	Hex Size
04702 0002	1/8"	0.44	7/16"
04704 0004	1/4"	0.63	9/16"
04706 0006	3/8"	0.75	11/16"
04708 0008	1/2"	0.88	7/8"
04712 0012	3/4"	1.00	1-1/6"
04716 0016	1"	1.31	1-5/16"
04720 0020	1-1/4"	1.41	1-11/16"
04724 0024	1-1/2"	1.50	2"

"ES" Series – Silencer



General Description

These low silhouette versions of the muffler / filter are useful where space is a problem and / or to prevent contamination. Use for vacuum relief or pressure equalization in gear boxes, oil tanks, reservoirs, etc. Non-corrosive.

The silencer is designed to give superior performance in noise control with a minimum effect on air efficiency. "Trimline" design allows location in the tightest places without extra plumbing and fittings. Fits directly into the exhaust port of more than 90% of present commercial valves. Slotted body permits rapid discharge of air without undesirable back pressure. Unique nylon screen element resists dirt buildup or clogging.

Specifications

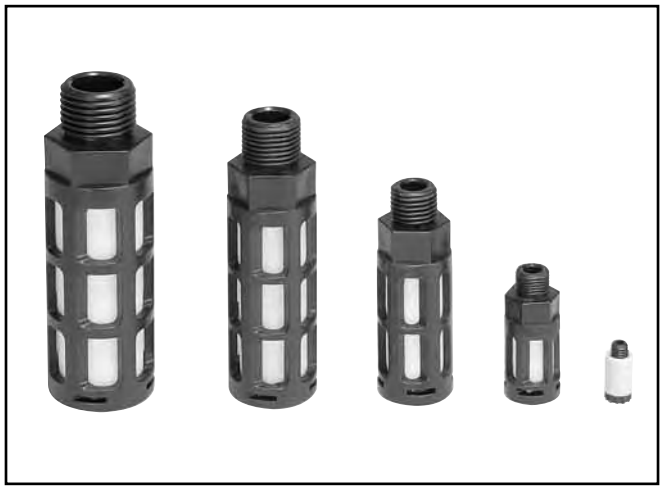
Maximum Operating Pressure.....250 PSIG (Air)

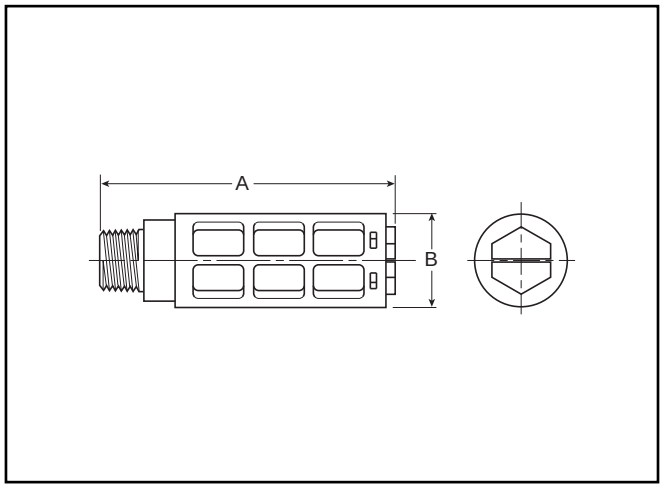
Operating Temperature ..... 0° to 300°F*

* Ambient temperatures below freezing require moisture-free air. Ambient temperatures below freezing and above 180° require lubricants especially selected for suitability at these temperatures. Pneumatic valves should be used with filtered and lubricated air.

Model Numbers		Pipe Thread	Flow SCFM @ 100 PSIG Inlet	Dimensions		
NPTF	BSPT (R)			A	B	D
ES12MC	**ESB12MC**	1/8"	115	1.85	0.81	0.63
ES25MC	**ESB25MC**	1/4"	129	1.85	0.81	0.63
ES37MC	**ESB37MC**	3/8"	219	3.31	1.26	1.00
ES50MC	**ESB50MC**	1/2"	549	3.31	1.26	1.00
ES75MC	**ESB75MC**	3/4"	893	4.56	2.01	1.62
ES100MC	**ESB100MC**	1"	1,013	4.56	2.01	1.62
ES125MC	**ESB125MC**	1-1/4"	1,486	5.69	2.88	—
ES150MC	**ESB150MC**	1-1/2"	1,580	5.69	2.88	—

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Features

- Compact
- Lightweight
- Easy to Install
- Excellent Noise Reduction
- Protects Components from Contamination
- NPT and BSPT Threads Available

Part Number		Thread Size	A (mm)	B (mm)	Maximum Flow (SCFM) 100 PSIG Inlet	Sound Pressure Level (dBA)	
NPT	BSPT					20 PSIG Inlet	100 PSIG Inlet
AS-5		M5	0.43 (11)	0.32 (8)	15	69	79
ASN-6	**AS-6**	1/8"	1.57 (40)	0.63 (16)	51	69	81
ASN-8	**AS-8**	1/4"	2.56 (65)	0.83 (21)	124	67	84
ASN-10	**AS-10**	3/8"	3.35 (85)	0.98 (25)	247	83	98
ASN-15	**AS-15**	1/2"	3.74 (95)	1.18 (30)	370	69	96

Application

The plastic silencer is designed to give excellent noise reduction with a minimum effect on air efficiency. The "Trimline" design allows for locating the silencer in the tightest places without extra plumbing or fittings. Fits directly into the exhaust port of most commercial valves. Open surface area of element allows for rapid discharge of air without undesirable back pressure.

Specifications

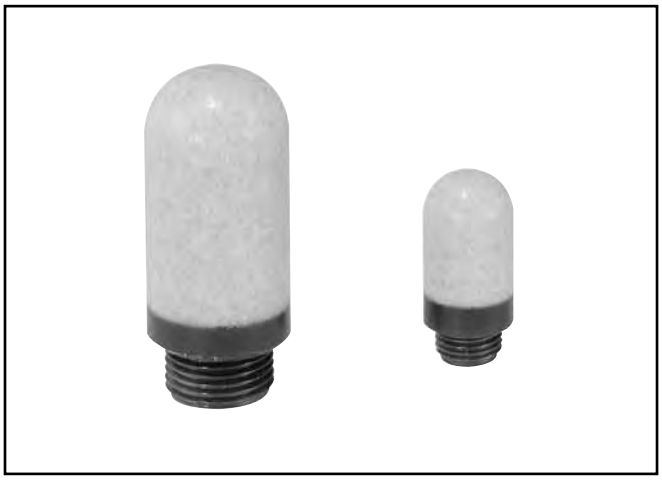
Pressure Rating.....0 to 150 PSIG (0 to 10 bar, 0 to 1034 kPa)

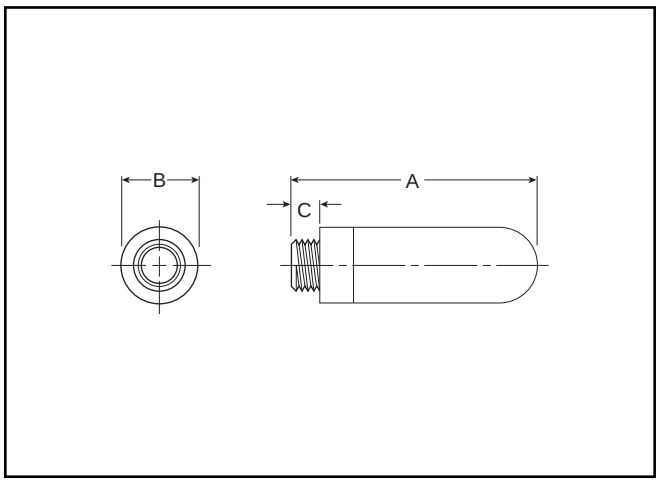
Temperature Rating .....14°F to 140°F (-10°C to 60°C)

Body .....Acetal (Plastic)

Element ..... Polyethylene

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E

Features

- All Plastic Ultra Light Weight Versions
- High Noise Level Reduction
- Low Back Pressure Generation

Application

The plastic silencer is designed to give excellent noise reduction with a minimum effect on air efficiency. The "Trimline" design allows for locating the silencer in the tightest places without extra plumbing or fittings. Fits directly into the exhaust port of most commercial valves. Open surface area of element allows for rapid discharge of air without undesirable back pressure.

Part Number	Port Thread	A	Diameter B	C	Weight (grams)
P6M-PAC5	M5	0.91 (23)	0.26 (6,5)	0.16 (4)	0.01
P6M-PAB1	G1/8	1.14 (29)	0.55 (14)	0.24 (6)	0.02
P6M-PAB2	G1/4	1.34 (34)	0.67 (17)	0.24 (6)	0.04
P6M-PAB3	G3/8	2.36 (60)	0.98 (25)	0.35 (9)	0.06
P6M-PAB4	G1/2	2.52 (64)	0.98 (25)	0.43 (11)	0.10
P6M-PAB6	G3/4	5.51 (140)	1.50 (38)	0.55 (14)	0.50
P6M-PAB8	G1	6.30 (160)	1.89 (48)	0.79 (20)	0.62

Specifications

Pressure Rating..... 0 to 246 PSIG
(0 to 17 bar, 0 to 1700 kPa)

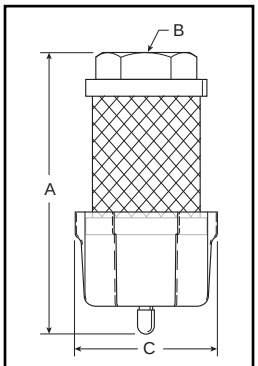
Temperature Rating

Plastic .....14°F to 176 °F (-10°C to 80°C)
Metal.....14°F to 165 °F (-10°C to 74°C)

Efficiency 92%

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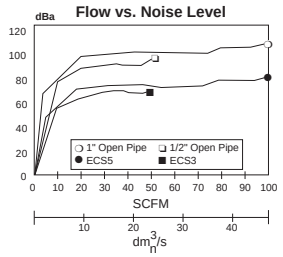


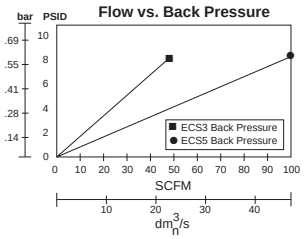


Dimensions:

Model	A	B	C
ECS3	5.30 (135 mm)	1/2" NPT	2.57 (65 mm)
ECS5	7.30 (185mm)	1" NPT	2.57 (65mm)

Performance Characteristics





Features

The ECS (Muffler-Reclassifier) eliminates unwanted oil mist and reduces exhaust noise from pneumatic valves, cylinders and air motors.

- 99.97% Oil Removal Efficiencies
- 25 dBA Noise Attenuation
- 1/2" NPT and 1" NPT
- Disposable Units
- Continuous or Plugged Drain Option
- Metal Retained Construction
- Fast Exhaust Time

Improve Overall Plant Environment

Exhaust oil mist and noise pollution have a direct impact on worker productivity.

Oil aerosol mist from lubricators and compressors is pervasive and enters the industrial plant environment through the exhaust ports of valves, cylinders and air motors. This rapidly expanding exhaust also produces sudden and excessive noise.

The ECS (Muffler-Reclassifier) is 99.97% efficient at removing the oil aerosols. The ECS also acts as a silencer to lower the dBA levels below O.S.H.A. requirements.

The result is a cleaner, quieter environment which equates to greater work productivity and safety.

Operation

Compressor oils and lubricating oils are exhausted from valves, cylinders and air motors into the ECS. Oil aerosols are “coalesced” into larger droplets and gravity pulls them into the attached drain sump. The sump can then be drained manually or by using a 1/4" ID plastic tube drain. The air flowing into the ECS is also muffled or silenced as it enters the inside of the ECS and passes through the filter media into the atmosphere.

Proven Technology

The ECS units are constructed from the same materials that go into our oil removal coalescing filter elements.

The seamless design insures media uniformity and strength. This proven technology provides high coalescing efficiency with low pressure drop.

The filter media is supported by cylindrical perforated steel retainers both inside and out. These retainers, fully plated for excellent corrosion resistance, give the ECS units high rupture strength in either flow direction. These filters can also be used as high efficiency inlet or bypass filters for vacuum pumps, or breather elements to protect the air above critical process liquids.

ECS3 / ECS5

The ECS solves two problems inherent in compressed air exhaust from valves, cylinders and air motors - oil mist removal and noise abatement.

The ECS will improve your industrial plant environment, thereby improving worker productivity.

Specifications

Maximum Operating Temperature .....125°F (52°C)

Maximum Line Pressure.....100 PSIG (6.8 bar)

Ordering Information

ECS	3	*

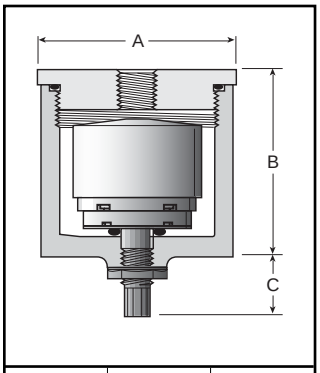
Size	Engineering Level
3 1/2 inch 5 1 Inch	* Will be entered at factory.

E

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Richland, Michigan
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Automatic Drip Leg Drain





A	B	C
2.50	2.37	0.87
64 mm	60 mm	22 mm

E

Features



- Auto Drain Ported 1/8" to Pipe Away Liquid
- Drain has Manual Override
- Easily Serviced without Tool
- 20-250 PSIG Range
- Compact Size

Specifications

Housing & Cap.....Aluminum

Port Threads..... 1/4" - 1/2" Top
1/8" Drain

Pressure and Temperature Ratings:

Metal Bowl..... 20 to 250 PSIG (0 to 17.2 bar)
32°F to 175°F (0°C to 80°C)

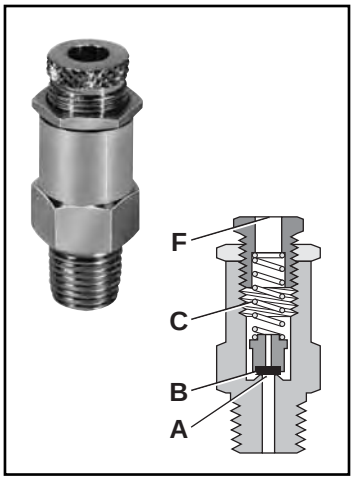
Seals.....Buna N

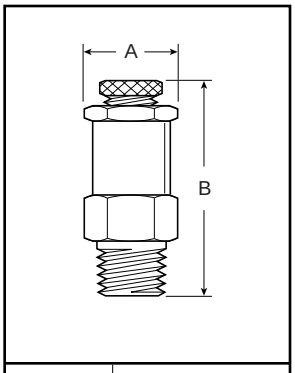
Ordering Information

Consists of Drip Leg Drain Housing WITH Auto Drain.

Model No.	Size
06D1NA	1/4"
06D3NA	1/2"

Relief Valve





A	B
0.75 Hex	1.88 - 2.25
19 mm	47.8 - 57.2 mm

Features

- Large Relief Capacity in a Compact Size
- Lightweight Aluminum Construction with Resilient Seat

Application

The RV01A1N Pop Off Relief Valve is designed to protect against excessive pressure buildup in a pneumatic circuit or system.

Operation*

With the relief valve mounted in a reservoir or system, the force of system pressure at **(A)** is offset by the force of spring **(C)** acting on poppet seat **(B)**. At pressures lower than the setting, the poppet seat **(B)** is held against the body at **(A)** effecting a seal. As pressure approaches set point, the poppet begins to vent until set point is reached, at which time the poppet seat **(B)** lifts off the body at **(A)** allowing the excess pressure to vent to atmosphere at **(F)**. When the excess pressure has been vented, the spring **(C)** acts on the poppet seat **(B)** forcing it to seat on the body at **(A)**, sealing off the flow of air.

Specification

Body & Adjusting Screw.....Aluminum

Locking Nut.....Steel

Seat.....Nitrile

Spring.....Steel

Poppet..... Plastic

Operating Temperature.....32°F to 200°F (0°C to 93°C)

Port Threads..... 1/4 Inch Male

Relief Range..... 10 to 200 PSIG (.7 to 14 bar)
with standard spring.

* Ref: 1RV100B Installation & Service Instructions

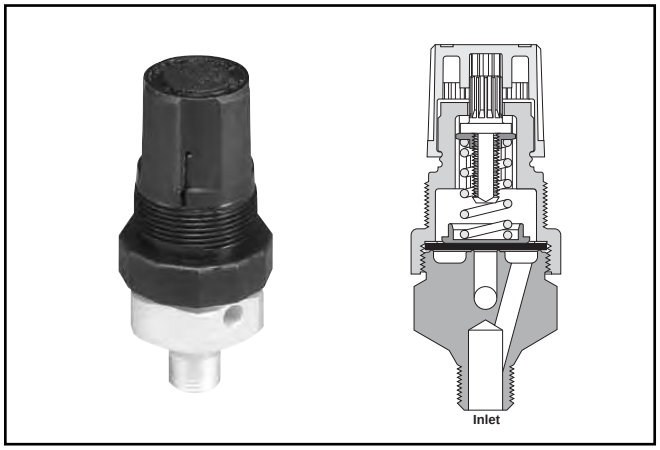
Ordering Information

Seals

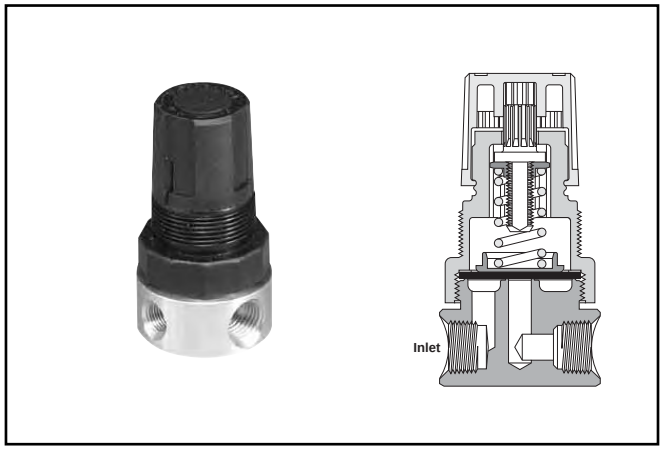
RV01A1N	XXX	
	10 -200 PSI	**Blank** **BUNA** V Flurocarbon

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130 Relief Valve



134 Relief Valve



Features

- Compact, Sensitive Diaphragm-type Relief Valve
- Push-pull, Locking Knob
- Knob and Top Work the Same as a Miniature Regulator
- 130 has Lightweight Aluminum Construction
- 134 has a brass body, captured exhaust and is an Inline Type with 3 Inlet Ports and 1 Outlet Port

Applications

- Designed to Protect Against Excessive Pressure Buildup in a Pneumatic Circuit or System
- For Use where Gradual Proportional Relief is Required

Operation

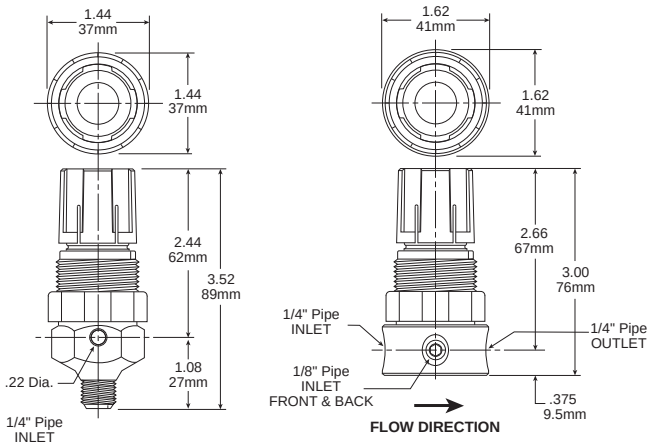
- Turn relief valve knob clockwise for maximum pressure.
- Set pressure going into relief valve at desired pressure.
- Turn relief valve knob counter-clockwise until exhaust starts to bleed.
- Turn relief valve knob clockwise until exhaust stops bleeding. Push to lock knob.

Ordering Information

Relief Valve	Spring Range			
	0-15 PSIG	0-25 PSIG	0-50 PSIG	0-100 PSIG
130	130-02AA 130-02AAP*	130-02A 130-02AP*	130-02B 130-02BP*	130-02C 130-02CP*
134	134-02AA 134-02AAP*	134-02A 134-02AP*	134-02B 134-02BP*	134-02C 134-02CP*

* Panel mount nut included.

Dimensions



130 **134**

Relief Valve Kits

Bonnet Assembly Kit PCKR364Y
Panel Mount Nut PR05X51

Specifications

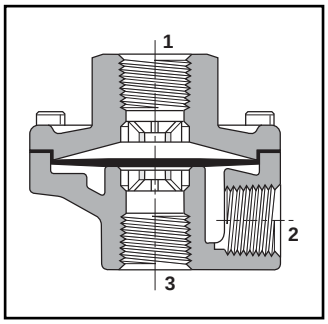
Relief Range .....0 to 100 PSIG (0 to 6.9 bar)
Maximum Inlet Pressure .....300 PSIG (20.7 bar)
Operating Temperature ..... 40°F to 120°F (4°C to 49°C)
Port Threads:
130 ..... 1/4" Pipe Male Only
134 .....Inlet Port – Two 1/8" & One 1/4" Pipe
Outlet Port – 1/4" Pipe

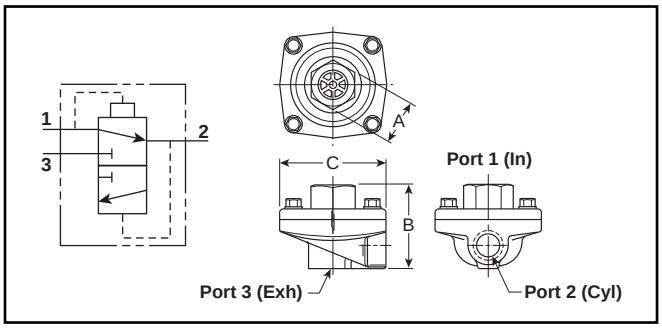
Materials of Construction

Adjusting Knob ..... Polypropylene
Adjusting Screw .....Zinc-plated Steel
Body .....Aluminum (130); Brass (134)
Diaphragm / Disc .....Buna-N
Nut .....Chromated Steel
Spring Cage .....Acetal
Spring .....Zinc-plated Steel

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E

General Information

Quick exhaust valves provide rapid exhaust of control air when placed between control valve and actuator. They can also be used as shuttle valves. Diaphragm materials are available in urethane, Nitrile, Fluorocarbon, and PTFE to meet a wide variety of operating conditions.

Valve Specifications

Operating Pressure (Air)

Maximum:

150 PSIG
200 PSIG for Model No. 0R37TB (PTFE diaphragm)

Minimum:

3 PSIG
50 PSIG for Model No. 0R37TB (PTFE diaphragm)

Operating Temperature:

Urethane: 0°F to 180°F* (-18°C to 80°C)
Nitrile: 0°F to 180°F* (-18°C to 80°C)
Fluorocarbon: 0°F to 400°F* (-18°C to 205°C)
PTFE: 0°F to 500°F* (-18°C to 260°C)

* Ambient temperatures below freezing require moisture-free air. Ambient temperatures below freezing and above 180° require lubricants especially selected for suitability at these temperatures. Pneumatic valves should be used with filtered and lubricated air.

Component Materials

Body Material..... Die cast aluminum

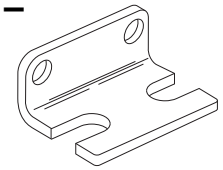
Static Seals.....Nitrile standard with urethane (Others see below)

Diaphragm ..... Standard – Urethane
Optional – Fluorocarbon, PTFE, or Nitrile (Depending on size)

Mounting Bracket Kit – No. 03640 8100

(Including body screws)

For "0R12" and "0R25" sizes with 7/8" "A" Dimension.



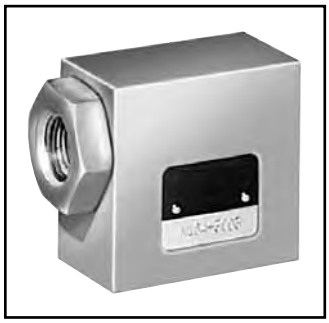
Model Selection, Performance Data and Dimensions

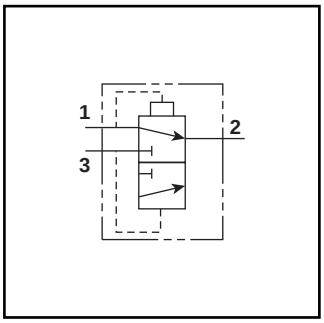
Port			Flow	Model Number		A	B	C	Service
1	2	3	(SCFM†)	NPTF	BSPP "G"				Kit No.
STANDARD URETHANE DIAPHRAGMS (Nitrile static seals)									
1/8"	1/8"	1/8"	70	**0R12B**	0RB12B	7/8" Sq.	1.75	1.88	03640 8000
	1/8"	1/4"	70	**0R12NB**	0RB12NB	7/8" Sq.	1.75	1.88	03640 8000
1/4"	1/4"	1/4"	90	**0R25B**	0RB25B	7/8" Sq.	1.75	1.88	03640 8000
	1/4"	3/8"	150	**0R25NB**	0RB25NB	1" Hex	2.06	2.44	03340 0105
	3/8"	3/8"	240	**0R25PB**	—	1" Hex	2.06	2.44	03340 0105
3/8"	3/8"	3/8"	240	**0R37B**	0RB37B	1" Hex	2.06	2.44	03340 0105
1/2"	1/2"	1/2"	450	**0R50B**	0RB50B	1-1/2" Hex	2.88	3.38	03475 0109
3/4"	3/4"	3/4"	550	**0R75B**	0RB75B	1-1/2" Hex	2.88	3.38	03475 0109
NITRILE DIAPHRAGMS (Nitrile static seals)									
1/4"	1/4"	3/8"	90	0R25NFB	0RB25NFB	7/8" Sq.	1.75	1.88	03340 8000
3/8"	3/8"	3/8"	240	0R37FB	0RB37FB	1" Hex	2.06	2.44	03340 8000
3/4"	3/4"	3/4"	550	0R75FB	0RB75FB	1-1/2" Hex	2.88	3.38	03475 9000
FLUOROCARBON DIAPHRAGMS for extended temperature operation (Fluorocarbon static seals)									
1/8"	1/8"	1/8"	70	0R12VB	0RB12VB	7/8" Sq.	1.75	1.88	03650 8000
	1/8"	1/4"	70	0R12NVB	0RB12NVB	7/8" Sq.	1.75	1.88	03650 8000
1/4"	1/4"	1/4"	90	0R25VB	0RB25VB	7/8" Sq.	1.75	1.88	03650 8000
3/8"	3/8"	3/8"	240	0R37VB	0RB37VB	1" Hex	2.06	2.44	03340 0319
1/2"	1/2"	1/2"	450	0R50VB	0RB50VB	1-1/2" Hex	2.88	3.38	03475 0120
3/4"	3/4"	3/4"	550	0R75VB	0RB75VB	1-1/2" Hex	2.88	3.38	03475 0120
PTFE DIAPHRAGMS for higher pressure and temperature (Fibre static seals)									
3/8"	3/8"	3/8"	240	0R37TB	0RB37TB	1" Hex	2.06	2.44	03340 0504

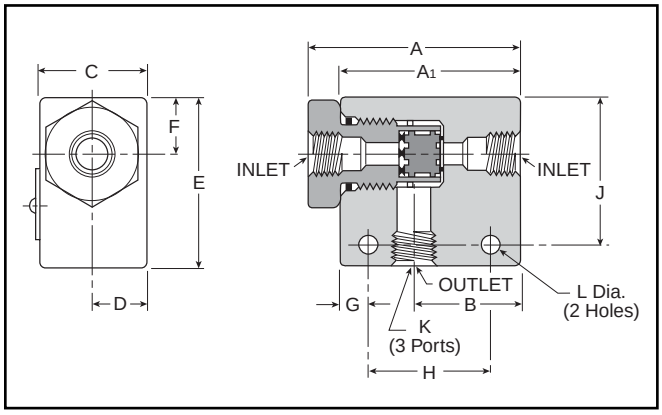
† At 100 PSIG inlet pressure with full pressure drop.

BOLD ITEMS ARE MOST POPULAR.

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Pneumatic Division
Richland, Michigan
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General Information

Shuttle valves determine a single pneumatic output from two separate inputs. If pressure is applied to both ports simultaneously, the valve will select the port with the higher pressure.

Valve Specifications

Maximum Operating Pressure.....200 PSIG Maximum
3 PSIG Minimum: Differential Pressure

Operating Temperature .....0° to 160°F*

* Ambient temperatures below freezing require moisture-free air. Ambient temperatures below freezing and above 180° require lubricants especially selected for suitability at these temperatures. Pneumatic valves should be used with filtered and lubricated air.

E

Component Materials

Body Material.....Aluminum
Internal Components..... Aluminum
Seals.....Nitrile

Model Selection and Dimensions

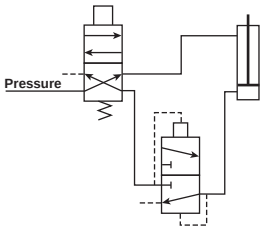
Model Number	Port Size	Dimensions											
		A	A1	B	C	D	E	F	G	H	J	K	L
N164 1001	1/8"	N/A	1.62	0.81	0.62	0.31	1.00	0.281	0.312	1.00	0.75	1/8 - 27	0.219
N164 2003	1/4"	2.50	2.12	1.25	1.25	0.62	2.00	0.67	0.265	1.25	1.35	1/4 - 18	0.219
N164 3003	3/8"	2.50	2.12	1.25	1.25	0.62	2.00	0.67	0.265	1.25	1.35	3/8 - 16	0.219

Performance Data – Flow

Model Number	Port Size	Flow (Cv)
N164 1001	1/8"	0.32
N164 2003	1/4"	1.65
N164 3003	3/8"	2.02

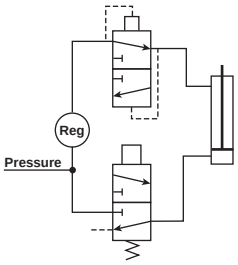
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Typical "Quick Exhaust Valve" Applications



Rapid Retraction – Double Acting Cylinder

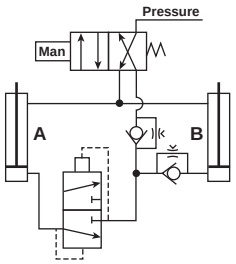
In this circuit, air is exhausted through a Quick Exhaust Valve that is **close coupled** to the cap end of the cylinder. Because the Quick Exhaust Valve has a greater exhaust capacity than the four-way Control Valve, increased cylinder speed can be accomplished with a smaller and less expensive control valve.



Dual Pressure Actuation of Double Acting Cylinder

This circuit utilizes a Quick Exhaust Valve and a three-way Control Valve to permit rapid extension of the cylinder at a high pressure. nder life.

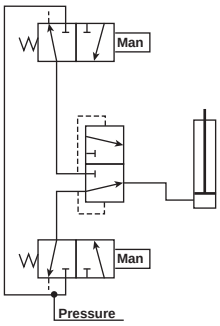
NOTE: Line pressure must be 3 or 4 times greater than rod end pressure. Effective working pressure is the differential between the cap and rod end.



Bi-Directional Control of Two Double Acting Cylinders

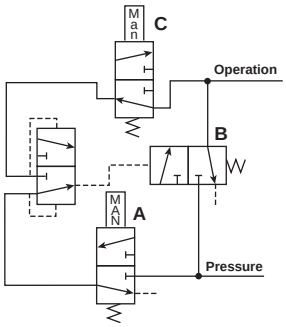
This circuit provides maximum control with a minimum of valving. A large four-way Control Valve is not needed to permit the rapid retraction of Cylinder A, as the Quick Exhaust Valve performs this function. The extension of Cylinders A and B and retraction of Cylinder B are controlled by Speed Control Valves.

Typical "Shuttle Valve" Applications



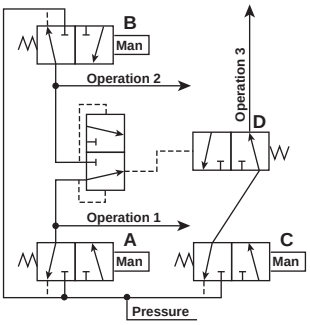
"OR" Circuit

The most common application of the Shuttle Valve is the "OR" Circuit. Here a cylinder or other work device can be actuated by either control valve. The valves can be manually or electrically actuated and located in any position.



Memory Circuit

This circuit enables continuous operation once initiated. Pressure is delivered to the circuit when Valve A is actuated. This allows pressure to pass through the shuttle valve actuating Valve B. Pressure then flows through Valve B and also the other side of the shuttle valve which holds Valve B open for continuous operation. To unlock the circuit, Valve C must be opened to exhaust the circuit and allow Valve B to return to its normally closed position.

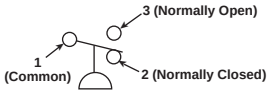


Interlock

This circuit prevents the occurrence of a specific operation while one or another operation takes place. When either Valve A or B is actuated to perform operation 1 or 2, Valve D is shifted to the closed position and prevents operation 3 from occurring.

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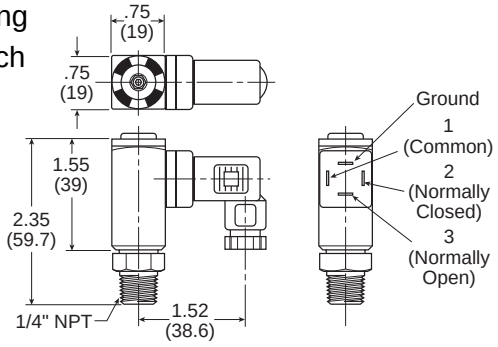
Pressure Switch – P01909





Features:

- Inline Mounting
- Dial Indicator for Easy Pressure Setting
- 5 amp Rated Snap Action Micro Switch
- Heavy Duty Aluminum Components
- Compact Size
- DIN 43650HCM Connector
- IP65 Rated
- Field Adjustable 30-150 PSIG
- +/- 2% Repeatability
- Single Pole/Double Throw Switch

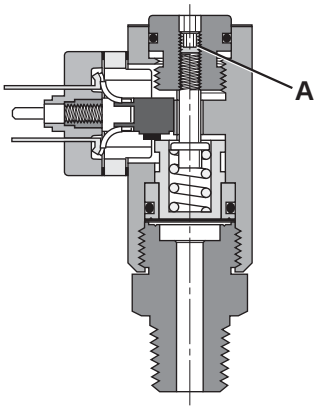


E

Operation

The pressure switch monitors the air pressure in your pneumatic system. When the pressure in your system either drops below or exceeds the set point pressure, an electrical output is given.

Using a 0.125" (3mm) hex wrench, turn the adjusting screw **(A)** clockwise to increase the pressure set point and counterclockwise to decrease the pressure setting. One complete revolution of the adjusting screw covers the complete adjustment range of 30 to 150 PSIG (2 to 10 bar).



Definitions and Terminology

Repeatability — Accuracy is the maximum allowable set point deviation of a single pressure or temperature switch under one given set of environmental and operational conditions.

Single Pole Double Throw (SPDT) Switching element — A SPDT switching element has one normally open, one normally closed and one common terminal. Three terminals mean that the switch can be wired with the circuit either normally open (NO), or normally closed (NC), or both.

Dead Band — The dead band, sometimes referred to as “differential” or “hysterisis”, is the change in pressure between actuation and deactuation set points.

Kits and Accessories

Bushing 1/4" to 3/8" 209P-6-4
Bushing 1/4" to 1/2" 209P-8-4

Specifications

Electrical ..... 5 AMP, 12/24VDC, 125/250VAC
Maximum Inlet Pressure ..... 300 PSIG (20 bar)
Mechanical Life ..... 10^6 at standard operating conditions
Electrical Connection ..... DIN 43650HCM
Electrical Protection IP65
Repeatability ..... ±2% at 70°F (20°C) Ambient
Temperature Range ..... -40°F to 180°F (-40°C to 80°C)
Weight ..... 0.13 lb. (0.06 Kg)

Materials of Construction

Diaphragm ..... Nitrile
Housing ..... Anodized Aluminum

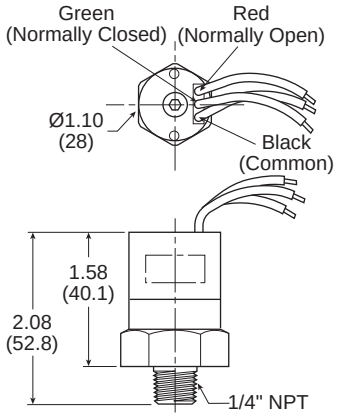
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Pressure Switch – P01908



Features:

- Inline Mounting
- 5 amp Rated Snap Action Micro Switch
- Brass Body
- Compact Size
- Flying Leads Electrical Connection
- IP65 Rated
- Field Adjustable 25-100 PSIG
- +/- 2% Repeatability
- Single Pole / Double Throw Switch



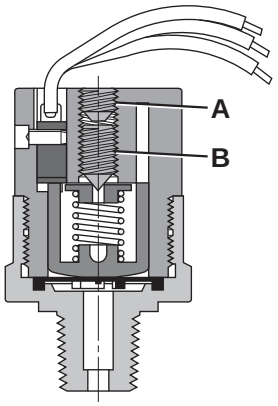
E

Operation

The pressure switch monitors the air pressure in your pneumatic system. When the pressure in your system either drops below or exceeds the set point pressure, an electrical output is given.

Remove screw **(A)** from the top of the switch. Using a 0.125" (3mm) hex wrench, turn the adjusting screw **(B)** clockwise to increase the pressure set point and counterclockwise to decrease the pressure setting, replace screw **(A)**. Adjustment range of 25 to 100 PSIG (1.7 to 7.5 bar).

Standard electrical circuit
Black..... Common
Green..... Normally Closed
Red..... Normally Open



Definitions and Terminology

Repeatability — Accuracy is the maximum allowable set point deviation of a single pressure or temperature switch under one given set of environmental and operational conditions.

Single Pole Double Throw (SPDT) Switching element — A SPDT switching element has one normally open, one normally closed and one common terminal. Three terminals mean that the switch can be wired with the circuit either normally open (NO), or normally closed (NC), or both.

Dead Band — The dead band, sometimes referred to as “differential” or “hysterisis”, is the change in pressure between actuation and deactuation set points.

Kits and Accessories

Bushing 1/4" to 3/8" 209P-6-4
Bushing 1/4" to 1/2" 209P-8-4

Specifications

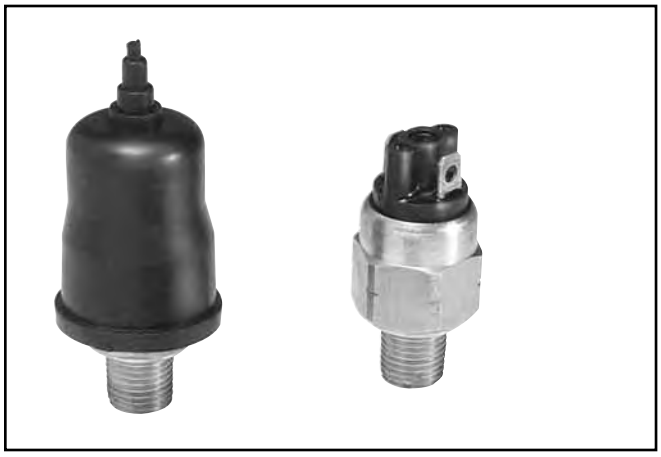
Electrical ..... 5 AMP, 12/24VDC, 125/250VAC
Maximum Inlet Pressure ..... 300 PSIG (20 bar)
Mechanical Life ..... $2x10^6$ at 75 PSIG (5 bar)
Electrical Connection ..... 18" Flying Leads
Electrical Protection IP65
Repeatability ..... ±2% at 70°F (20°C) Ambient
Temperature Range ..... -40°F to 180°F (-40°C to 80°C)
Weight ..... 0.23 lb. (0.11 Kg)

Materials of Construction

Diaphragm ..... Nitrile
Housing ..... Brass

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Mobile Pressure Switch
P04159 – Normally Closed
P04160 – Normally Open



Features:

- Inline Mounting
- 4 Amp Rated Snap Action Micro Switch
- Brass Body
- Compact Size
- Spade Electrical Connection
- Field Adjustable 15 to 150 PSIG
- Rubber Boot Protection
- ±5% Repeatability @ 70°F (20°C) Ambient Temperature
- Temperature Range -40°F to 220°F (-40°C to 105°C)

Applications

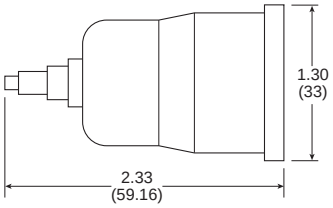
These Pressure Switches are intended for use in mobile, general-purpose, compressed air systems. Product is suitable for all trailer air-ride systems, truck suspension systems, associated bus door systems, and electro-pneumatic operations. The performance requirements and reliability are suitable for the extreme cold weather environment of North American winters.

Operation

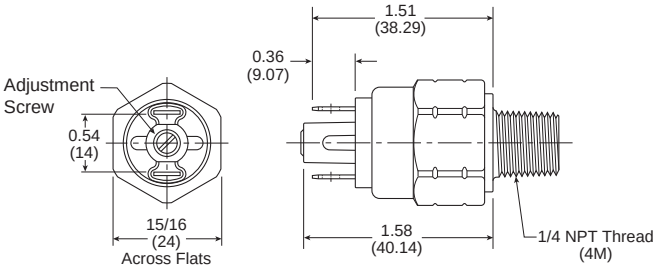
The pressure switch monitors air pressure and provides an electrical output when the pressure drops below or exceeds an adjustable preset pressure.

Adjust the pressure switch using a flat head screwdriver; turn adjustment screw clockwise to increase set point or counterclockwise to decrease set point.

Dimensions



Rubber Boot



Kits and Accessories

Rubber Boot P04161

Specifications

Switch Position
P04159 ..... Normally Closed
P04160 ..... Normally Open

Electrical Rating 100VA

Electrical Life ..... 4 Amp in Rush @ 12VDC
>2,000,000 Cycles

Maximum Inlet Pressure ..... 300 PSIG (20 bar)

Mechanical Life ..... >2 x 10^6 @ 75 PSIG (5 bar)

Electrical Connection ..... 1/4 x 1/32 Spade

Electrical Protection ..... Rubber Boot

Repeatability ..... ±5% @ 70°F (20°C)

Ambient & Medium
Temperature Range ..... -40°F to 220°F
(-40°C to 105°C)

Weight ..... 0.14 lb. (0.06 Kg)

Materials of Construction

Diaphragm ..... Kapton

Housing ..... Brass

E

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Automatic Electrical Drain Valve WDV3-G



WDV3-G

E

The WDV3 Electrical Drain is designed to remove condensate from compressors, compressed air dryers and receivers up to any size, type or manufacturer.

The WDV3 offers true installation simplicity and it is recognized as the most reliable and best performing condensate drain worldwide. The large orifice in the direct acting valve, combined with its sophisticated timer module ensure many years of trouble-free draining of condensate.

Specifications

Operating Pressure..... 230 PSIG (15,9 bar)

Ambient Operating Range Temperature:
34° to 130°F (1.1° to 54°C)

Coil Insulation
Class H .....340°F (171.1°C)

Voltages
AC 115, 230/50-60

Timer:
Open Time..... .5 to 10 sec., Adjustable
Cycle Time..... .5 sec. to 45 min., Adjustable

Maximum Current Rating .....4mA Max.

Port Size..... 1/4, 3/8, 1/2 NPT

Weight ..... 1.8 lb. (0.8 kg)

Materials of Construction

Valve Body.....Brass / Stainless Steel

Enclosure (NEMA 4)..... ABS Plastic

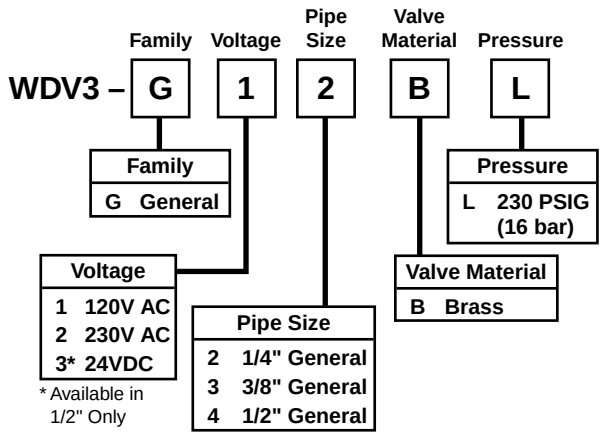
Internal Parts .....Brass / Stainless Steel

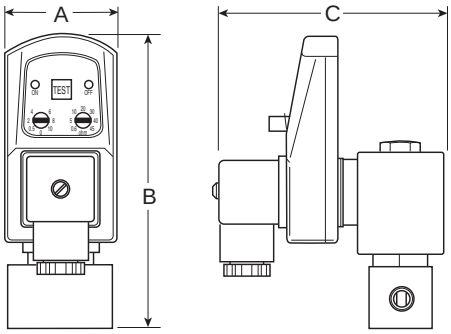
Sealing Material..... FPM (Fluorocarbon)

Benefits

- Does Not Air-Lock During Operation
- Compressed Air Systems Up to Any Size
- Also Available In Stainless Steel
- The Direct Acting Valve Is Serviceable
- Suitable for All Types of Compressors
- TEST (Micro-Switch) Feature
- High Time Cycle Accuracy
- Large (4.5mm) Valve Orifice

Ordering Information





Model Selection and Dimensions

Model Number	A	B	C
WDV3-G**BL	1.73 (44)	4.53 (115)	3.46 (88)

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Zero Loss Drain – WDV2



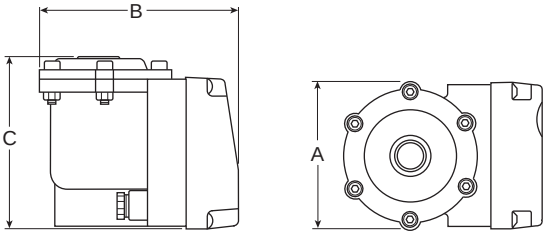
WDV2-425

Features

- Zero Air Loss
- Automatically Self-Adjusting for Voltages from 110 to 230V
- Sensor Device with No Moving Parts
- Sophisticated Electronic Controls
- Alarm with Remote Contacts
- Large Inlet Port to Eliminate Clogging
- Manual Push-to-Test Button
- Automatically Clears Slugs

Benefits

- Energy Efficient
- World-Wide Applications
- Long Life
- High Reliability
- Versatility, Early Warning
- Low Maintenance
- On Demand Operation
- Maintenance Free



Model Selection and Dimensions

Model Number	A	B	C
WDV2-425	3.23 (82)	4.61 (117)	4.65 (118)

Specifications

Drain Volume .....0.01 Gallons / Cycle
Maximum Fluid Temperature .....150°F (60°C)
Voltage .....110 to 240V, 50/60 Hz
Inlet Ports (2) ..... 1/2" NPT
Outlet Ports (1) ..... 5/16" (8mm) I.D. Hose

Operating Conditions

Ambient Temperature .....33° to 140°F (0° to 60°C)
Maximum Operating Pressure ..... 232 PSIG (16 bar)

The WDV2 Electronic Demand Drain Valves, with zero air loss, are suitable for all compressed air system applications from aftercoolers to filters to receivers to refrigerated dryers. These drain valves activate automatically and are both reliable and economical.

E

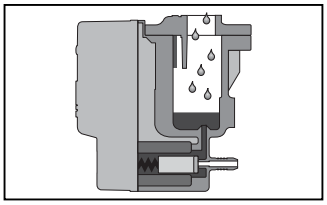
Alarm Mode

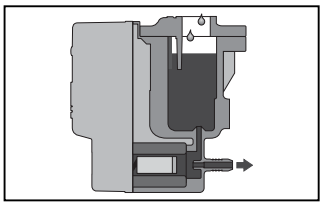
Should the drain fail to discharge due to an excessive volume of condensate or blocked outlet piping, an alarm condition is activated. During the alarm condition, the drain cycles continuously in an attempt to remove the excess condensate. At the same time, the volt free alarm contacts change state and the normally green power LED flashes to indicate a problem. When the excess condensate or blockage has been cleared, the drain will resume normal operation.

Operation

1. Upon power up, the outlet valve is closed and sensor is constantly monitoring for presence of liquid.

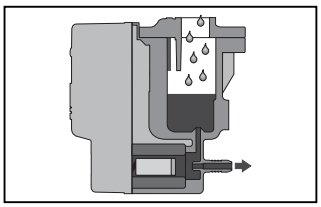
2. When condensate is detected by the sensor, the outlet valve is opened for a pre-set time.

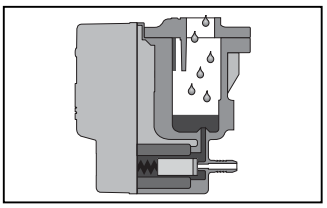




3. The condensate is discharged from the outlet port, due to the system pressure acting on the top of the liquid.

4. The outlet valve is closed after a pre-set time has expired. The opening time has been calculated to always ensure a small amount of liquid remains in bowl. This liquid acts as a seal, preventing air loss.





Level monitoring and discharge operation are continuous.

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Control Panel Products

Human / Machine Dialog

Section F

www.parker.com/pneu/cpp

F

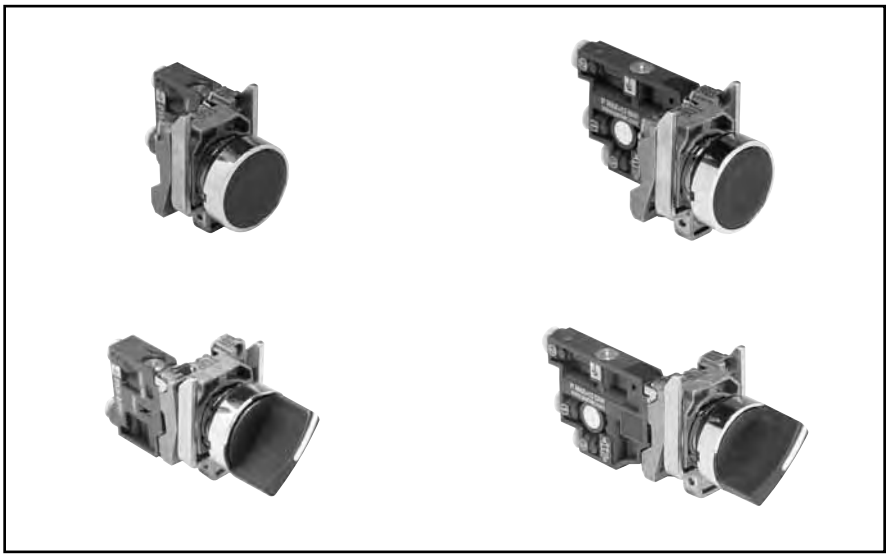


Basic Features F2-F3
Push Button, Selector Switches with Bodies F4
Push Buttons F5
Selector Switches F6
Valve Bodies & Accessories F7
Dimensions & Assembly F8
Legend Plates, Specifications F9
Mounting F10
Visual Indicators 22mm (7/8") F11
Rotary Selector Switches, 22mm (7/8") F12
Joystick Operators F13
Foot Pedal Operated Switches F14
Two-Hand Controls F15-F16

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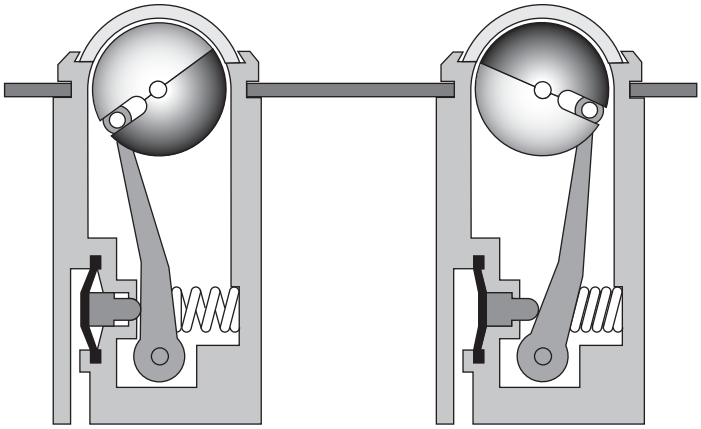
Push Buttons / Selector Switches

HUMAN-MACHINE DIALOG requires devices such as push buttons and selector switches to provide command inputs. A wide variety of these devices is available to meet most application needs. Both pneumatic and electrical switch bodies are available to match system technology. All of these devices use the 22 mm (7/8") mounting standard.



Pneumatic Visual Indicators

An indicator ball is rotated by a pneumatic input, changing the visible color. The ball sits behind a clear plastic window, providing a wide field of view. The visual indicators are available in five brightly colored Day-Glow paints for increased visibility. Like push buttons and selector switches, visual indicators use the 22mm (7/8") mounting standard.



Unactuated State **Actuated State**

Foot Pedal Switches

When the application requires the use of foot pedals, these devices can be used to initiate a cycle or a step within a cycle. A metal foot pedal is available with protective guard.



Metal Model



Plastic Model

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Modular Pneumatic / Electric Push Buttons

As with electrical contact switches, pneumatic valve modules can be mounted on a number of different operating heads.

- Pneumatic normally non passing (NNP) is equivalent to electrical normally open (N.O.).
- Pneumatic normally passing (NP) is equivalent to electrical normally closed (N.C.).

Note: Electrical switches can be stacked, but the rear connection on pneumatic switches prevents stacking. Therefore, when mixing electrical and pneumatic switch bodies on the same operator, the pneumatic switch must be mounted last.



PXBB3911

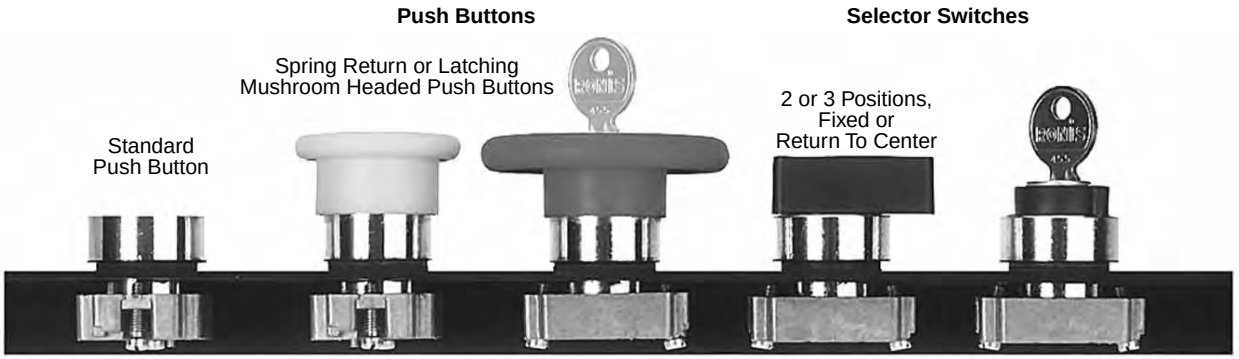


PXBB4932



PXBB4931

F



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With 3/2 Valve Bodies 5/32" Instant Straight Connections

Flush Push Buttons



PXBB3111BA2



PXBB4131BA2

Part Number	Color	Function	Type of Switching*
PXBB3111BA2	Black	Spring Return	NNP
PXBB3111BA3	Green		
PXBB3111BA4	Red		
PXBB3251BA2	Black	Spring Return	NNP+NP
PXBB4131BA2	Black	Spring Return	Single Universal 3-Way
PXBB4131BA3	Green		
PXBB4131BA4	Red		
PXBB4231BA2	Black	Spring Return	Dual Universal 3-Way

* Type of switching: Universal 3-way: valve can be connected either as NP or NNP as required by connecting the primary air supply to port 1 or port 3.

Note: Mount up to three valves on mounting ring.

Mushroom Head Push Buttons

(40mm Diameter)



PXBB3111BC2



PXBB4131BC2

Part Number	Color	Function	Type of Switching*
PXBB3111BC2	Black	Spring Return	NNP
PXBB3111BT4	Red	Push-Pul	
PXBB3121BT4	Red	Push-Pull	NP
PXBB4131BC2	Black	Spring Return	Single Universal 3-Way
PXBB4131BT4	Red	Push-Pull	

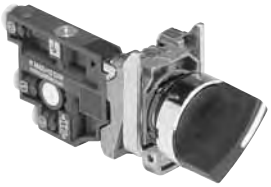
* Type of switching: Universal 3-way: valve can be connected either as NP or NNP as required by connecting the primary air supply to port 1 or port 3.

Note: Mount up to three valves on mounting ring.

Selector Switches



PXBB3111BD2



PXBB4131BD2

Part Number	Color	Function	Type of Switching*
PXBB3111BD2	Black	2 Maintained	NNP
PXBB3211BD2	Black	Positions with	NNP+NNP
PXBB3251BD2	Black	Std. Handle	NNP+NP
PXBB3211BD3	Black	3 Maintained Positions with Std. Handle	NNP+NNP
PXBB3251BD3	Black		NNP+NP
PXBB3211BJ5	Black	3 Positions, Spring Return to Center with Long Handle	NNP+NNP
PXBB4131BD2	Black	2 Maintained Positions with Std. Handle	Single Universal 3-Way
PXBB4231BD2	Black	2 Maintained Positions with Std. Handle	Dual Universal 3-Way
PXBB4231BD3	Black	3 Maintained Positions with Std. Handle	Dual Universal 3-Way
PXBB4231BJ5	Black	3 Maintained Positions with Long Handle	Dual Universal 3-Way

* Type of switching: Universal 3-way: valve can be connected either as NP or NNP as required by connecting the primary air supply to port 1 or port 3.

NOTE: BOLD ITEMS ARE READY (STOCK)

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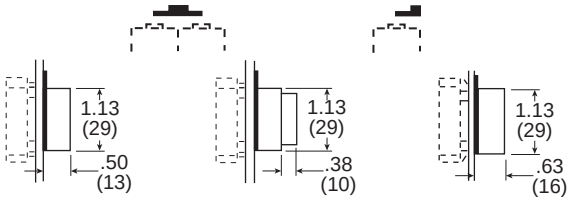
For Use With PXBB Valve Bodies and ZBE Electrical Switch Bodies

Push Buttons


ZB4BA4


ZB4BL2


ZB4BP2



Flush Extended Booted

Plastic Head ZB5**	Metal Head ZB4*			
Part Number	**Part Number**	**Color**	**Function**	**Description**
ZB5AA2	**ZB4BA2**	Black	Spring Return	Flush
ZB5AA3	**ZB4BA3**	Green		
ZB5AA4	**ZB4BA4**	Red		
—	ZB4BA5	Yellow		
—	ZB4BA6	Blue		
ZB5AL2	**ZB4BL2**	Black	Spring Return	Extended
ZB5AL3	**ZB4BL3**	Green		
ZB5AL4	**ZB4BL4**	Red		
—	ZB4BL5	Yellow		
—	ZB4BP2	Black	Spring Return	Booted
—	ZB4BP3	Green		
—	ZB4BP4	Red		

* ZB4*** Model Numbers are Metal Head Operators

** ZB5*** Model Numbers are Plasticl Head Operators

Push / Push Buttons


ZB4BH02

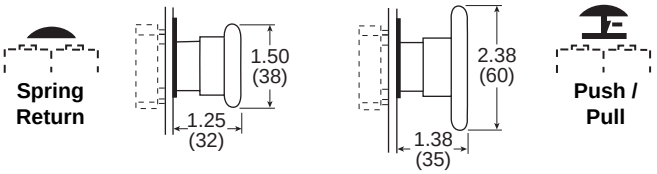
Part Number*	Color	Function	Description
ZB4BH02	Black	Detent 2-Position	Flush
ZB4BH03	Green		
ZB4BH04	Red		

* ZB4**** Model Numbers are Metal Head Operators

Mushroom Head Push Buttons


ZB4BC2


ZB4BR2



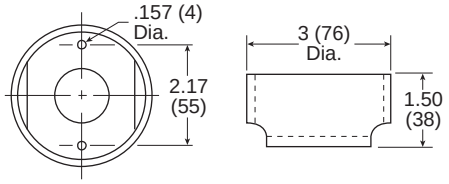
Part Number*	Color	Function	Description
ZB4BC2	Black	Spring Return	Ø 40mm Head
ZB4BC3	Green		
ZB4BC4	Red		
ZB4BT2	Black	Latching Push-Pull	
ZB4BT4	Red		
ZB4BR2	Black	Spring Return	Ø 60mm Head
ZB4BR3	Green		
ZB4BR4	Red		

* ZB4*** Model Numbers are Metal Head Operators

Mounting Accessories


ZB2BZ19


ZB5AZ905



Part Number	Color	Description
ZB2BZ19	Black Plastic	Guard for 60mm Mushroom Heads
ZB5AZ905	—	Plastic Head (ZB5) Mounting Nut Tightening Tool

NOTE: BOLD ITEMS ARE READY (STOCK)

F

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For Use With PXBB Variable Composition Switch Bodies

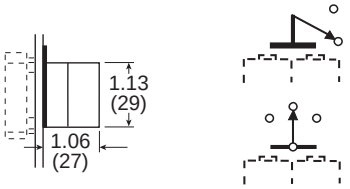
Selector Switches



ZB4BD3



ZB4BJ3



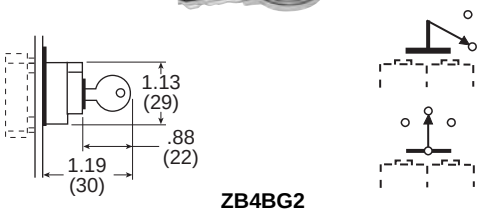
Standard Selector **Knob Lever**

Standard Black Handle		
Part Number*	**Description**	**Function**
ZB4BD2	Maintained	2-Positions
ZB4BD4	Spring Return from Right to Left	
ZB4BD3	Maintained	3-Positions
ZB4BD5	Spring Return to Center from Left and Right	
ZB4BD7	Maintained Right Spring Return from Left to Center	3-Positions
ZB4BD8	Maintained Left Spring Return from Right to Center	3-Positions
Long Black Handle		
ZB4BJ2	Maintained	2-Positions
ZB4BJ4	Spring Return from Right to Left	
ZB4BJ3	Maintained	3-Positions
ZB4BJ5	Spring Return to Center from Left and Right	

* ZB4*** Model Numbers are Metal Head Operators

Key Operated Selectors



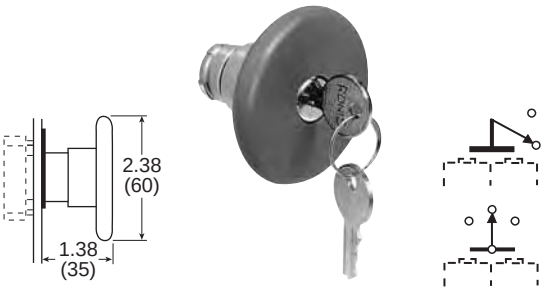


ZB4BG2

Key Operated		
Part Number*	**Key Withdrawal**	**Function**
ZB4BG2	Left	2 Maintained
ZB4BG4	Left and Right	Positions
ZB4BG3	Center	3 Maintained
ZB4BG5	Left and Right	Positions
ZB4BG7	Center	3 Positions 2 Spring Return to Center

* ZB4*** Model Numbers are Metal Head Operators

Mushroom Head Push Buttons with Key Select



ZB4BS24

Part Number*	Color	Function	Description
ZB4BS54	Red	Latching Turn to Release	Ø 40mm Head
ZB4BS14	Red	Key Latching	
ZB4BS64	Red	Latching Turn to Release	Ø 60mm Head
ZB4BS24	Red	Key Latching	

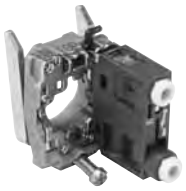
* ZB4**** Model Numbers are Metal Head Operators

Note: Bold Items are Ready (Stock)

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For Use With 22mm (7/8") Metal Operating Heads 5/32" Instant Connections

3/2 Valve Bodies with Mounting Ring



PXBB3111B



PXBB4131B

Part Number	Connections	Function	Type of Switching*
PXBB3111B	5/32" Instant	3/2	NNP
PXBB3121B	5/32" Instant	3/2	NP
PXBB4131B	5/32" Instant	3/2	Universal 3-Way

Note: • Mount up to 3 valves on mounting ring for push buttons.
• Mount up to 2 valves on mounting ring for selector switches, Valves **cannot** be mounted in center position.

Specifications

Air Quality –
Standard Shop Air, Lubricated or Dry ..... 40 µm Filtration

Flow –
PXBB3• ..... Cv=.08
PXBB4• ..... Cv=.18

Materials –
Body ..... Polyamide
Operating Head ..... Zinc Alloy & Plastic

Operating Positions ..... All Positions

Operating Pressure –
PXBB3• ..... 15 to 115 PSIG (1 to 9 bar)
PXBB4• ..... 15 to 145 PSIG (1 to 10 bar)

Ports .....5/32" Instant for Semi-Rigid Nylon or Polyurethane Tube

Temperature –
Operating .....5°F to 140°F (-15°C to + 60°C)

F

Additional Valve Bodies



PXBB3911



PXBB4932



PXBB4931

Part Number	Connections	Function	Type of Switching*
PXBB3911	5/32" Instant Straight	3/2	NNP
PXBB3912	5/32" Instant Swivel		
PXBB3921	5/32" Instant Straigh	3/2	NP
PXBB3922	5/32" Instant Swivel		
PXBB4931	5/32" Instant Straight	3/2	Universal 3-Way
PXBB4932	5/32" Instant Swivel		

Note: Bold Items are Ready (Stock)

Replacement Valve Bodies for PXBB1 and PXBB2 Push Button Valve Series



PXBB1911



PXBB1922

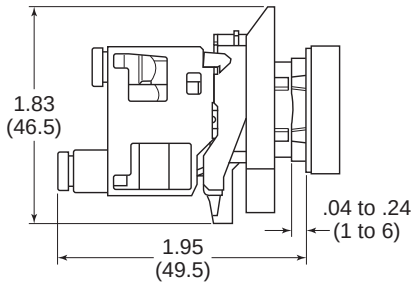


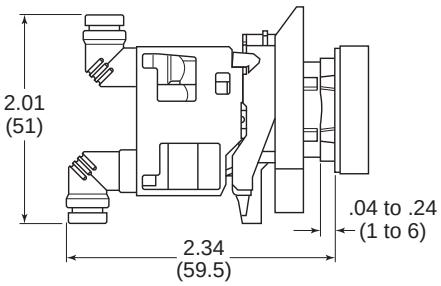
PXBB2911

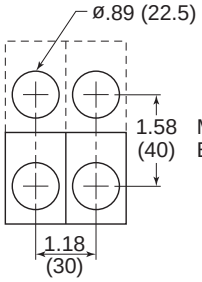
Part Number 1/16" ID Body	Part Number 1/8" ID Body	Connections	Function	Type of
PXBB1911	PXBB2911	5/32" Instant Straight	3/2	NNP
PXBB1912	—	5/32" Instant Swivel		
PXBB1915	PXBB2915	10-32 UNF Threaded		
PXBB1921	PXBB2921	5/32" Instant Straight	3/2	NP
PXBB1922	—	5/32" Instant Swivel		
PXBB1925	PXBB2925	10-32 UNF Threaded		
PXBB1911SE	—	5/32" Instant Straight	2/2	NNP NP
PXBB1921SE	—	5/32" Instant Swivel		

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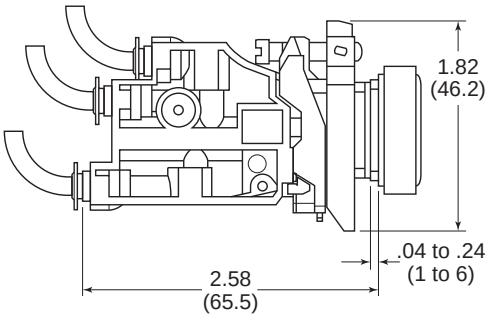
PXB-B3 Dimensions





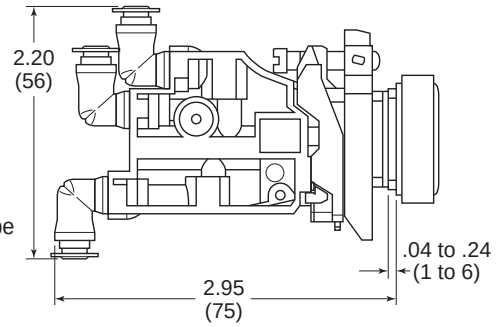


PXB-B4 Dimensions



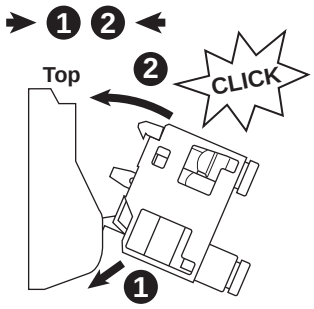
Tube Bending Radius
For PXBB3 and PXBB4

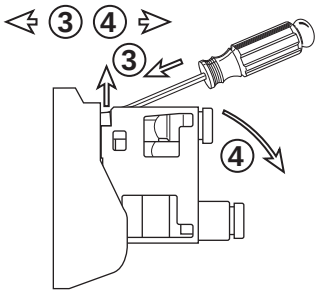
- 4 mm O.D. x 2 mm I.D. Tube = Minimum 0.39 (10) Radius
- 4 mm O.D. x 2.7 mm I.D. Tube = Minimum 0.59 (15) Radius



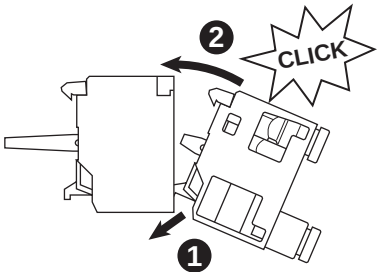
Assembly

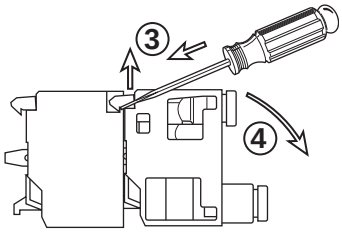
Assembling PXB Valves On Mounting Block





Assembling PXB Valves On the Back of the Electrical Contact





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For Push Buttons and Visual Indicators

Legend Plates for PXBB Devices (22mm)



ZBY••••

Part Number	Description		
Without Text For Customer Engraving			
ZBY2101	Black / Red Background (White Letters)		
ZBY4101	Yellow / White Background (Black Letters)		
With Text For Push Buttons			
ZBY2303	Start		
ZBY2304	Stop		
ZBY2305	Forward		
ZBY2306	Reverse		
ZBY2307	Up		
ZBY2308	Down		
ZBY2309	Right		
ZBY2310	Left		
ZBY2311	On		
ZBY2312	Off		
ZBY2313	Open		
ZBY2314	Close		
ZBY2321	Inch		
ZBY2323	Reset		
ZBY2326	Power On		
ZBY2327	Slow		
ZBY2328	Fast		
ZBY2330	Emergency Stop		
ZBY2334	Run		
With Text For 2-Position Selectors			
ZBY2367	Off		On
With Text For 3-Position Selectors			
ZBY2387	Hand	Off	Auto

Blank Legend Plates for Inscription

For PXBB Devices *(2 lines of 11 characters maximum)*

Please indicate the required text when ordering.
(Allow 3 weeks for delivery)

Part Number	Description
ZBY2002	Black Background / White Letters

For 22mm Visual Indicators Only

2 lines of 11 characters maximum

Please indicate the required text when ordering.
(Allow 3 weeks for delivery)

Part Number	Description
ZB2BY2002	Black Background / White Letters

Accessories



ZBE101

Electrical Switch Bodies

When combined with pneumatic valves ,these contact blocks allow different forms of power to be provided from a single push button. Can be mounted with both types of valves PXBB3 / PXBB4.

Electrical Specification: 240V, 10Amp

Part Number	Type of Contact
ZBE101	Normally Open (NO)
ZBE102	Normally Closed (NC)

Note: Plastic Mounting Ring ZB5AZ009 to be used with ZB5 Plastic Operating Heads.

Metal Mounting Ring ZB4BZ009 to be used with ZB4 Metal Operating Heads.



Metal: ZB4BZ009



Plastic: ZB5AZ009

Mounting Ring for Valve Bodies, Switch Bodies and Operating Heads

To make up a complete push button with one to three switching elements with 5/32" instant connections, use this mounting block and select the operating heads and bodies in this Section.

Part Number	Description
ZB4BZ009	Metal Mounting Ring
ZB5AZ009	Plastic Mounting Ring

To make up a complete selector switch with one or two switching elements with 5/32" instant connections, use this mounting block and select the operating heads and bodies in this Section.

Part Number	Description
ZB4BZ009	Metal Mounting Ring
ZB5AZ009	Plastic Mounting Ring

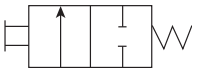
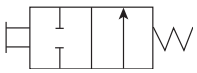
Note: To release push button from mounting ring, pull lever on top of mounting ring up and remove push button operator. To assemble push button operator to mounting ring, align arrows and snap into place.

Note: Bold Items are Ready (Stock)

F

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Functionality Explanation

Fluid Power			Universal Description	Electrical	
Function	**Symbol**			**Function**	**Symbol**
Normally Closed (N.C.)	**2-Way** 	**3-Way** 	**Normally Non-Passing (NNP)**	**Normally Open (N.O.)**	
Normally Open (N.O.)	**2-Way** 	**3-Way** 	**Normally Passing (NP)**	**Normally Closed (N.C.)**	

Type of Switching: Universal 3-Way: Valve can be connected either as NP or NNP as required by connecting the primary air supply to port 1 or port 3.

NP NNP 
3 2 1 2

NNP: Normally Non-Passing. 

NP: Normally Passing.

NNP + NNP: Double Switch Body, Both Normally Non-Passing. 

NNP + NP: Normally Non passing and Normally-Passing. 

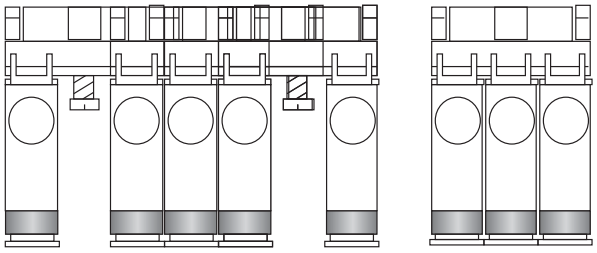
NP + NP: Both Normally Passing. 

F

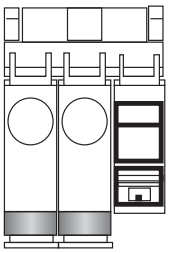
Combination of Output Devices On a Single Mounting Block

Up to 3 output devices (valves or electrical contacts) can be mounted side by side on 1 mounting block.

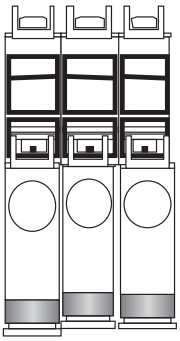
Note: The central position can only be activated by push button heads.



Electrical Contacts and Valves can be Combined Either Side by Side, or by Mounting the Valve on the Back of the Electrical Contact.

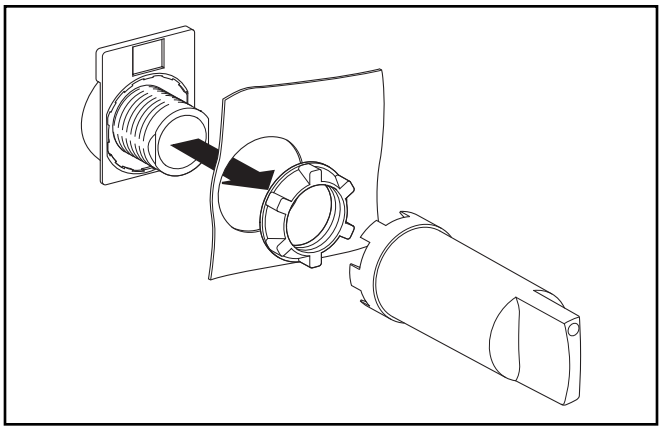


Side by Side Combination

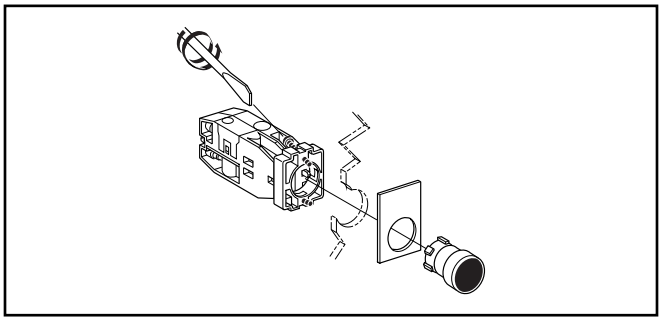


Combination by Mounting Valves On the Back of the Electrical Contact

Assembling Output Devices and Heads On ZB5 Series Mounting Block



Mounting



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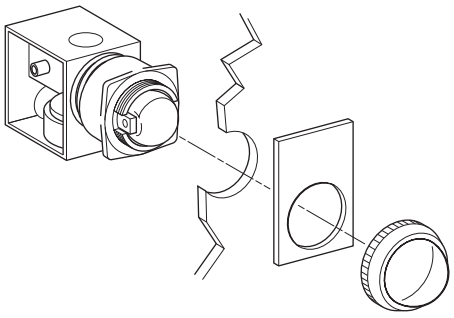
With 5/32" Instant Connections

22mm Visual Indicators





PXVF131



Mounting

Black Plastic Bezel		
Part Number "ON" Indicator	**Part Number "OFF" Indicator**	**Color**
PXVF131	**PXVF1213**	Green
PXVF141	**PXVF1214**	Red
PXVF151	**PXVF1215**	Yellow
PXVF161	**PXVF1216**	Blue
PXVF111	**PXVF1211**	White

Notes:

- The Pneumatic Indicators are black in one position and colored in the other. The colored position corresponds either to the presence of a pressure ("ON" Indicator) or the absence of pressure ("OFF" Indicator).
- For Legend Plates, see page F9.

Specifications

Air Quality –
Standard Shop Air, Lubricated or Dry, 40µm Filtration

Materials –
Body..... Polyamide
Operating Head..... Zinc Alloy & Plastic

Number of Operations with Dry Air at 90 PSI (6 bar) and 68°F (20°C) - Frequency 1 Hz.....1 million Operations
Mushroom Head .....300,000 Operations

Operating Positions..... All Positions

Operating Pressure ..... 15 to 115 PSIG (1 to 8 bar)

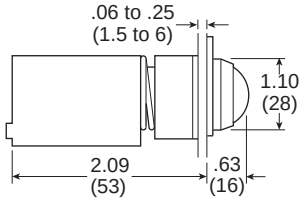
Ports –
Standard .....5/32" Instant for Semi- Rigid Nylon or Polyurethane Tube
10-32 UNF Available

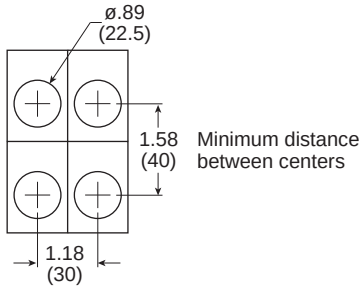
Temperature –
Operating .....32°F to 122°F (0°C to + 50°C)
Storage ..... -22°F to 140°F (-30°C to +60°C)

F

Dimensions

PXVF1• •

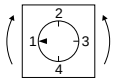


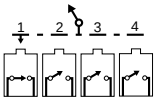


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With 5/32" Instant Connections, 1/16" I.D. Internal Orifice

4-Positions, 4-Outputs 3/2



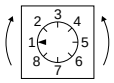


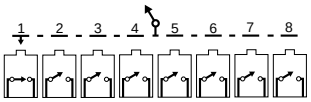


PXBDD104

Without Mechanical Stop		
Part Number	**Operating Head**	**Type of Switching***
PXBDD104	Black Handle with 2.5" x 2.5" (64 x 64 mm) Legend Plate, Red or Black Background	NNP

8-Positions, 8-Outputs 3/2







PXBDD508

Without Mechanical Stop		
Part Number	**Operating Head**	**Type of Switching***
PXBDD508	Black Handle with 2.5" x 2.5" (64 x 64 mm) Legend Plate, Red or Black Background	NNP

Specifications

Air Quality –
Standard Shop Air, Lubricated or Dry, 40µm Filtration

Materials –
Body..... Polyamide
Operating Head..... Zinc Alloy & Plastic

Minimum Operating Force ..... 9.4 Lb (42 N)

Number of Operations with Dry Air at 90 PSI (6 bar) and 68°F (20°C) - Frequency 1 Hz..... 1 million Operations
Mushroom Head ..... 300,000 Operations

Operating Positions..... All Positions

Operating Pressure ..... 15 to 115 PSIG (1 to 8 bar)

Ports –
Standard: 5/32" Instant for Semi- Rigid Nylon or Polyurethane Tube

10-32 UNF Available.

Temperature –
Operating .....32°F to 122°F (0°C to + 50°C)
Storage ..... -22°F to 140°F (-30°C to +60°C)

Notes:

These Rotary Switches operate in either direction. They come assembled with switch PXBB1921 (Normally Passing). All switches are held in the actuated non-passing position except the one associated with a given dial position, which is in the unactuated Normally Passing position.

Example of Operation: Rotation from Position 1 to Position 2:

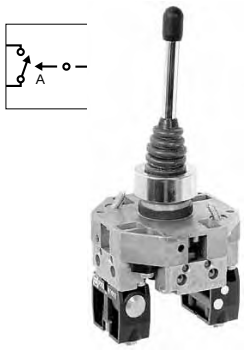
- Switch 1 changes from unactuated Normally Passing to actuated non-passing.
- Switch 2 changes from actuated non-passing to unactuated Normally Passing.

Units will accept all switch bodies shown earlier in this Section, but care must be taken in selecting switch type.

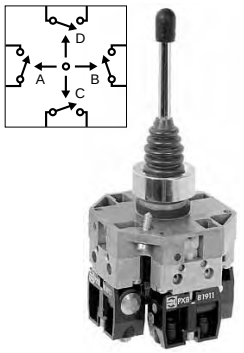
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With 5/32" Instant Connections, 1/16" I.D. Internal Orifice

2-Position Unit 4-Position Unit



PXBGA8211



PXBGA8411

Note: These Joystick Operators come assembled with switch type PXBB1911, but will accept all Switch Bodies shown later in this Section.

Part Number	Position	Function	Type of Switching*	Operating Head
PXBGA8211	2	Maintained Position in Each Direction	NNP	Chrome Plated Lever with Protective Bellows 1.6" x 2.5"
PXBGA8411	4			
PXBGA8221	2	Spring Return in Each Direction	NNP	(40 x 64 mm) Legend Plate Red or Black Background
PXBGA8421	4			

* NNP: Normally Non-Passing.

Specifications

Air Quality –
Standard Shop Air, Lubricated or Dry, 40µm Filtration

Flow at 90 PSI (6 bar) in SCFM (l/mn ANR) 1.8 (50)

Materials –
Body..... Polyamide
Operating Head..... Zinc Alloy & Plastic

Nominal Bore Ø in Inches (mm)..... 1/16" (1.5)

Number of Operations with Dry Air at 90 PSI (6 bar) and 68°F (20°C) - Frequency 1 Hz..... 1 million Operations

Operating Angle..... 18°

Operating Positions..... All Positions

Operating Pressure ..... 15 to 115 PSIG (1 to 8 bar)

Operating Torque ..... 59.5 oz-in (420 mNm)

Ports –
Standard: 5/32" Instant for Semi- Rigid Nylon or Polyurethane Tube

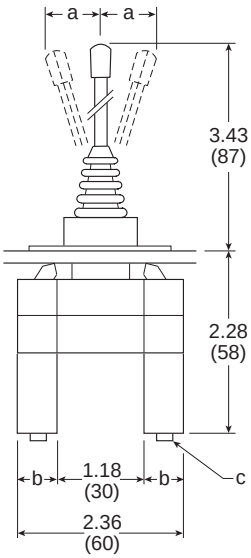
10-32 UNF Available.

Temperature –
Operating ..... 32°F to 122°F (0°C to + 50°C)
Storage ..... -22°F to 140°F (-30°C to +60°C)

F

Dimensions

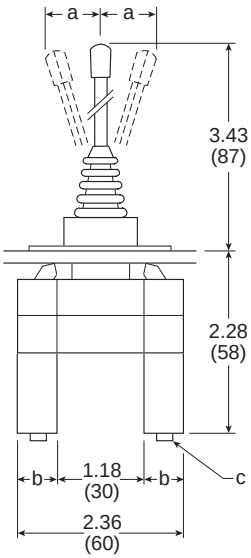
PXBGA82••



	inch	mm
a*	1.57	40
b	.59	15
c	5/32 Dia.	4 Dia.

* In both directions

PXBGA84••



	inch	mm
a*	1.57	40
b	.59	15
c	5/32 Dia.	4 Dia.

* In all 4 directions

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Standard Duty 1/6" I.D. Valves with 5/32" Instant Connections

Protective Guard



PXPEM510

Part Number	Function	Material	Type of Switching*
PXPEM510	High resistance protective guard, with interlock mechanism to prevent accidental operation by a falling object.	Metal	NNP

Foot Switches Without Protective Guard



PXPEA110

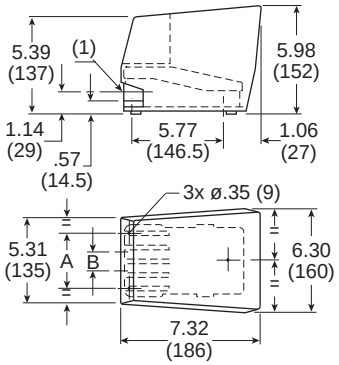
Part Number	Function	Material	Type of Switching*
PXPEA110	Spring Return	Plastic	NNP
PXPEM110	Spring Return	Metal	NNP

⚠ **CAUTION:**
This valve shall not be used to actuate a punch press. Do not use this valve on punch presses or press brakes. See OSHA 1910.217.

F

Dimensions

PXPEM510



(1) 2 mounting ports for adaptors for conduit ttings

(2) 7° operating angle

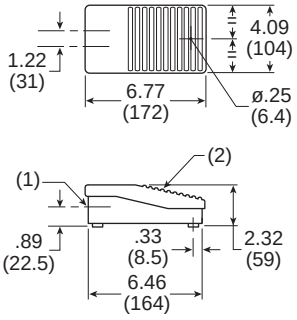
	inch	mm
a	3.53	940
b	1.22	31

Notes: These Foot Pedal Operators come assembled with switch PXBB1921 (Normally Passing). With the pedal in the unoperated position, the switch is in the actuated non-passing position. With the pedal actuated, the switch is in the unactuated Normally Passing position.

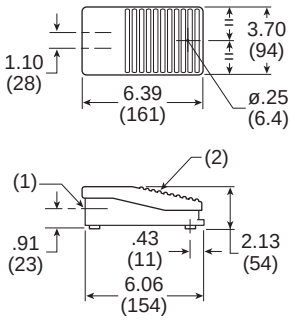
Units will accept all switch bodies shown earlier in this Section, but care must be taken in selecting switch type.

Dimensions

PXPEM110



PXPEA110



(1) .825" diameter thru hole

(2) 6° operating angle

Specifications

Air Quality –
Standard Shop Air, Lubricated or Dry, 40µm Filtration

Flow at 90 PSI (6 bar) in SCFM (l/mn ANR) 1.8 (50)

Materials –
Body..... Polyamide
Operating Head..... Zinc Alloy & Plastic

Nominal Bore Ø in Inches (mm)..... 1/16" (1.5)

Number of Operations with Dry Air at 90 PSI (6 bar) and 68°F (20°C) - Frequency 1 Hz..... 1 million Operations

Operating Positions..... All Positions

Operating Pressure ..... 15 to 115 PSIG (1 to 8 bar)

Ports –
5/32" Instant for Semi-Rigid Nylon or Polyurethane Tube

Temperature –
Operating ..... 32°F to 122°F (0°C to + 50°C)
Storage ..... -22°F to 140°F (-30°C to + 60°C)

* NNP: Normally Non-Passing.

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Features

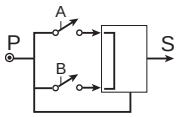
- The pre-assembled two-hand control enclosure occupies both hands of an operator by requiring nearly simultaneous operation of two pushbuttons
- Poppet – snap-acting (no spools)
- Same air as in cylinders – Filtration: 40 micron
- No lubrication required



PXPC111

Part Number	Connections
PXPC111	5/32" Instant

Operation



- Output “S” will appear only if “A” and “B” are simultaneously operated (within .5 seconds or less of each other).
- If the operator actuates only one pushbutton, either “A” or “B”, or if both “A” and “B” are actuated but at an interval greater than .5 seconds, output “S” will not appear.
- Output “S” is regenerated by supply “P”. Output “S” will therefore disappear if supply “P” is cut off.
- Output “S” will disappear if either “A” or “B” is released.
- If output “S” disappears for any reason, “A” and “B” must be nearly simultaneously actuated to again provide output “S”.
- Since output “S” is regenerated it appears sharply, at full force (snap-acting), and is quickly exhausted upon deactivation. In addition the module is not affected by the length or diameter of tubing used for output “S”.

General Characteristics

Operating Pressure .....40 to 120 PSI (3 to 8 bar)

Permissible Fluids –
Air or neutral gas 40 micron ltration, lubricated or dry

Flow at 90 PSI (6 bar) ..... 7 SCFM (200 l/mn ANR)

Operating Temperature .....-5°F to 140°F (-15°C to 60°C)
Below 40°F (5°C), an air dryer is required

Storage Temperature.....-40°F to 160°F (-40°C to 70°C)

Number of operations with dry air at 90 PSI (6 bar), 68°F (20°C), frequency 1 Hz ..... 1 Million Operations

Vibration resistance –
Conforms to section 19-2 of bureau Véritas regulations (November 1987)

Materials –
Body.....Glass Filled Nylon
Operating Head ..... Zinc Alloy and Plastic

Connections:..... 5/32" instant

Mounting

Approvals:

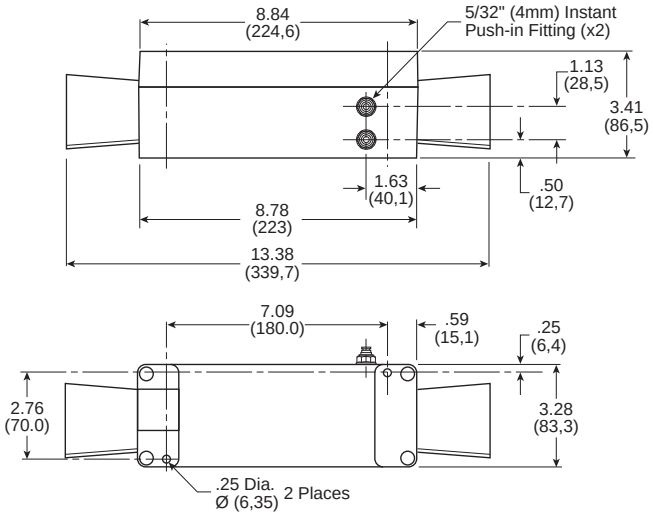
- In accordance with European Standard EN 574 - September 1996
- Conforms to the model that has obtained CE Type Test Certi cate No. 02526 520 4631 0397

⚠WARNING

These devices should NOT be used in any application involving rotary clutch presses. Two hand control modules do not of themselves insure the safety of any machine. Users and original equipment manufacturers are responsible for making sure that installations meet all relevant safety regulations.

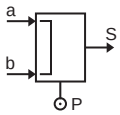
Dimensions

Inches (mm)



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Two-Hand Control Module

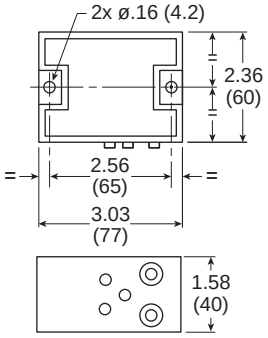




PXPA11

Part Number	Connections
PXPA11	5/32" Instant

Dimensions



PXPA11

Specifications

Air Quality –
Standard Shop Air, Lubricated or Dry, 40µm Filtration
Flow at 90 PSI (6 bar) in SCFM (l/mn ANR) 7 (200)
Materials –
Body..... Polyamide
Operating Head..... Zinc Alloy & Plastic
Nominal Bore Ø in Inches (mm)..... 7/64" (2.5)
Number of Operations with Dry Air at 90 PSI (6 bar) and 68°F (20°C) - Frequency 1 Hz ..... 1 million Operations
Operating Positions..... All Positions
Operating Pressure ..... 40 to 115 PSIG (3 to 8 bar)
Ports –
5/32" Instant for Semi-Rigid Nylon or Polyurethane Tube
Temperature –
Operating ..... 32°F to 122°F (0°C to + 50°C)
Storage ..... -22°F to 140°F (-30°C to + 60°C)
Vibration resistance:
Conforms to section 19-2 of bureau Véritas regulations (November 1987)

⚠ WARNING

These devices should NOT be used in any application involving rotary clutch presses. Two hand control modules do not of themselves insure the safety of any machine. Users and original equipment manufacturers are responsible for making sure that installations meet all relevant safety regulations.

Notes: These two-hand control modules provide an output signal upon nearly concurrent operation of two pushbuttons.

Two-Hand Control Module Guard



PPRL15

Part Number	Base Component
PPRL15	PXPC111

Two Hand Repair Parts

Part Number	Quantity Required	Description
PXPA11	1	Control Module
PXBB3111B	2	Valve Body & Mounting Ring
ZB4BR*	2	Push Button
PPRL15	2	Control Module Guard

* 2 = Black, 3 = Green, 4 = Red

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Sensing

Pneumatic Control Components

Section G

www.parker.com/pneu/limsen



Basic Features – Pneumatic Sensors G2

Limit Switches

- 3/2 Miniature Limit Switches G3-G4
- 3/2 Compact Limit Switches.....G5-G6
- “K” Series – Standard Duty Limit Switches....G7-G10
- “J” Series – Heavy Duty Limit Switches.....G11-G13

PWBA Blocking Valves G14-G15

Threshold Sensors G16-G18

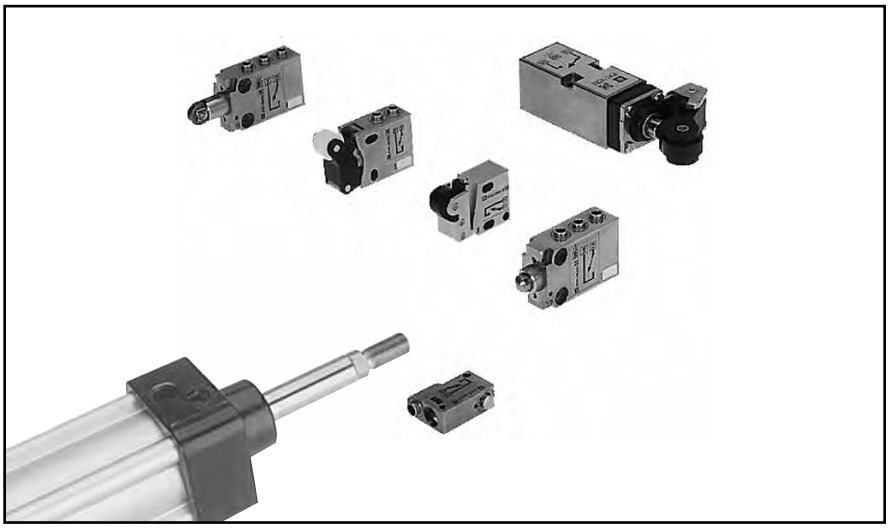
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To achieve the sensing or feedback function, pneumatic sensors can be:

- Limit Switches in a Variety of Sizes and Con gurations
- Pressure Switches with Many Adjustable Ranges
- Components Designed Speci cally for Pneumatic Technology using Pressure Variation, Air Bleed or Blocking for Detection.

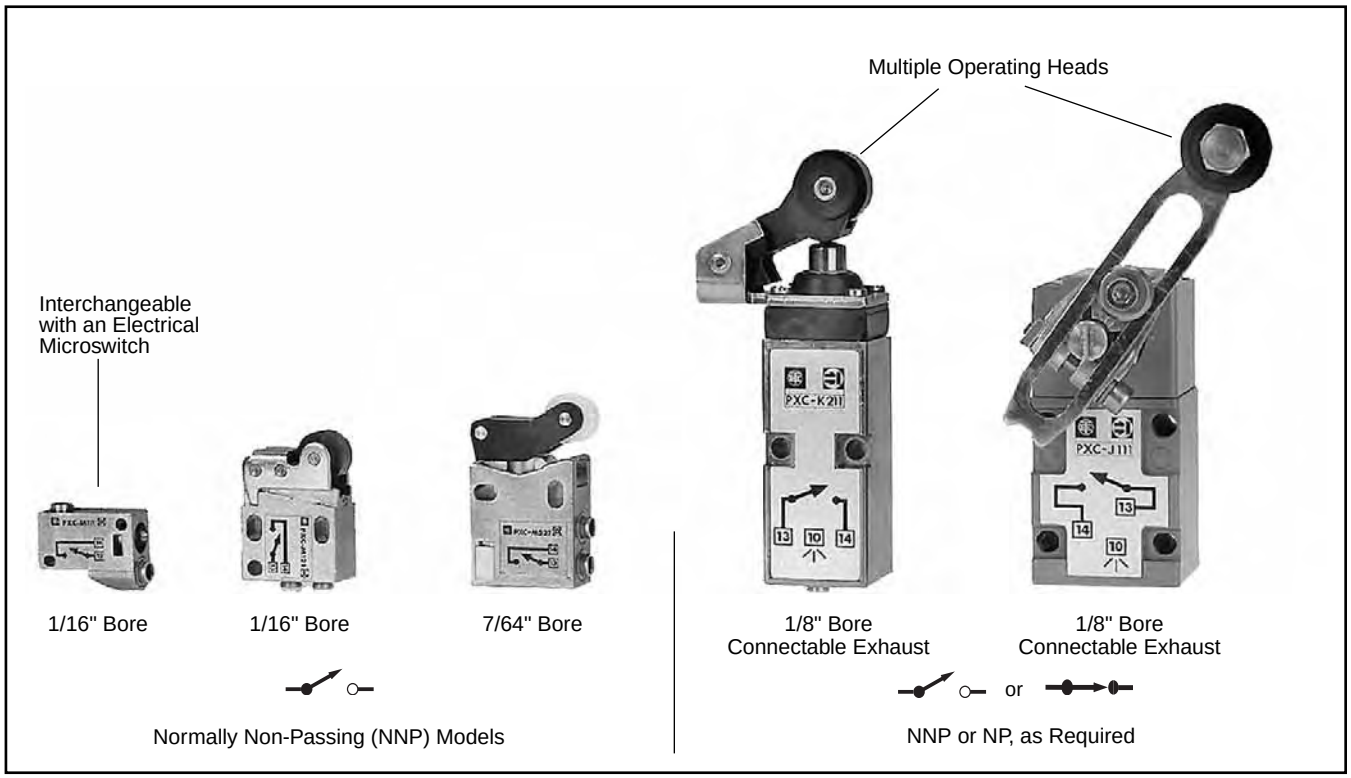
A wide variety of pneumatic sensors are available to suit any application requirement.



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Pneumatic Limit Switches

Pneumatic limit switches are non-passing (NNP) or passing (NP) when actuated by a moving part. The various operating levers, bore dimensions and functions are given below.



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Direct Acting Limit Switches

1/16" I.D. Internal Orifice



PXCM111



PXCM121

Part Number	Connection	Actuator	Type of Switching*
PXCM111	5/32" Instant	Steel Plunger Operating Levers Available (See Below)	NNP
PXCM115	10-32 UNF		
PXCM121	5/32" Instant	Plastic Roller	NNP
PXCM125	10-32 UNF		

7/64" I.D. Internal Orifice



PXCM521

Part Number	Connection	Actuator	Type of Switching*
PXCM521	5/32" Instant	Plastic Roller	NNP

Actuators For Steel Plunger



PXCZ11

Use with PXCM11*

Part Number	Actuator
PXCZ11	Plastic Roller
PXCZ12	Plastic Roller, One Way Trip

*NNP: Normally Non-Passing.

Specifications

Air Quality –
Standard Shop Air, Lubricated or Dry, 40µm Filtration

Flow SCFM (Nl/min) –
PXCM111 ..... 2.2 (60)
PXCM121 ..... 3.0 (85)
PXCM521 ..... 8.8 (250)

Materials –
Body ..... Zinc Alloy
Poppets ..... Polyurethane
Seals ..... Nitrile (Buna N)

Maximum Operating Frequency ..... 5 Hz

Nominal Bore Ø –
PXCM111, PXCM121 ..... 1/16" (1.5 mm)
PXCM521 ..... 7/64" (2.5 mm)

Number of Operations with Dry Air at 90 PSI (6 bar) and 68°F (20°C) – Frequency 1 Hz ..... 10 Million

Operating Positions ..... All Positions

Operating Pressure ..... 40 to 115 PSIG (3 to 8 bar)

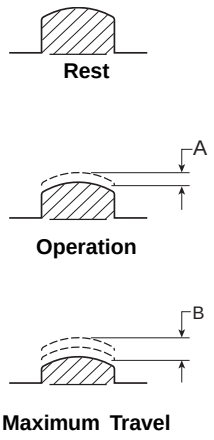
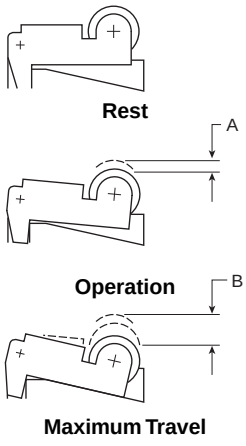
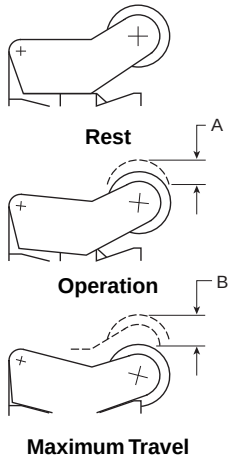
Ports –
5/32" Instant for Semi-Rigid Nylon or Polyurethane Tube
10-32 UNF Available

Temperature –
Operating ..... 32°F to 122°F (0°C to + 50°C)
Storage ..... -22°F to 140°F (-30°C to + 60°C)

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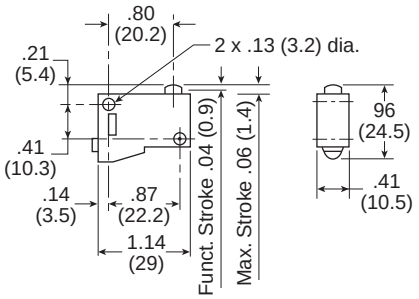
Operator Specifications

	PXCM111	PXCM121	PXCM521
Differential Travel at 90 PSI (6 bar)	.006" (0.15 mm)	.012" (0.3 mm)	.020" (0.5 mm)
Maximum Travel (B) at 90 PSIG (6 bar)	.055" (1.4 mm)	.126" (3.2 mm)	.228" (5.8 mm)
Minimum Pre-Travel (A) at 90 PSIG (6 bar)	.035" (0.9 mm)	.079" (2 mm)	.087" (2.2 mm)
Minimum Operating Force at 90 PSI (6 bar)	2.5 lb (11 N)	1.0 lb (4.5 N)	1.6 lb (7 N)
Operating Diagram			

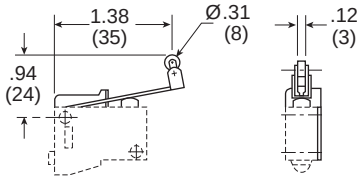
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Dimensions

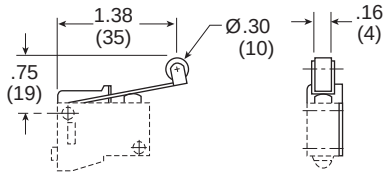
PXCM111



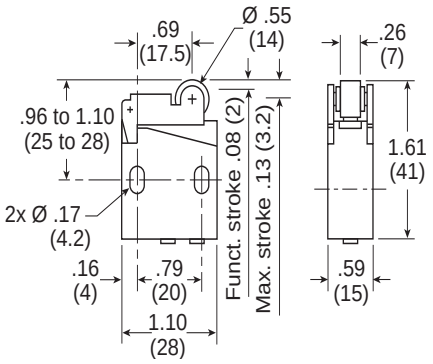
PXCZ12



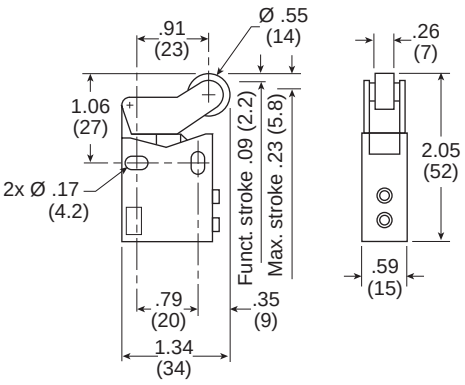
PXCZ11



PXCM121, PXCM131



PXCM521



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Pilot Operated Compact Limit Switches

5/32" Instant Connections
Pipeable Exhaust Port
7/64" I.D. Internal Orifice



PXCM601A110



PXCM601A102



PXCM601A103

Part Number	Actuator	Type of Switching*
PXCM601A110	Steel Plunger	NNP
PXCM601A102	Steel Roller Plunger	
PXCM601A103	90° Steel Roller Plunger	

Specifications

Air Quality –
Standard Shop Air, Lubricated or Dry, 40µm Filtration

Flow SCFM (Nl/min) 8.8 (250)

Materials –
Body ..... Zinc Alloy
Poppets ..... Polyurethane
Seals ..... Nitrile (Buna N)

Maximal Operating Frequency ..... 5 Hz

Nominal Bore Ø ..... 7/64" (2.5 mm)

Number of Operations with Dry Air at 90 PSI (6 bar) and 68°F (20°C) – Frequency 1 Hz ..... 10 Million

Operating Positions ..... All Positions

Operating Pressure ..... 40 to 115 PSIG (3 to 8 bar)

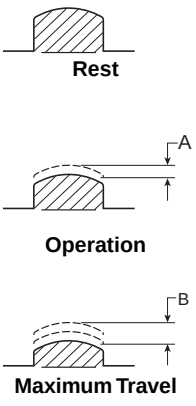
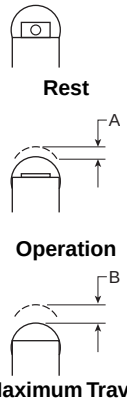
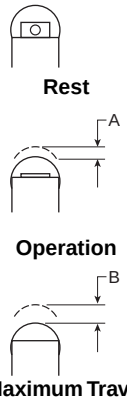
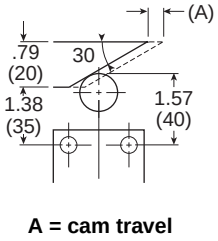
Ports –
5/32" Instant for Semi-Rigid Nylon or Polyurethane Tube

Temperature –
Operating ..... 32°F to 122°F (0°C to + 50°C)
Storage ..... -22°F to 140°F (-30°C to + 60°C)

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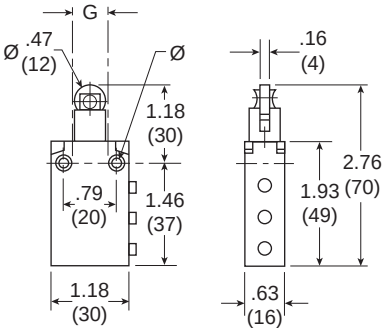
Operator Specifications

	PXCM601A110	PXCM601A102	PXCM601A103	PXCM601A110 + XCMZ24
Differential Travel at 90 PSI (6 bar)	.012" (0.3 mm)	.008" (0.2 mm)	.020" (0.5 mm)	.047" (1.2 mm) (A)
Maximum Travel (B) at 90 PSIG (6 bar)	.197" (5 mm)	.197" (5 mm)	.197" (5 mm)	—
Minimum Pre-Travel (A) at 90 PSIG (6 bar)	.066" (1.7 mm)	.066" (1.7 mm)	.066" (1.7 mm)	.370" (9.4 mm) (A)
Minimum Operating Force at 90 PSI (6 bar)	5.4 lbf (24 N)	5.2 lbf (23 N)	5.2 lbf (23)	4.3 lbf (19)
Operating Diagram				

G

Dimensions

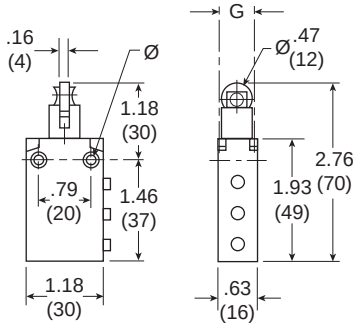
PXCM601A102



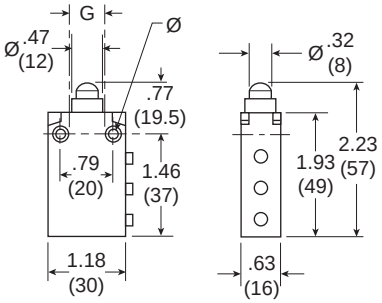
Ø:
2 mounting holes Ø .17" (4.3)
2 countersunk Ø .32" (8.2)
depth 4 mm

G:
top mounting holes, 2 x M5
.71" (18 mm) centers

PXCM601A103



PXCM601A110



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Limit Switches

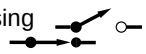
Plunger Operated

5/32" Instant Connections
Pipeable Exhaust Port
1/8" I.D. Internal Orifice



PXCK21101 **PXCK21102** **PXCK21121** **PXCK21106**

Complete Assemblies		
Part Number	**Actuator**	**Type of Switching***
PXCK21101	Steel Plunger	NNP
PXCK22101		NP
PXCK21102	Steel Roller Plunger	NNP
PXCK22102		NP
PXCK21121	Plastic Roller Plunger	NNP
PXCK22121		NP
PXCK21106	Cats Whisker	NNP
PXCK22106		NP

NNP: Normally Non-Passing 

NP: Normally Passing

Roller Operated

5/32" Instant Connections
Pipeable Exhaust Port
1/8" I.D. Internal Orifice

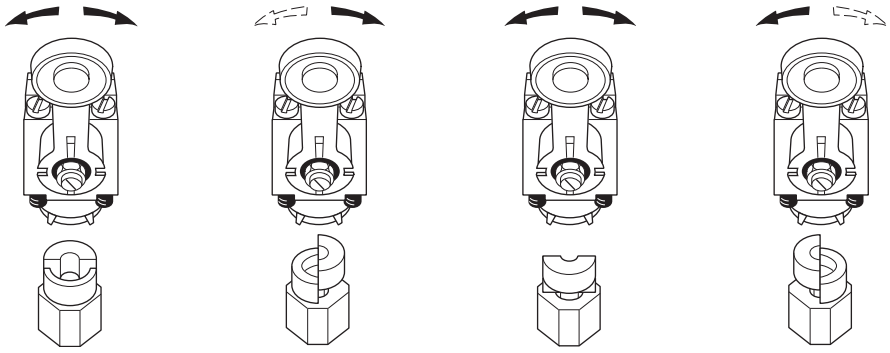


PXCK2110031 **PXCK2110041**

With Die Cast Rotary Operating Head and Operating Lever - Complete Assemblies		
Part Number	**Actuator**	**Type of Switching***
PXCK2110031	Fixed Delrin Roller Lever Multi-Function Head Actuates: - From Right and Left - From Right - From Left	NNP
PXCK2210031		NP
PXCK2110041	Adjustable Delrin Roller Lever Multi-Function Head Actuates: - From Right and Left - From Right - From Left	NNP
PXCK2210041		NP

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Field Conversion of Rotary Operating Head



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Separate Pneumatic Switch Bodies



PXCK211

Part Number	Actuator	Type of Switching*
PXCK211	For Use with ZCK Series Operating Heads	NNP
PXCK221		NP

Pneumatic Switch Bodies with Rotary Heads



PXCK21100

Part Number	Actuator	Type of Switching*
PXCK21100	Multi-Function Head Actuates: - From Right and Left - From Right - From Left	NNP
PXCK22100		NP

Operating Heads
For Use With PXCK Switch Bodies



ZCKG00

Part Number	Actuator	Description
Rotary Operated		
ZCKG00	—	Die Cast Zinc
Plunger Operated		
ZCKD02	Roller Plunger	Plunger Operated
ZCKD06	Whisker	
ZCKD10	Rod Plunger	
ZCKD21	Delrin Roller Lever On Plunger	
ZCKD23	Steel Roller Lever On Plunger	

Operating Levers for Rotary Heads



ZCKY81



ZCKY91

For Use With Rotary Head ZCKG00		
Part Number	**Actuator**	**Description**
ZCKY51	Steel 1/8" Square	Rod Levers
ZCKY52	Fiberglas 1/8" Dia. Round	
ZCKY81	Plastic Spring Rod Lever	
ZCKY91	Metal Spring Rod Lever	
ZCKY11	Delrin Roller Lever	Roller Levers
ZCKY13	Steel Roller Lever	
ZCKY41	Adjust. Delrin Roller Lever	
ZCKY43	Adjust. Steel Roller Lever	

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Specifications

Air Quality –
Standard Shop Air, Lubricated or Dry, 40µm Filtration

Flow SCFM (Nl/min) 7.4 (210)

Materials –
Body ..... Zinc Alloy
Poppets ..... Polyurethane
Seals ..... Nitrile (Buna N)

Maximal Operating Frequency ..... 5 Hz

Nominal Bore Ø ..... 1/8" (3 mm)

Number of Operations with Dry Air at 90 PSI (6 bar) and 68°F (20°C) – Frequency 1 Hz ..... 10 Million

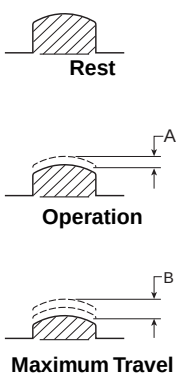
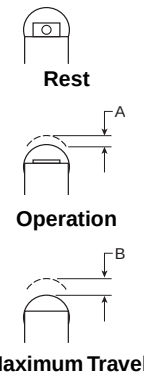
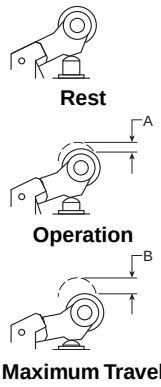
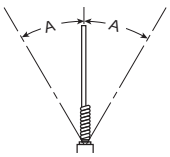
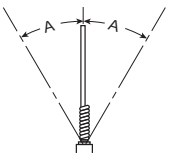
Operating Positions ..... All Positions

Operating Pressure ..... 40 to 115 PSIG (3 to 8 bar)

Ports –
5/32" Instant for Semi-Rigid Nylon or Polyurethane Tube

Temperature
Operating ..... 32°F to 122°F (0°C to + 50°C)
Storage ..... -22°F to 140°F (-30°C to +60°C)

Operator Specifications

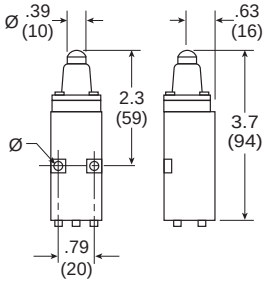
	PXCK2••01	PXCK2••02	PXCK2••03	PXCK2••06	PXCK2••00 + Actuator
Differential Angle	—	—	—	12°	3°
Differential Travel	.008" (0.2 mm)	.008" (0.2 mm)	.008" (0.2 mm)		
Maximum Angle of Travel	—	—	—	—	80°
Maximum Travel (B) at 90 PSIG (6 bar)	.020" (0.5 mm)	.020" (0.5 mm)	.020" (0.5 mm)	—	—
Minimum Pre-Travel (A) at 90 PSIG (6 bar)	.087" (2.2 mm)	.087" (2.2 mm)	.102" (2.6 mm)	—	—
Minimum Operating Force at 90 PSI (6 bar)	3.6 lbf (16N)	4.5 lbf (20N)	3.4 lbf (15N)	—	—
Minimum Operating Torque at 90 PSI (6 bar)	—	—	—	17.0 oz in (120mNm	29.8 oz in (210mNm)
Operating Angle	—	—	—	35°	31° (Minimum Lever Travel Including Pre-Travel Required For Operation)
Operating Diagram					

G

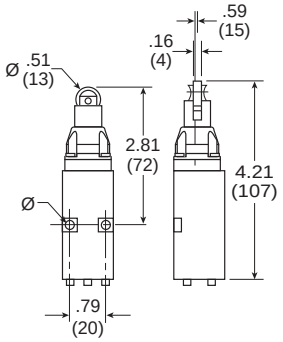
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Richland, Michigan
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Dimensions

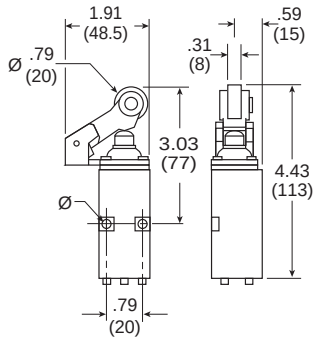
PXCK21101, PXCK22101



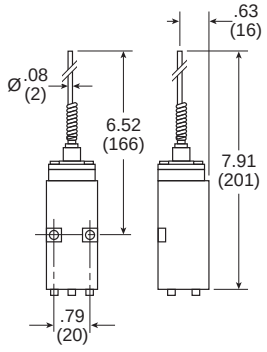
PXCK21102, PXCK22102



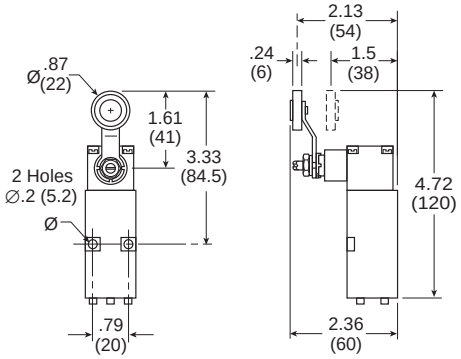
PXCK21121, PXCK22121



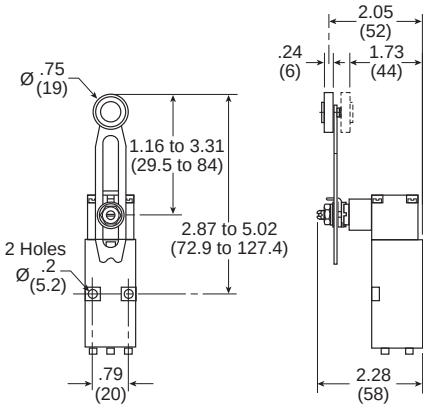
PXCK21106, PXCK22106



PXCK2110531, PXCK2210531



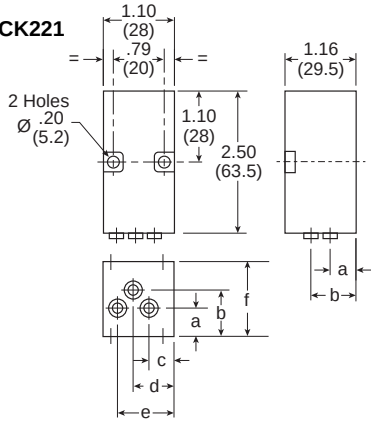
PXCK2110541, PXCK2210541



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Pneumatic Switch Bodies

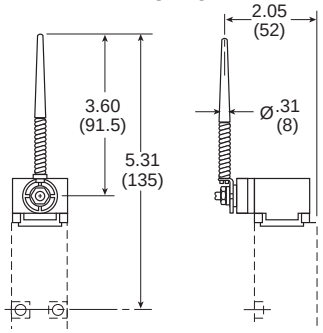
PXCK211, PXCK221



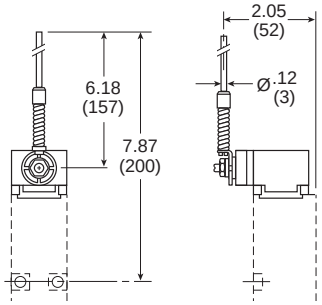
	inch	mm
a	.39	10
b	.77	19.5
c	.35	9
d	.61	15.5
e	.87	22
r	1.66	29.5

Rotary Heads with Operating Levers

ZCKY81



ZCKY91



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Switch Bodies Only



PXCJ117

Part Number	Type of Switching*
PXCJ117	NNP
PXCJ127	NP

Switch Bodies with Rotary Head



PXCJ11701

Part Number	Direction of Actuation	Type of Switching*
PXCJ11701	Right & Left, Spring Return	NNP
PXCJ11705	Right or Left, Spring Return	
PXCJ12701	Right & Left, Spring Return	NP
PXCJ12705	Right or Left, Spring Return	

Operating Levers for Rotary Heads



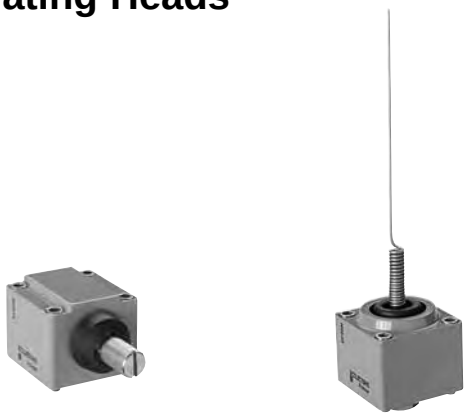
ZC2JY11 **ZC2JY31** **ZC2JY81** **ZC2JY91**

Die Cast Zinc. For Use With PXCJ Switch Bodies		
Part Number	**Operator**	**Description**
ZC2JY11	Delrin Roller	Spring Return
ZC2JY13	Steel Roller	
ZC2JY21	Offset Delrin Roller	
ZC2JY81	Plastic Spring Rod	
ZC2JY91	Metal Spring Rod	
ZC2JY31	Delrin Roller	Adjustable Roller
ZC2JY41	Offset Delrin Roller	
ZC2JY51		Rod Lever
ZC2JY71	Single Track, Delrin Roller	Fork Lever
ZC2JY61	Double Track, Delrin Rollers	

NNP: Normally Non-Passing

NP: Normally Passing

Top Plunger & Rotary Operating Heads



ZC2JE70 **ZC2JE01**

Die Cast Zinc. For Use With PXCJ Switch Bodies		
Top Plunger Type		
Part Number	**Operation**	**Description**
ZC2JE61	Top Push	Spring Return
ZC2JE62	Top Roller Push	
ZC2JE63	Side Push	
ZC2JE70	Cat's Whisker	
Rotary Type		
ZC2JE01	From Left & Right	Spring Return
ZC2JE02	Counterclockwise From Right	
ZC2JE03	Clockwise From Left	
ZC2JE05	From Left or Right	
ZC2JE09	Maintained Positions	

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Specifications

Air Quality –
Standard Shop Air, Lubricated or Dry, 40µm Filtration

Flow SCFM (Nl/min) 7.4 (210)

Materials –
Body ..... Zinc Alloy
Poppets ..... Polyurethane
Seals ..... Nitrile (Buna N)

Maximal Operating Frequency ..... 5 Hz

Nominal Bore Ø ..... 1/8" (3 mm)

Number of Operations with Dry Air at 90 PSI (6 bar) and 68°F (20°C) – Frequency 1 Hz ..... 10 Million

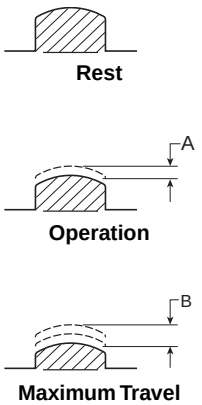
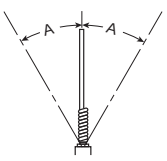
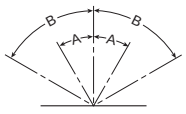
Operating Positions ..... All Positions

Operating Pressure ..... 40 to 115 PSIG (3 to 8 bar)

Ports ..... 1/8" NPT

Temperature –
Operating ..... 32°F to 122°F (0°C to + 50°C)
Storage ..... -22°F to 140°F (-30°C to +60°C)

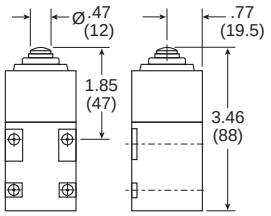
Operator Specifications

	ZC2JE61	ZC2JE62	ZC2JE70	ZC2JE01	ZC2JE05
Differential Angle	—	5°	5°	2°	2°
Differential Travel at 90 PSI (6 bar)	.008" (0.2 mm)	—	—	—	—
Maximum Angle of Travel	—	—	—	75°	75°
Maximum Travel (B) at 90 PSIG (6 bar)	228" (5.8 mm)	—	—	—	—
Minimum Pre-Travel (A) at 90 PSIG (6 bar)	.059" (1.5 mm)	—	—	—	—
Minimum Operating Force at 90 PSI (6 bar)	3.6 lbf (16N)	—	—	—	—
Minimum Operating Torque at 90 PSI (6 bar)	7.1 oz in (50Nm)	35.4 oz in (250Nm)	35.4 oz in (250Nm)	35.4 oz in (250Nm)	—
Operating Angle (Minimum Lever Travel Including Pre-Travel Required For Operation)	—	23°	23°	12°	12°
Operating Diagram					

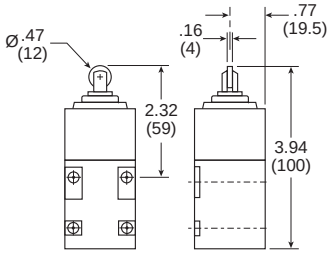
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Switch Body With Plunger Heads

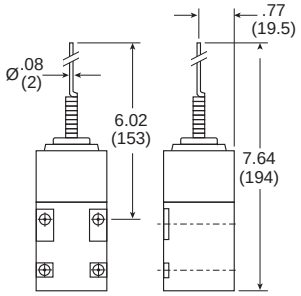
With ZC2JE61



With ZC2JE62

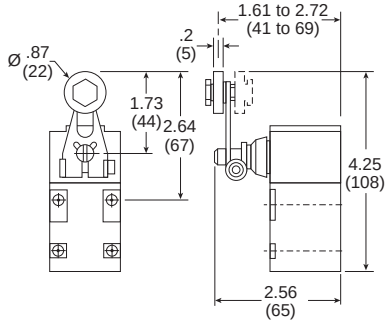


With ZC2JE70

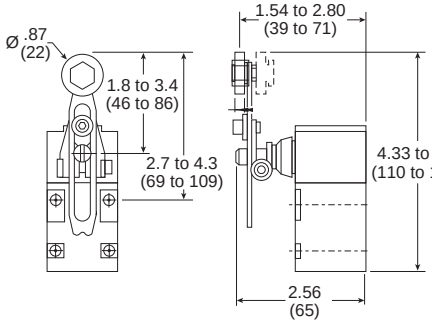


Switch Body With Rotary Heads and Operating Levers

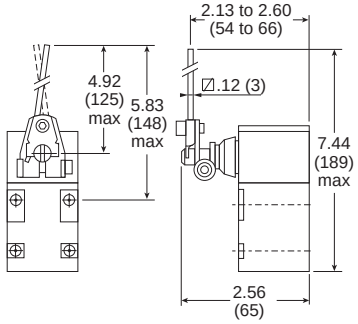
With ZC2JY11



With ZC2JY31

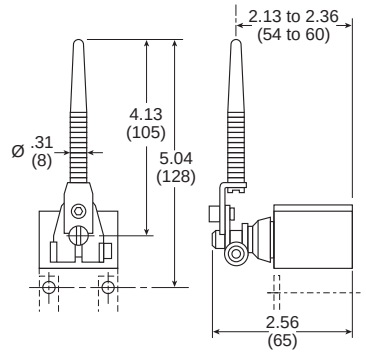


With ZC2JY51

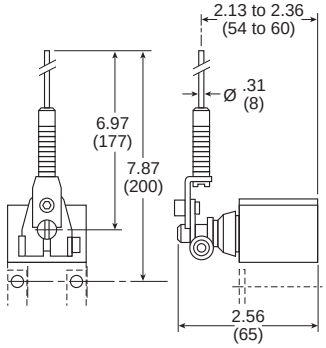


Rotary Heads With Operating Levers

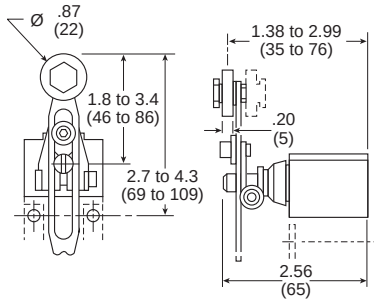
ZC2JY81



ZC2JY91

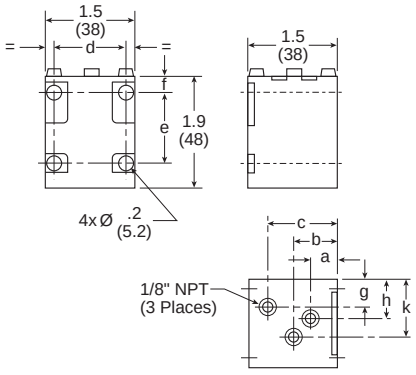


ZC2JY41



Pneumatic Switch Bodies

PXCJ117, PXCJ127



	inch	mm
a	.47	12
b	.75	19
c	1.16	29.5
d	1.14 to 1.18	29 to 30
e	1.18	30
f	.28	7
g	.43	11
h	.51	13
k	.94	24

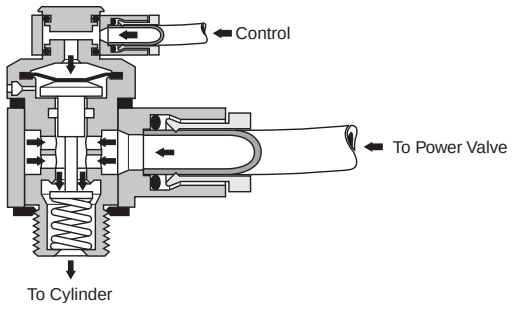
G

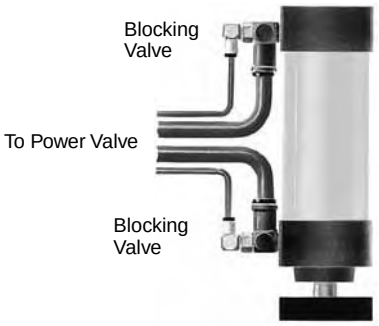
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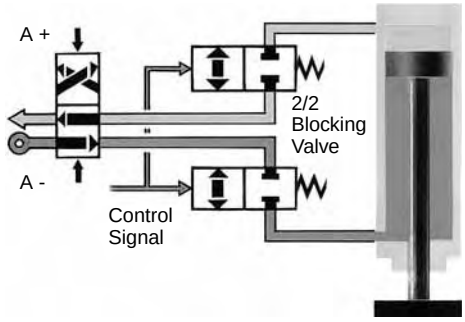
Blocking Valves

The blocking valve is a single acting spring return 2/2 valve in a tting format. The device requires a pneumatic pilot signal to open, which allows free ow of air, gas or liquid to pass. As long as a pilot signal is present, the device will remain open. When the pilot signal is removed, the internal spring will close the blocking valve, bubble tight. The blocking valve is oil serviceable and rated to 150 PSI.

These devices have two primary design uses: (1) to prevent unwanted gravity induced motion in cylinders during shut down procedures or during periods of lost supply pressure and (2) freezing the cylinder position by using a blocking valve at each end of the cylinder. Application needs such as tool or work piece protection, horizontal indexing or inspection stops are often satis ed by these devices.







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PWBA General Characteristics

Operating Pressure	0 to 150 PSI
Permissible Fluids	Air or neutral gas, 50 µm ltration, lubricated or not
Operating Temperature	5° to 140°F (-15° to 60°C)
Storage Temperature	-40° to 160°F (-40° to 70°C)
Flow	See page G15
Mechanical Life	10 Million
Maximum Operating Frequency	10Hz
Material: Body	Zinc alloy
Mounting Screw	Brass
Maximum Mounting Torque: 10-32 UNF and M5	88 inch pounds
1/8"	70 inch pounds
1/4"	105 inch pounds
3/8"	265 inch pounds
1/2"	310 inch pounds
Adjustment	N/A
Adjustment Locking	N/A

Piloting and De-Piloting Pressure

Blocking Valve Sizes	**Pilot with Operating Pressure of:**			
	30 PSI	**60 PSI**	**90 PSI**	**120 PSI**
1/8" BSP or NPT	33 PSI	40 PSI	45 PSI	50 PSI
1/4" BSP or NPT	33 PSI	40 PSI	45 PSI	50 PSI
3/8" BSP or NPT	35 PSI	40 PSI	45 PSI	50 PSI
1/2" BSP or NPT	45 PSI	50 PSI	55 PSI	60 PSI
Blocking Valve Sizes	**Depilot with Operating Pressure of:**			
	30 PSI	**60 PSI**	**90 PSI**	**120 PSI**
1/8" BSP or NPT	20 PSI	25 PSI	30 PSI	34 PSI
1/4" BSP or NPT	20 PSI	25 PSI	30 PSI	34 PSI
3/8" BSP or NPT	20 PSI	25 PSI	30 PSI	34 PSI
1/2" BSP or NPT	25 PSI	30 PSI	34 PSI	40 PSI

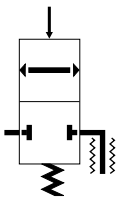
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For Cylinder Mounting
(Can also be mounted in Threshold Sensor Banjo)

With Instant Tube Fittings



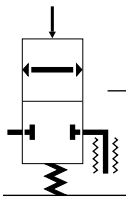
PWBA3469

BSP					NPT			
Symbol	Connection for Pilot	Cylinder Port Thread (Male)	Connection for Tube	Catalog Number	Connection for Pilot	Cylinder Port Thread (Male)	Connection for Tube	Catalog Number
	4mm Tube	1/8"	6mm	PWBA1468	5/32" Tube	1/8"	1/4"	PWBA3468
		1/4"	6mm	PWBA1469		1/4"	1/4"	PWBA3469
		1/4"	8mm	PWBA1489				
		3/8"	8mm	PWBA1483		3/8"	3/8"	PWBA3493
		3/8"	10mm	PWBA1493				
		1/2"	12mm	PWBA1412		1/2"	1/2"	PWBA3412

With Threaded Connections and Tube Pilot Port



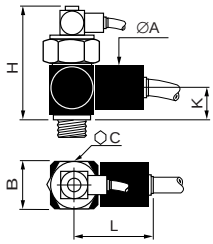
PWBA3833

BSP					NPT			
Symbol	Connection for Pilot	Cylinder Port Thread (Male)	Connection from Valve (Female)	Catalog Number	Connection for Pilot	Cylinder Port Thread (Male)	Connection from Valve (Female)	Catalog Number
	4mm Tube	1/8"	1/4"	PWBA1898	5/32" * Tube	1/8"	1/8"	PWBA3888
		1/4"	1/4"	PWBA1899		1/4"	1/4"	PWBA3899
	M5 Female	3/8"	3/8"	PWBA1833	5/32" * Tube	3/8"	3/8"	PWBA3833
		1/2"	1/2"	PWBA1822		1/2"	1/2"	PWBA3822

* Instant tting

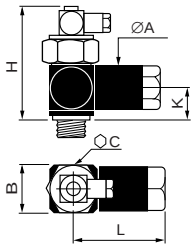
With Threaded Connections and Threaded Pilot Port

PWBA14/34

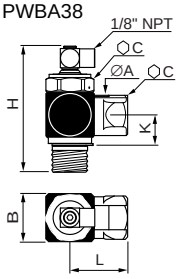


NPT			
Connection for Pilot	Cylinder Port Thread (Male)	Connection from Valve	Catalog Number
1/8" pipe	1/8"	1/8"	PWBA38887
	1/4"	1/4"	PWBA38997
	3/8"	3/8"	PWBA38337
	1/2"	1/2"	PWBA38227

PWBA18/38



PWBA38



Dimensions: Inches (mm)

	Flow*	ØA	B	C	K	H	L
PWBA1468/3468	14.8	0.86" (22)	0.82" (21)	0.94" (24)	0.53" (13.5)	2.32" (59)	1.54" (39)
PWBA1469/3469 PWBA1489	19.4	0.86" (22)	0.82" (21)	0.94" (24)	0.53" (13.5)	2.09" (53)	1.54" (39)
PWBA1483 PWBA1493/3493	45.9	1.06""(27)	1.10" (28)	0.94" (24)	0.55" (14)	2.09" (53)	1.98" (50)
PWBA1412/3412	81.2	1.22" (31)	1.30" (33)	1.30" (33)	0.94" (24)	2.59" (66)	2.59" (66)
PWBA1898/3888	14.8	0.86" (22)	0.82" (21)	0.94" (24)	0.53" (13.5)	2.32" (59)	1.71" (43.5)
PWBA1899/3899	19.4	0.86" (22)	0.82" (21)	0.94" (24)	0.53" (13.5)	2.09" (53)	1.71" (43.5)
PWBA1833/3833	45.9	1.06" (27)	1.10" (28)	0.94" (24)	0.55" (14)	2.09" (53)	2.18" (55)
PWBA1822/3822	81.2	1.22" (31)	1.30" (33)	1.30" (33)	0.94" (24)	2.59" (66)	2.47" (63)
PWBA38887	14.8	0.75" (19)	0.87" (22)	0.83" (21)	0.67" (17)	2.20" (56)	1.73" (44)
PWBA38997	19.4	0.75" (19)	0.87" (22)	0.83" (21)	0.67" (17)	2.20" (56)	1.73" (44)
PWBA38337	45.9	1.06" (27)	1.18" (30)	1.06" (27)	0.91" (23)	2.64" (67)	1.42" (36)
PWBA38227	81.2	1.06" (27)	1.18" (30)	1.06" (27)	0.91" (23)	2.64" (67)	1.42" (36)

*SCFM at 90 PSI

G

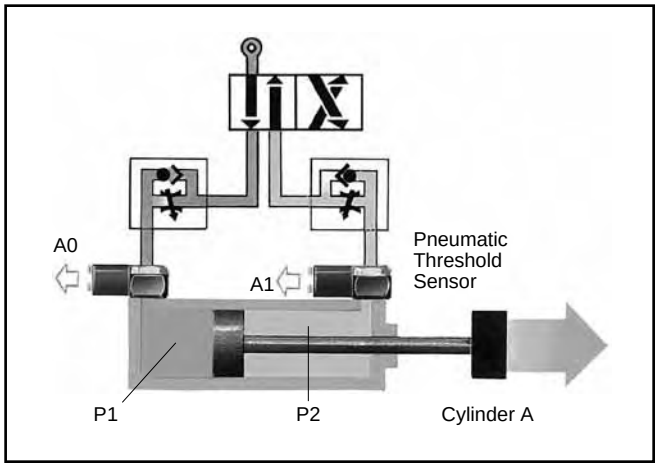
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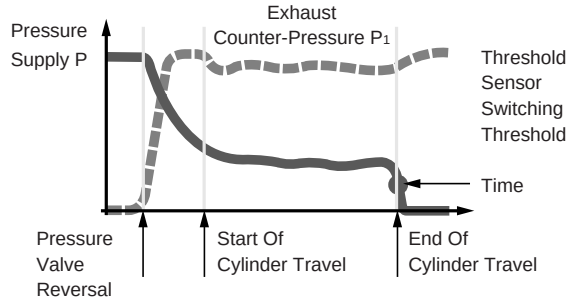
General Description

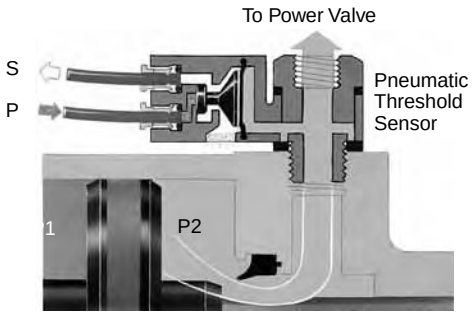
Threshold Sensors – PWS

The plug-in threshold sensors provide feedback information on pneumatic cylinder status in one of three possible outputs . . . pneumatic, electric, or electronic. Mounted into the cylinder port, these devices monitor the back pressure of the cylinder's exhaust. When the cylinder's piston stops, the back pressure rapidly drops and the threshold sensor provides the desired output. Ideal for variable stroke applications such as robotics where other sensor type devices such as limit switches are impractical, these devices provide a signal whenever the cylinder stops motion.

The threshold sensor consists of two complementary sub assemblies (1) the banjo tting and (2) the plug-in sensor element. In all cases, the sensor is easily plugged into the banjo tting and locked in place with a spring clip. The banjo tting is designed to accept (piggy backed) other functional ttings such as ow controls or blocking valves. Simply select the sensor based on the type feedback signal that best ts the application.







PWS General Characteristics

Operating Pressure	0 to 150 PSI
Permissible Fluids	Air or neutral gas, 50 µm ltration, lubricated or not
Operating Temperature	5° to 140°F (-15° to 60°C)
Storage Temperature	-40° to 160°F (-40° to 70°C)
Flow	N/A
Mechanical Life	10 Million
Maximum Operating Frequency	10Hz
Material: Body	Thermoplastic
Mounting Screw	Brass
Maximum Mounting Torque: 10-32 UNF and M5	88 inch pounds
1/8"	70 inch pounds
1/4"	105 inch pounds
3/8"	265 inch pounds
1/2"	310 inch pounds
Adjustment	N/A
Adjustment Locking	N/A

Piloting and De-Piloting Pressure

Threshold Sensors	Pilot with Operating Pressure of 90 PSI	Depilot with Operating Pressure of 90 PSI
PWSP111	64 PSI	6 PSI
PWSM1012	15 PSI	9 PSI
PWSE101 and PWSE111	10 PSI	7 PSI

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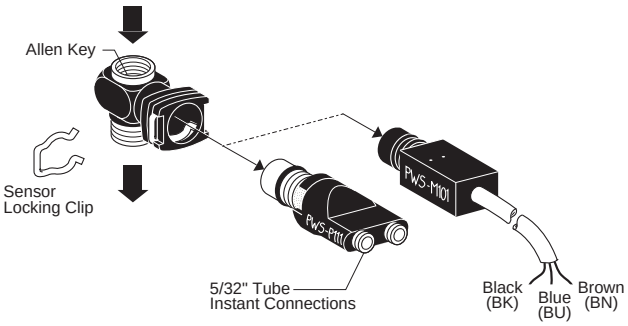
Model Selection

Banjo Sockets (with Sensor Clip)		
Port Size	**Model Number**	**Wrench**
10-32	**PWSB1557**	5/16" Hex
1/8"	**PWSB1887**	3/16" Allen
1/4"	**PWSB1997**	5/16" Allen
3/8"	**PWSB1337**	3/8" Allen
1/2"	**PWSB1227**	1/2" Allen

Plug-in Sensors		
Output	**Model Number**	**Connection**
Pneumatic	**PWSP111**	5/32" push-in
Electrical	**PWSM1012**	3-wire cable (6 ft)

Application

The threshold sensor provides electrical or pneumatic feedback information on pneumatic (air) cylinder status. These devices monitor the back pressure of the cylinder's exhausting chamber. When the cylinder stops, the back pressure drops and the threshold sensor provides the desired output. Ideal for variable stroke applications. The banjo tting and the feedback element are two separate subassemblies, giving the user exibility between electrical and pneumatic outputs as feedback.

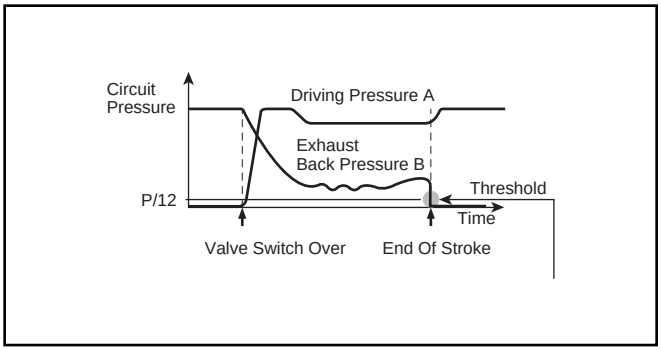


Mounting

Banjo ttings in 10-32 to 1/2" pipe sizes are designed to be installed directly into actuator ports (up to 5" bore cylinders). The banjo tting can accommodate other functional ttings and components such as right angle ow control valves or blocking valves. Banjo ttings screw into actuators using an Allen wrench or 5/16" hex head wrench for 10-32 size. Electrical or pneumatic feedback element snaps into place using a locking clip.

Operation

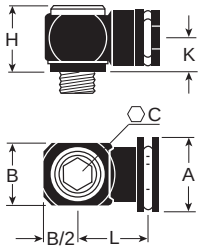
Pneumatic sensors have a continuous pressure signal applied to the sensor device. Electrical sensors have a continuous electrical signal applied to the sensor device. The threshold sensor assembly mounted directly into the cylinder Port provides an output signal S, which can be pneumatic or electrical, when the falling back pressure in the exhausting chamber of the cylinder reaches the operating threshold (approximately 6-9 PSIG). (The device is a normally passing device. The output is only on when there is nearly zero pressure at the cylinder.)



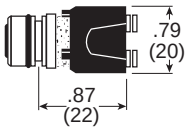
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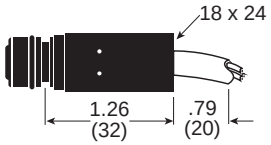
Dimensions



Banjo Socket



PWSP111



PWSM1012

Model	A	B	C	H	K	L
PWSB1557	.98 (25)	.43 (11)	5/16" Hex	.79 (20)	.40 (10)	.67 (17)
PWSB1887	.98" (25)	.63 (16)	3/16" Allen	.71 (18)	.40 (10)	.79 (20)
PWSB1997	.98 (25)	.83 (21)	5/16" Allen	.71 (18)	.40 (10)	.87 (22)
PWSB1337	.98 (25)	1.10 (28)	3/8" Allen	.79 (20)	.47 (12)	.98 (25)
PWSB1227	.98 (25)	1.30 (33)	1/2" Allen	.93 (24)	.55 (14)	1.02 (26)

inches
(mm)

Specifications

Operating Pressure ..... 0 to 150 PSIG (0 to 10 bar)

Temperature Range .....5°F to 140°F (-15°C to 60°C)

⚠ ***CAUTION:*** **If it is possible that the ambient temperature may fall below freezing, the medium must be moisture free to prevent internal damage or unpredictable behavior.**

Maximum Operating Frequency ..... 10 Hz

Pilot Pressure (PWSP111) ..... >64 PSIG (4.4 bar)

Threshold Pressure ..... 6 to 9 PSIG (.4 to .6 bar)

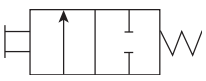
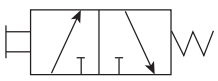
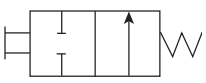
Output Flow Rate (PWSP111) .....3 SCFM at 90 PSIG

Current Rating (PWSM1012) –
5 VA, 250 VAC
5W, 48 VAC

Materials –
Body.....Thermoplastic
Mounting Screw & Threads.....Brass

Life Expectancy –
10 million cycles with dry air at 90 PSIG, 68°F, and 1 Hz operating frequency

Voltage Range (PWSM1012) –
12 - 240 VAC
12 - 48 VDC

Universal Description	Electrical		Fluid Power		
	Function	Symbol	Function	Symbol	
Normally Non-Passing (NNP)	Normally Open (N.O.)		Normally Closed (N.C.)	2-Way 	3-Way 
Normally Passing (NP)	Normally Closed (N.C.)		Normally Open (N.O.)		

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“LV” & “EZ” Series

Lockout Valves, 3-Way, 3-Port, 2-Position

Section H

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H

“LV” Series
- Basic Features H2
- Applications H2
- Mounting H2
- Dimensions H2

“LV” Series Technical Information
- Operation H3
- Specifications H3
- Ordering Information H3

“EZ” Series
- Basic Features H4
- Applications H4
- Mounting H4
- Dimensions H4

“EZ” Series Technical Information
- Operation H5
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Flow & Safety Standards H6

Bold text part numbers are standard.
Standard text part numbers may have longer lead times.

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"LV" Series

Features

- Used in systems for compliance with OSHA Standard 29 CFR Part 1910
- 3/8 inch to 1-1/4 inch Pipe Sizes
- Cv's from 6.0 to 14
- 3/4 and 1-1/4 inch Exhaust Ports available
- Rugged Cast Aluminum Alloy Body
- Inline or Surface Mountable
- Safety Yellow and Red for High Visibility
- Detented Spool
- Exhaust Port Threaded for Installation of Silencer or Line for Remote Exhausting



1-1/4" Exhaust Shown

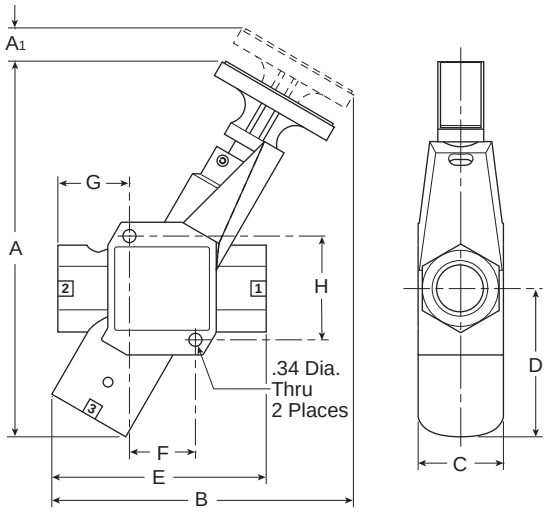
Applications

Lockout valves are installed in pneumatic drop legs, or individual pneumatic control lines (see Figure 1). In accordance with OSHA procedures, lockout valves are used during maintenance and service procedures of pneumatically (air) operated equipment. Prior to servicing, the red handle is pressed inward, blocking pressure and relieving all downstream air pressure. A padlock is installed through the locking hasp, Preventing accidental actuation during the maintenance procedure. Following maintenance, the padlock is removed and the red handle is pulled outward, returning air pressure to the system.
(For complete Lockout / Tagout procedures, consult OSHA Standard 29 CFR Part 1910 in U.S. Federal Register/Vol. 54 No. 169, Friday, September 1, 1989 / Page 36644.)

Mounting

Valves can be inline mounted or surface mounted using the two 11/32" mounting holes provided in the valve body. Mount valves in plain view with the handle oriented for accessibility.

Dimensions



LV Series, 3/4" Exhaust Port **Inches (mm)**

A	A1	B	C	D
8.32 (211)	0.64 (16)	6.60 (168)	2.00 (51)	3.06 (78)
E	**F**	**G**	**H**	
4.24 (108)	1.32 (111)	1.56 (40)	2.21 (56)	

LV Series, 1-1/4" Exhaust Port **Inches (mm)**

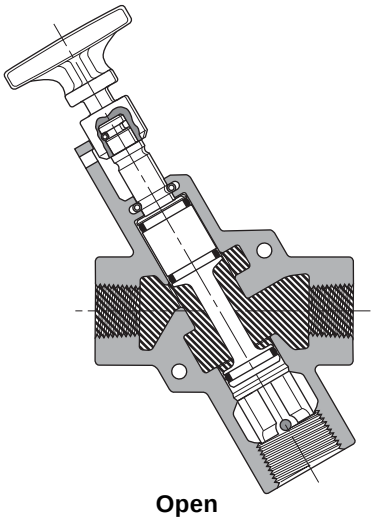
A	A1	B	C	D
9.91 (252)	0.85 (22)	7.95 (202)	2.25 (57)	3.91 (99)
E	**F**	**G**	**H**	
5.65 (144)	1.74 (44)	1.89 (48)	2.74 (70)	

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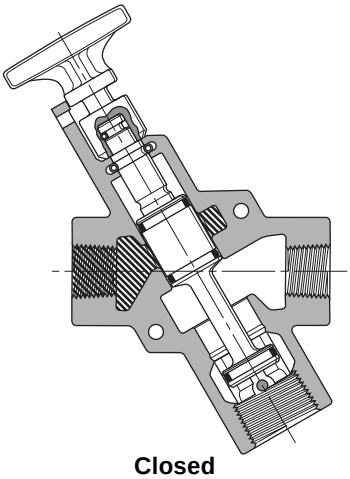
Operation

Normal Machine Operation – Valve Open
With the handle pulled outward. Inlet Port 1 is open to outlet Port 2. Exhaust Port 3 is blocked.

Lockout Operation – Valve Closed
With the handle pushed inward. Inlet Port 1 is blocked. Outlet Port 2 is open to Exhaust Port 3.



Open



Closed

Specifications

Operating Pressure Range:
0 to 250 PSIG (0 to 1725 kPa)

Operating Temperature Range (Ambient):
32°F to 160°F (0°C to 71°C)

Lubrication:
For best results and service life, use clean, moisture free, lubricated air.

Recommended Lubricant:
F442 Oil

Materials of Construction

Body ..... Cast Aluminum Alloy

Handle .....3/4" Exhaust Port - Cast Aluminum Alloy
1-1/4" Exhaust Port - Plastic

Spool ..... Aluminum

Seals .....Carboxylated Nitrile

Detent Spring.....Stainless Steel

Grease .....Magnalube G†

H

LV Series Model Number Index

Basic Series	Port Size	Thread Type	Port Size	Design Level
LV	6	N	A	B

Port Size (Inlet & Outlet Ports 1 & 2)	
3	3/8" *
4	1/2" *
6	3/4" *‡
8	1" ‡
A	1-1/4" ‡

Thread Type (Ports 1, 2 & 3)	
N	NPT
B	BSPP (G)

Port Size (Exhaust Port 3)	
6	3/4"
A	1-1/4"

Design Level	
B	Current

* Available with 3/4" Exhaust Port.

‡ Available with 1-1/4" Exhaust Port.

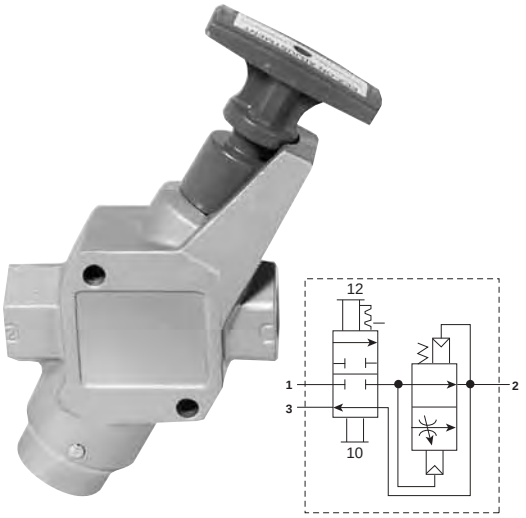
† Trademark Magnalube

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"EZ" Series

Features

- Combines Lockout and Soft-Start Functions in a Single Unit
- Used in systems for compliance with OSHA Standard 29 CFR Part 1910
- 3/8 inch to 1-1/4 inch Pipe Sizes
- Cv's from 3.7 to 13.7
- 3/4 and 1-1/4 inch: Exhaust Ports available
- Rugged Cast Aluminum Alloy Body
- Exhaust Port Threaded for Installation of Silencer or Line for Remote Exhausting
- Inline or Surface Mountable



3/4" Exhaust Shown

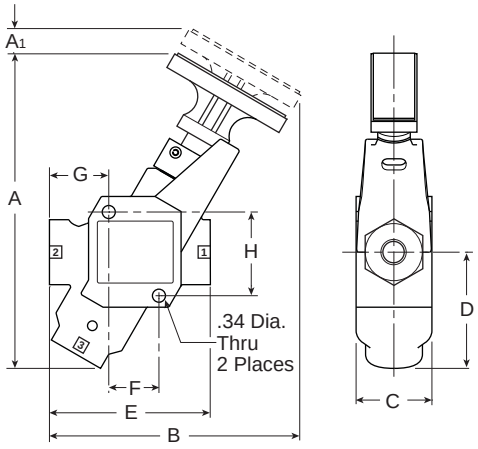
Applications

EZ valves are installed in pneumatic drop legs, or individual pneumatic control lines (see Figure 1). In accordance with OSHA procedures, EZ valves are used during maintenance and service procedures of pneumatically (air) operated equipment. Prior to servicing, the blue handle is pressed inward, blocking pressure and relieving all downstream air pressure. A padlock is installed through the locking hasp, preventing accidental actuation during the maintenance procedure. Following maintenance, the padlock is removed and the blue handle is pulled outward, gradually returning air pressure to the system. (For complete Lockout / Tagout procedures, consult OSHA Standard 29 CFR Part 1910 in U.S. Federal Register/Vol. 54 No. 169, Friday, September 1, 1989 / Page 36644.)

Mounting

Valves can be inline mounted or surface mounted using the two 11/32" mounting holes provided in the valve body. Mount valves in plain view with the handle oriented for accessibility.

Dimensions



EZ Series, 3/4" Exhaust Port **Inches (mm)**

A	A1	B	C	D
8.32 (211)	0.64 (16)	6.60 (168)	2.00 (51)	3.06 (78)
E	**F**	**G**	**H**	
4.24 (108)	1.32 (111)	1.56 (40)	2.21 (56)	

EZ Series, 1-1/4" Exhaust Port **Inches (mm)**

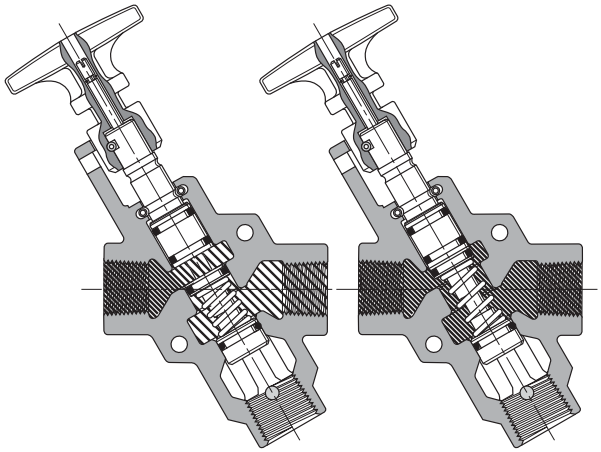
A	A1	B	C	D
9.91 (252)	0.85 (22)	7.95 (202)	2.25 (57)	3.91 (99)
E	**F**	**G**	**H**	
5.65 (144)	1.74 (44)	1.89 (48)	2.74 (70)	

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Operation

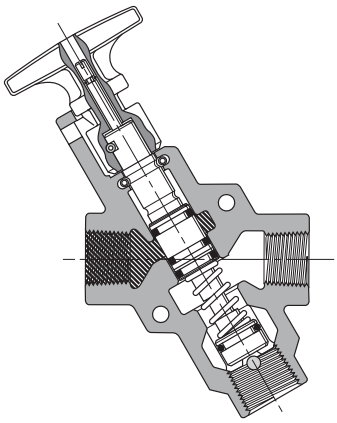
Normal Machine Operation – Valve Open
When the blue handle is pulled outward, the adjustable needle valve (accessed through the top of the handle) setting determines the rate of pressure buildup. When downstream pressure reaches the full flow described in the specifications below, Inlet Port 1 is open to outlet Port 2. Exhaust Port 3 is blocked.

Lockout Operation – Valve Closed
When the blue handle is pushed inward, the Inlet Port 1 is blocked. Downstream air is exhausted through Exhaust Port 3.



Open
Pressure Building Up

Open
Full Flow



Closed

Specifications

Operating Pressure Range:
30 to 150 PSIG (2 to 10 bar)
Open to Full Flow: Inlet Pressure - 25 PSIG (1.7 bar)

Operating Temperature Range (Ambient):
40°F to 175°F (4°C to 80°C)

Lubrication:
For best results and service life, use clean, moisture free, lubricated air.

Recommended Lubricant:
F442 Oil

Materials of Construction

Body ..... Cast Aluminum Alloy
Handle ..... Plastic
Spool ..... Aluminum
Seals ..... Carboxylated Nitrile
Detent Spring ..... Stainless Steel
Grease ..... Magnalube G†

H

EZ Combination EEZ-On Series Model Number Index

Basic Series	Port Size	Thread Type	Design Level	Port Size
EZ	03	N	B	A

Port Size (Inlet & Outlet Ports 1 & 2)	
03	3/8" *
04	1/2" *
06	3/4" *‡
08	1" ‡
0A	1-1/4" ‡

Thread Type (Ports 1, 2 & 3)	
N	NPT
B	BSPP (G)
R	BSPT (R)

Design Level	
B	Current

Port Size (Exhaust Port 3)	
6	3/4"
A	1-1/4"

Notes:
* Available with 3/4" Exhaust Port.
‡ Available with 1-1/4" Exhaust Port.

† Trademark Magnalube

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Flow

Model	1 to 2 Cv	2 to 3 Cv
LV3N6B	6.00	8.00
LV4N6B	7.10	8.30
LV6N6B	8.60	9.50
LV6NAB	13.00	12.00
LV8NAB	13.00	14.00
LVANAB	20.00	14.00

Model	1 to 2 Cv	2 to 3 Cv
EZ03NB6	3.79	3.78
EZ04NB6	5.31	3.77
EZ06NBA	6.01	9.25
EZ08NBA	11.18	8.13
EZ0ANBA	13.74	8.03

Schematic

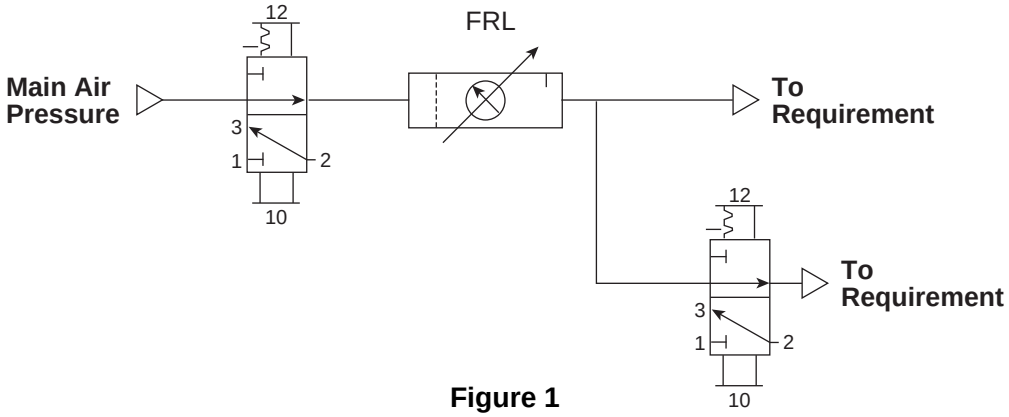


Figure 1
Lockout Valves Shown In The Passing Condition

Friday, September 1, 1989 the Occupational Safety and Health Administration (OSHA) passed a standard, 29CFR Part 1910, requiring certain lockout and / or tagout procedures for the control of a hazardous energy source. This standard addresses practices and procedures that are necessary to disable the release of potentially hazardous energy while maintenance and servicing activities are being performed. Tagout refers to the use of tags to warn workers when equipment using potentially hazardous energy is being serviced. Lockout is the procedure which ensures that all power to a piece of equipment is isolated, locked or blocked and dissipated using a method that cannot be readily removed to bypassed. Dissipation means stored energy at the equipment is brought to a neutral state. This standard is expected to save 120 lives and prevent 60,000 accidents a year. This OSHA Standard became effective October 31, 1989.

A typical application (Figure 1) shows a main lockout valve mounted in the main drop leg, before the split to machine functions. Additional lockout valves can be used to isolate individual control lines. Before servicing, the valve can be actuated and locked to isolate downstream from pressure, and exhaust downstream to atmosphere thus making equipment safe for maintenance.

To reference this standard see the U.S. Federal Register / Vol. 54, No. 169 / Friday, September 1, 1989 / Page 36644. For copies of this standard, contact U.S. Department of Labor, Occupational Safety and Health Administration, Office of Publication, Room N3101, Washington, DC 20210, (202) 523-9667.

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Ball Valves

1/4" to 2", 2-Way
1/4" to 1", 2-Way Vented

Plug Valves

1/8" to 1/4" Pipe Size

Section J
www.parker.com/pneu/ball



Ball Valve Series 500
- Basic Features J2
- Part Numbers & Dimensions.....J3-J4

Ball Valve Series 520
- Basic Features J6
- Part Numbers & Dimensions.....J7

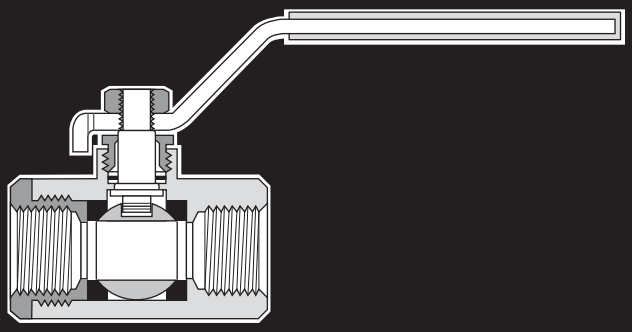
Ball Valve Series 708 / 709
- Basic Features J8
- Part Numbers & Dimensions.....J9

Ball Valve Series 200 / 608 / 609
- Basic Features J10
- Part Numbers & Dimensions.....J11

Plug Valve / Drain Cock
- Basic Features J12
- Part Numbers & Dimensions.....J13

J

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Brass Ball Valves Series 500

Advantages

Parker's forged body ball valve provides extended service life and resists failure caused by severe temperature applications. Optimum flow design assures maximum system efficiency. Highly inert PTFE seats and seals provide resistance to chemical corrosion. Parker also provides a blow-out proof stem, chrome plated brass ball and a specially designed handle enabling increased turning leverage for ease of opening and closing. Parker's ball valve can be readily identified assuring high quality engineering and reliability. This economical ball valve is available in female pipe sizes. Parker's ball valve bodies are machined from high quality CA 377 forgings.

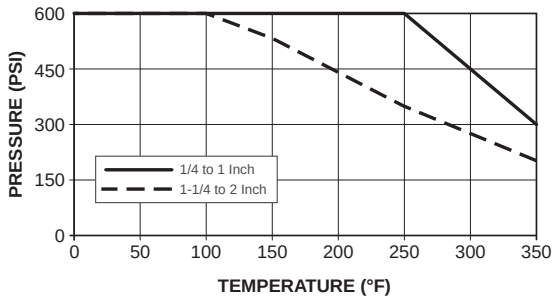
Applications

Parker's industrial ball valve product line is intended for general purpose use. Please be aware that ball valves are intended for use in the fully open or closed positions. Depending on application conditions, throttling of the valve may result in premature seal failure and/or inability to turn the valve handle.

For use as fuel line shutoffs for gasoline and diesel powered over the highway, off highway, and construction equipment vehicles. Water and air service lines on capital equipment and plant design plumbing that require total shutoff capability.

Working Pressure and Temperature

Saturated steam service up to 150 PSI and 400°F
Vacuum, 29 Inches of Mercury
Vented up to 250 PSI



Operating Instructions

Quarter turn is "ON" or "OFF".
(Provides positive stop action for full shutoff.)

NOTE: PERIODICALLY CHECK THE ADJUSTABLE PACKING NUT AND TIGHTEN AS REQUIRED.

Style	Type	Material	Size	Options
V	**500**	**P**	**4**	**00**
Style	V – Valve			
	VP – Valve, Padlocking Handle			
	VV – Valve, Vented			
	VVP – Valve, Vented, Padlocking Handle			
Type	500 – Female / Female PTF Ports			
Material	P – Brass PN – Nickle Plated			
Size	4 - 1/4"			
	6 - 3/8"			
	8 - 1/2"			
	12 - 3/4"			
	16 - 1"			
Options	04 - Tee handle			

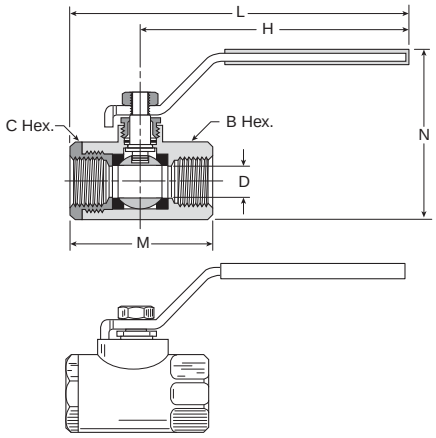
Style	Type	Material	Size
V	**500**	**P**	**20**
Style	V – Valve		
	VP – Valve, Padlocking Handle		
Type	500 – Female / Female PTF Ports		
Material	P – Brass		
Size	20 – 1-1/4"		
	24 – 1-1/2"		
	32 – 2"		

Flow Data

Valve Size	C_v
1/4	4.0
3/8	5.8
1/2	12.0
3/4	35.0
1	54.0
1-1/4	57.0
1-1/2	92.0
2	224.0

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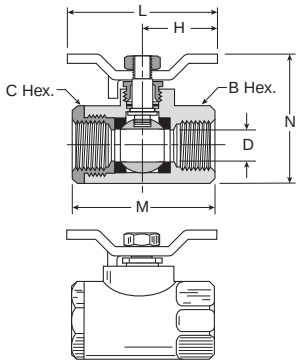
V500P Female-Female Pipe Ends



Part No.	Pipe Thread [PTF]	B Hex.	C Hex.	H	L	M	N	Flow Dia. D
V500P-4	1/4	15/16	15/16	3.96	4.90	2.03	2.47	0.375
V500P-6	3/8	15/16	15/16	3.96	4.90	2.03	2.47	0.375
V500P-8	1/2*	1-1/16	1-1/16	3.96	5.00	2.20	2.58	0.500
V500P-12†	3/4**	1-1/4	1-5/16	3.96	5.25	2.42	2.81	0.685
V500P-16†	1**	1-1/2	1-9/16	3.96	5.34	2.75	3.08	0.875

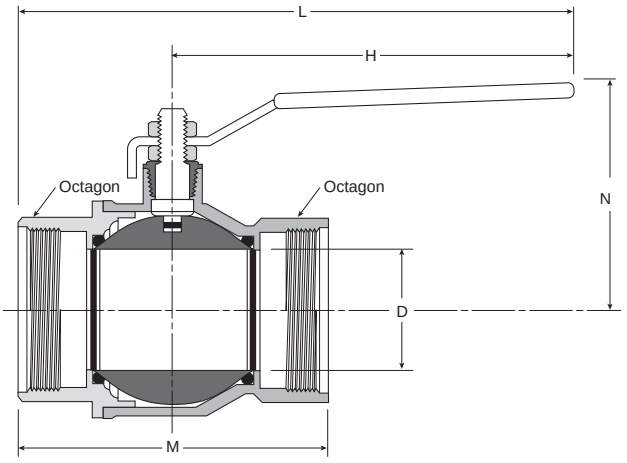
*PTF special short
**PTF special extra short
† Available in Full Flow Panel Mount, see XV508P Series

V500P-X-04 Tee Handle, Female Pipe Ends



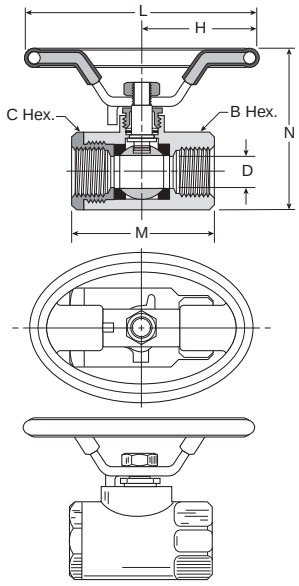
Part No.	Pipe Thread	B Hex.	C Hex.	H	L	M	N	Flow Dia. D
V500P-4-04	1/4	15/16	15/16	1.25	2.50	2.03	1.87	.375
V500P-6-04	3/8	15/16	15/16	1.25	2.50	2.03	1.87	.375
V500P-8-04	1/2*	1-1/16	1-1/16	1.25	2.50	2.20	1.98	.500
V500P-12-04	3/4**	1-1/4	1-5/16	1.25	2.50	2.42	2.20	.685
V500P-16-04	1**	1-1/2	1-9/16	1.25	2.50	2.75	2.48	.875

V500P-20, V500P-24, V500P-32 Female - Female Pipe Ends



Part No.	Pipe Thread [PTF]	Octagon	H	L	M	N	Dia. D
V500P-20	1-1/4	1.93	6.22	8.05	3.66	3.01	1.18
V500P-24	1-1/2	2.13	6.22	8.23	4.02	3.25	1.50
V500P-32	2	2.69	6.22	8.58	4.76	3.52	1.89

V500P-X-21 Oval Handle, Female Pipe Ends

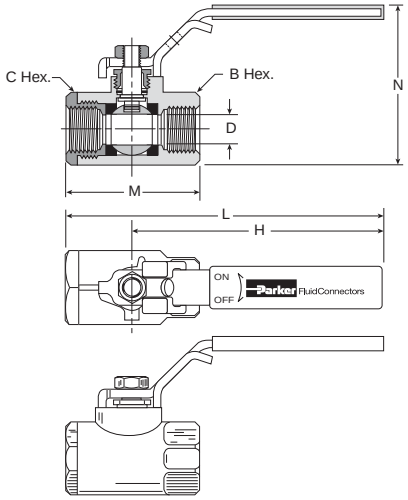


Part No.	Pipe Thread	B Hex.	C Hex.	H	L	M	N	Flow Dia. D
V500P-4-21	1/4	15/16	15/16	1.74	3.49	2.03	2.38	.375
V500P-6-21	3/8	15/16	15/16	1.74	3.49	2.03	2.38	.375
V500P-8-21	1/2*	1-1/16	1-1/16	1.74	3.49	2.20	2.49	.500
V500P-12-21	3/4**	1-1/4	1-5/16	1.74	3.48	2.42	2.71	.685
V500P-16-21	1**	1-1/2	1-9/16	1.74	3.48	2.75	2.99	.875

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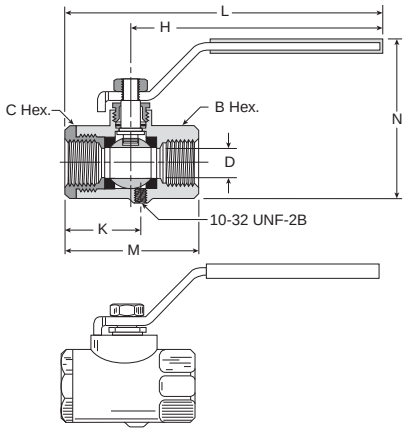
VP500P Locking Handle, Female Pipe Ends



Part No.	Pipe Thread	B Hex.	C Hex.	H	L	M	N	Flow Dia. D
VP500P-4	1/4	15/16	15/16	3.96	4.90	2.03	2.47	0.375
VP500P-6	3/8	15/16	15/16	3.96	4.90	2.03	2.47	0.375
VP500P-8	1/2*	1-1/16	1-1/16	3.96	5.00	2.20	2.58	0.500
VP500P-12	3/4**	1-1/4	1-5/16	3.96	5.25	2.42	2.81	0.685
VP500P-16	1**	1-1/2	1-9/16	3.96	5.34	2.75	3.08	0.875
For use with 5/16" Dia. shank lock; 0.33 Dia.								
VP500P-20	1-1/4	1-15/16	1-15/16	6.22	8.05	3.66	4.04	1.180
VP500P-24	1-1/2	2-1/8	2-1/8	6.22	8.23	4.02	4.52	1.500
VP500P-32	2	2-11/16	2-11/16	6.22	8.60	4.76	5.07	1.890
For use with 9/32" Dia. shank lock; 0.31 Dia.								

*PTF special short
**PTF special extra short

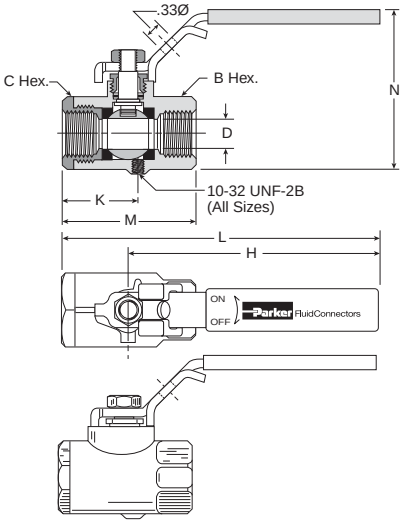
VV500P Vented, Female Pipe Ends



Part No.	Pipe Thread [PTF]	B Hex.	C Hex.	K	H	L	M	N	Flow Dia. D
VV500P-4	1/4	15/16	15/16	1.11	3.96	4.90	2.03	2.47	0.375
VV500P-6	3/8	15/16	15/16	1.11	3.96	4.90	2.03	2.47	0.375
VV500P-8	1/2*	1-1/16	1-1/16	1.23	3.96	5.00	2.20	2.58	0.500
VV500P-12	3/4**	1-1/4	1-5/16	1.45	3.96	5.25	2.42	2.81	0.685
VV500P-16	1**	1-1/2	1-9/16	1.58	3.96	5.34	2.75	3.08	0.875

*PTF special short
**PTF special extra short

VVP500P OSHA 29 CFR Part 1910 Vented, Locking Handle, Female Pipe Ends



Part No.	Pipe Thread	B Hex.	C Hex.	K	H	L	M	N	Flow Dia. D
VVP500P-4	1/4	15/16	15/16	1.11	3.96	4.90	2.03	2.47	0.375
VVP500P-6	3/8	15/16	15/16	1.11	3.96	4.90	2.03	2.47	0.375
VVP500P-8	1/2*	1-1/16	1-1/16	1.23	3.96	5.00	2.20	2.58	0.500
VVP500P-12	3/4**	1-1/4	1-5/16	1.45	3.96	5.25	2.42	2.81	0.685
VVP500P-16	1**	1-1/2	1-9/16	1.58	3.96	5.34	2.75	3.08	0.875

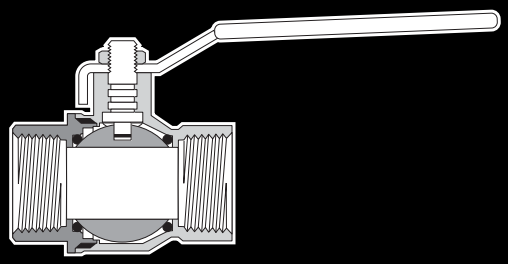
For use with 5/16" Dia. shank lock
*PTF special short
**PTF special extra short

J

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Brass Ball Valves Series 520

Advantages

Parker's forged body ball valve provides extended service life and resists failure caused by severe temperature applications. Full flow design assures maximum system efficiency. Highly inert PTFE seats provide resistance to chemical corrosion. Two Viton o-rings at the stem provide maximum safety with no maintenance. The blow-out proof stem, chrome plated brass ball and a specially designed handle enable increased turning leverage for ease of opening and closing. Parker's ball valve can be readily identified, assuring high quality engineering and reliability. This economical ball valve is available in female pipe sizes.

Applications

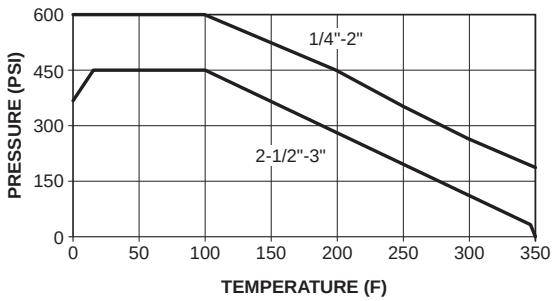
Parker's industrial ball valve product line is intended for general purpose use. Please be aware that ball valves are intended for use in the fully open or closed positions. Depending on application conditions, throttling of the valve may result in premature seal failure and/or inability to turn the valve handle.
For use as shutoffs for highway, off highway, and construction equipment vehicles. Water and air service lines on capital equipment and plant design plumbing that require total shutoff capability.

Working Pressure and Temperature

Saturated steam service up to 150 PSI and 350° F
Vacuum, 29 Inches of Mercury

Operating Instructions

Quarter turn is "ON" or "OFF".
(Provides positive stop action for full shutoff.)



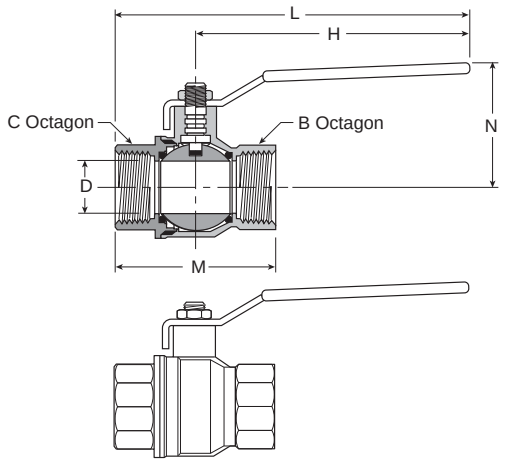
Style	Type	Material	Size	Options
V	**520**	**P**	**4**	**00**
Style	V – Valve			
Type	520 – Female / Female PTF Ports			
Material	P – Brass			
Size	4 - 1/4"			
	6 - 3/8"			
	8 - 1/2"			
	12 - 3/4"			
	16 - 1"			
	20 - 1-1/4"			
	24 - 1-1/2"			
	32 - 2"			

U.L. Listed

U.L. Category	Description
YSDT	LP-Gas Shut-off Valves
YRBX	Flammable Liquid Shut-off Valves
YRPV	Gas Shut-off Valves
YQNZ	Compressed Gas Shut-off Valves

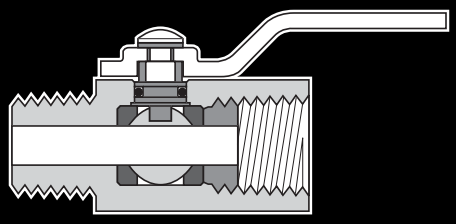
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Brass Ball Valve V520P



Part No.	Pipe Thread	B Octagon	C Octagon	H	L	M	N	Flow Dia. D
V520P-4	1/4-18	.79	.79	3.94	4.83	1.77	1.50	.310
V520P-6	3/8-18	.79	.79	3.94	4.83	1.77	1.50	.400
V520P-8	1/2-14	.98	.98	3.94	5.10	2.32	1.69	.600
V520P-12	3/4-14	1.22	1.22	4.72	5.98	2.52	1.97	.790
V520P-16	1-11.5	1.57	1.57	4.72	6.32	3.19	2.13	1.000
V520P-20	1-1/4	1.93	1.93	6.22	8.05	3.66	2.82	1.250
V520P-24	1-1/2	2.13	2.13	6.22	8.23	4.02	3.06	1.570
V520P-32	2	2.69	2.69	6.22	8.58	4.76	3.33	2.000
V520P-40	2-1/2	3.35	3.35	10.04	13.11	6.14	5.20	2.520
V520P-48	3	3.89	3.89	10.04	13.52	6.97	5.51	3.000

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Micro Ball Valve Series 708 / 709

Advantages

The Parker Micro-Valve is designed to be used in confined and hard to reach applications. This miniature 2-Way valve has a barstock body for extended service life and is offered with either male / female or female / female pipe ends. Features of the MV708 / 709 valves include chrome plate ball, PTFE seats, nitrile stem seal and a low profile chrome plated steel handle.

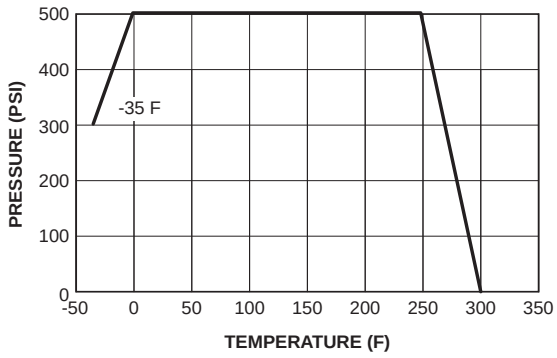
Applications

Parker's industrial ball valve product line is intended for general purpose use. Please be aware that ball valves are intended for use in the fully open or closed positions. Depending on application conditions, throttling of the valve may result in premature seal failure and / or inability to turn the valve handle.

Working Pressure and Temperatures

These valves are designed and built for use at pressures and temperatures within the stated ranges. Consult the factory for any use outside of these ranges.

Vacuum to 29 inches Hg



Operating Instructions

Quarter turn is "ON" or "OFF".
(Provides positive stop action for full shutoff.)

Style	Type	Size
MV	**708**	**4**
	709	
Style	MV – Mini Valve	
Type	708 – Male / Female	
	709 – Female / Female	
Size	4 - 1/4"	

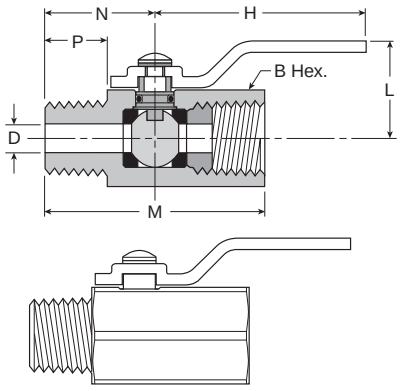
Flow Data

Valve Size	MV708 Cv	MV709 Cv
1/4	.95	.95

J

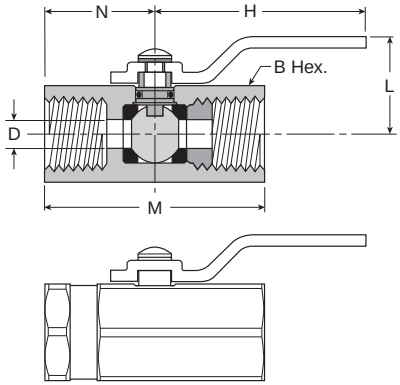
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MV708 Male-Female Pipe Ends, Mini Ball Valve



Part No.	Pipe Thread	B Hex.	H	L	M	N	P	Flow Dia. D
MV708-4	1/4	11/16	1.52	.70	1.57	.79	.50	.210

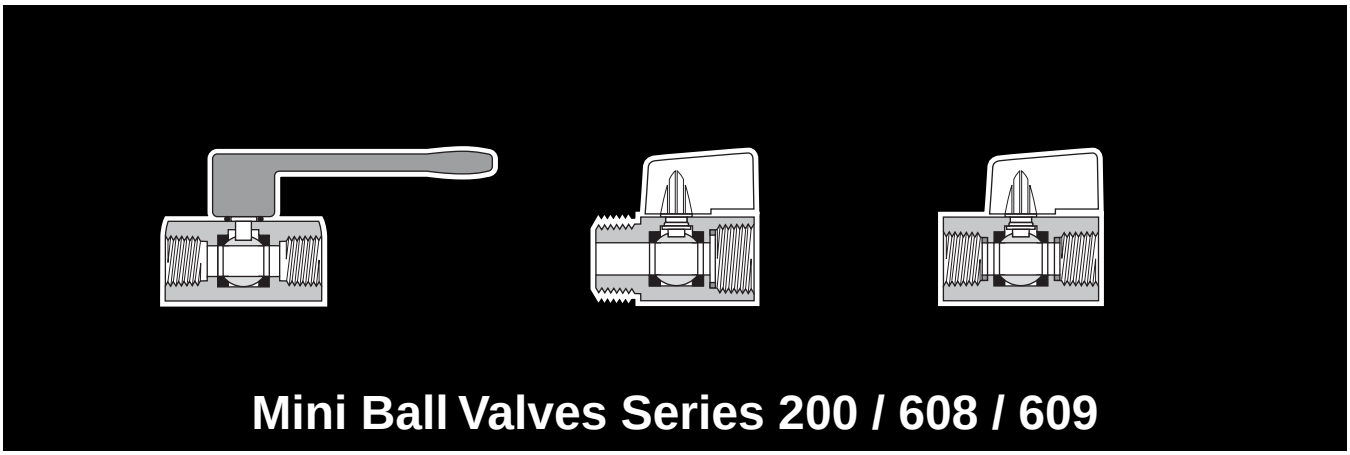
MV709 Female Pipe Ends, Mini Ball Valve



Part No.	Pipe Thread	B Hex.	H	L	M	N	Flow Dia. D
MV709-4	1/4	11/16	1.52	.70	1.57	.76	.210

J

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Mini Ball Valves Series 200 / 608 / 609

Advantages

The Parker Mini-Valve is to be used in confined and hard to reach applications. The Brass extruded body allows for extended service life and is chrome plated as standard. Features of the MV608/609 valves include blowout proof stem, hard chrome plate ball, PTFE seats, viton stem seals, and standard yellow handle. MV200 valve features a black lever handle. This economical ball valve is available in 1/8",1/4", 3/8" and 1/2" sizes.

Applications

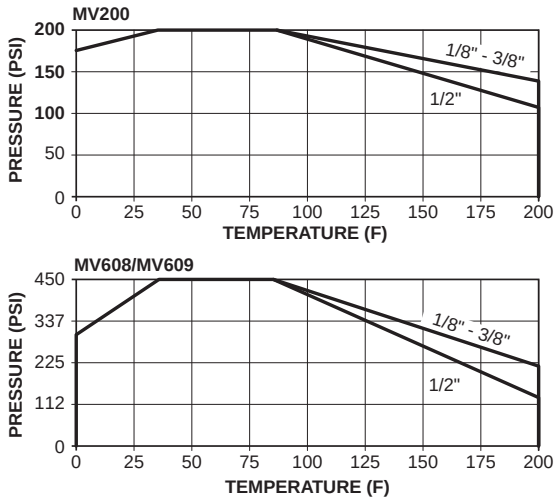
Parker's industrial ball valve product line is intended for general purpose use. Please be aware that ball valves are intended for use in the fully open or closed positions. Depending on application conditions, throttling of the valve may result in premature seal failure and/or inability to turn the valve handle.

For use on water and air service lines on capital equipment and plant design plumbing that require total shutoff capability.

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Working Pressure and Temperatures

These valves are designed and built for use at pressures and temperatures within the stated ranges. Consult the factory for any use outside of these ranges.



Operating Instructions

Quarter turn is "ON" or "OFF".
(Provides Positive stop action for full shutoff.)

Style	Type	Size
MV	608	2
	609	
Style	MV – Mini Valve	
Type	608 – Male / Female	
	609 – Female / Female	
Handle Color	MV200 Features Black Lever Handle MV608, MV609 Features Yellow Wedge Lever Handle	
Size	2 - 1/8"	
	4 - 1/4"	
	6 - 3/8	
	8 - 1/2	

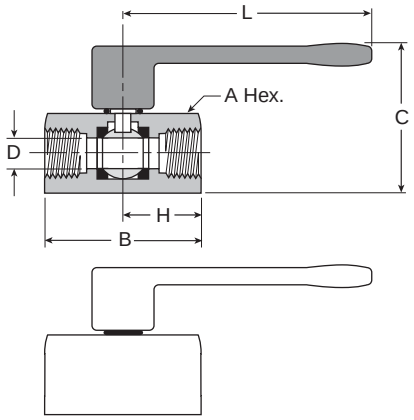
Style	Type	Size
MV	200	2
Style	MV – Mini Valve	
Type	200 – Female / Female Lever Handle	
Size	2 - 1/8"	
	4 - 1/4"	
	6 - 3/8	
	8 - 1/2	

Flow Data

Valve Size	MV200 Cv	MV608 Cv	MV609 Cv
1/8	1.3	1.2	1.4
1/4	4.0	5.8	4.3
3/8	3.7	3.9	3.6
1/2	5.8	5.6	6.0

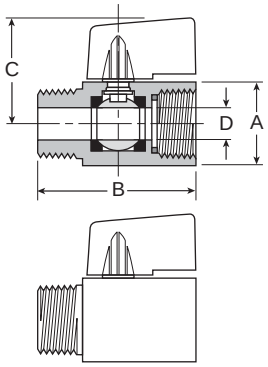
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MV200 Female Pipe Ends, Lever Handle, Mini Ball Valve



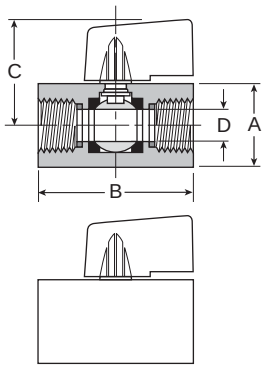
Part No.	Pipe Thread	A Hex.	B	C	H	L	Flow Dia. D
MV200-2	1/8	.83	1.71	1.20	.91	2.83	.31
MV200-4	1/4	.83	1.71	1.20	.91	2.83	.31
MV200-6	3/8	.83	1.71	1.20	.91	2.83	.31
MV200-8	1/2	.98	2.11	1.28	1.10	2.83	.39

MV608 Male-Female Pipe Ends, Compact Handle, Mini Ball Valve



Part No.	Pipe Thread	A Hex.	B	C	Flow Dia. D
MV608-2	1/8	.83	1.72	1.12	.240
MV608-4	1/4	.83	1.72	1.12	.300
MV608-6	3/8	.83	1.72	1.22	.315
MV608-8	1/2	.98	2.11	1.20	.380

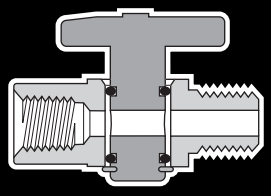
MV609 Female Pipe Ends, Compact Handle, Mini Ball Valve

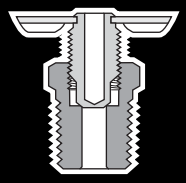


Part No.	Pipe Thread	A Hex.	B	C	Flow Dia. D
MV609-2	1/8	.83	1.72	1.12	.240
MV609-4	1/4	.83	1.72	1.12	.300
MV609-6	3/8	.83	1.72	1.12	.300
MV609-8	1/2	.98	2.11	1.20	.380
MV609-6-4	3/8 x 1/4	.83	1.72	1.12	.300

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Plug Valves Series PV & Drain Cocks Series DC

Plug Valve Advantages

Compact design features internal nitrile seals and a one-piece extruded brass body, offering compatibility with a wide range of media. The one-piece stem/handle combination is constructed of glass reinforced acetal copolymer. Parker plug valves feature 1/4 turn shutoff allowing for ease of operation. All plug valves are 100% leak tested and are certified to be leak free to one SCCM.

Drain Cock Advantages

Both external-seat and internal-seat drain cocks are manufactured to the highest quality standards. Hand-tightening provides a metal-to-metal seal.

Materials

Extruded Bodies: CA 360

Stem / Handle: Acetal Copolymer

O-Rings: Nitrile (other compounds available)

Stop Pin: 420SS

Spiral Ring: 302SS

Temperature and Working Pressure Ranges

From -40° to +175°F at 250 PSI maximum.

Applications

Manufactured for use with air, water, oil and certain other fluids. Contact factory for special fluid requirements.

Installation Instructions

To assure sealability and reliable performance, the valve must be installed so that the flow media travels in the direction of the arrow on the valve handle.

Nomenclature

Part numbers are constructed from symbols that identify the style and size of the fitting. The first series of numbers and letters identifies the style and type fitting. The second series of numbers describes the size.

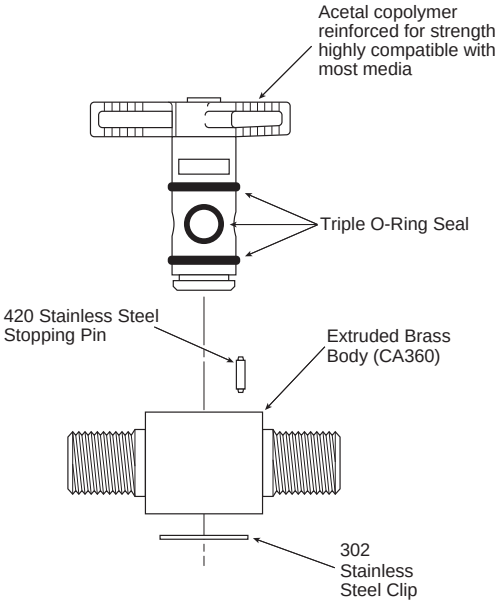
Example: PV 607 2

Plug Valve
Male to Male
1/8" (2/16) Male

Example: DC 602 2

Drain Cock
Internal Seal
1/8" (2/16) Male

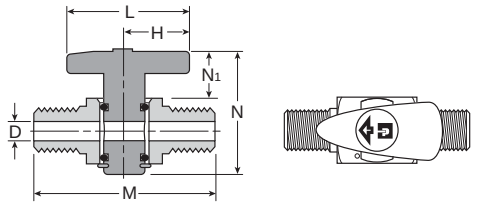
Plug Valve Features



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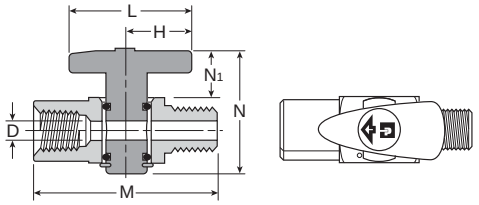
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PV607 Male Pipe to Male Pipe Plug Valve



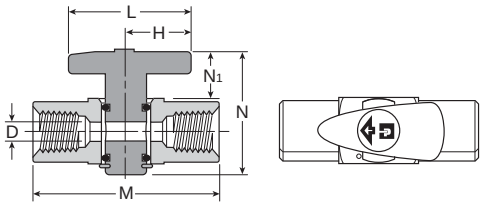
Part No.	Pipe Thread	H	L	M	N	N1	Flow Dia. D
PV607-2	1/8	0.67	1.34	1.66	1.38	0.51	0.200
PV607-4	1/4	0.67	1.34	2.02	1.38	0.51	0.200

PV608 Female Pipe to Male Pipe Plug Valve



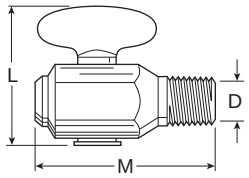
Part No.	Pipe Thread	H	L	M	N	N1	Flow Dia. D
PV608-2	1/8	0.67	1.34	1.67	1.38	0.51	0.200
PV608-4	1/4	0.67	1.34	2.06	1.38	0.51	0.200

PV609 Female Pipe to Female Pipe Plug Valve



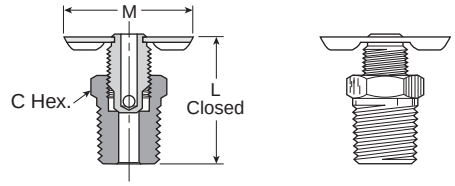
Part No.	Pipe Thread	H	L	M	N	N1	Flow Dia. D
PV609-2	1/8	0.67	1.34	1.68	1.38	0.51	0.200
PV609-4	1/4	0.67	1.34	2.10	1.38	0.51	0.200

DCR601 Drain Cock
(Temperature Range: -30° to +250° F)



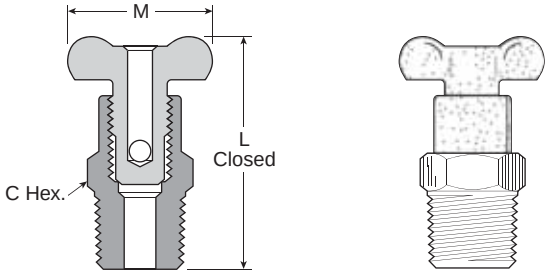
Part No.	Pipe Thread	L	M	Flow Dia. D
DCR601-4	1/4	1.41	1.73	.188

DC602 Internal Seal Drain Cock
(Temperature Range: -65° to +250° F)



Part No.	Pipe Thread	C Hex.	L	M
DC602-2	1/8	13/32	0.92	1.25
DC602-4	1/4	9/16	0.94	1.25

DC603 Drain Cock
(Temperature Range: -65° to +250° F)

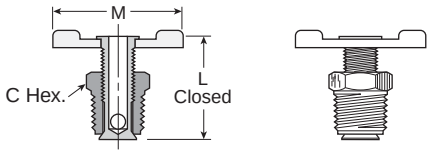


Part No.	Pipe Thread	C Hex.	L	M
DC603-2	1/8	1/2	1.41	1.00
DC603-4	1/4	5/8	1.54	1.16
DC603-6	3/8	11/16	1.63	1.16

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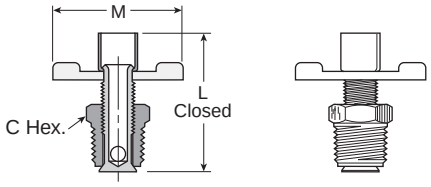
DC604 External Seal Drain Cock
(Temperature Range: -25° to +250° F)



Part No.	Pipe Thread	C Hex.	L	M
DC604-2*	1/8	7/16	0.85	1.25
DC604-4	1/4	9/16	1.00	1.38
DC604-6*	3/8	11/16	1.22	1.68

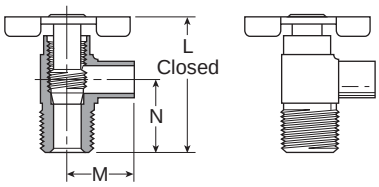
*When assembled handle wings are down facing

DC606 External Seal Drain Cock
(Temperature Range: -65° to +250° F)



Part No.	Pipe Thread	C Hex.	L	M
DC606-4	1/4-18	9/16	1.50	1.38

DC607 Bib Drain Valve
(Temperature Range: -65° to +250° F)



Part No.	Hose Size	Pipe Thread	Flow	L	M	N
DC607-4	3/8	1/4	0.31	1.32	0.67	0.71

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Safety Blow Guns

Section K



Brass Nozzle & Aspirator Blow Guns K2
Vortec FLO-GAIN & Self Regulating Blow Guns..... K3
Pistol Grip Blow Guns K4
Blow Gun Accessories K5
Replacement Parts..... K6

K

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O.S.H.A. Certification — All safety blow guns conform to the requirements of Compressed Air Standards as currently described in the U.S. Bureau of Labor Standards, paragraph 1910.242, when pressurized at the inlet to a maximum of 100 PSIG. Conform to current O.S.H.A. Directive No. 100-1.

Brass Nozzle Blow Guns

Contoured lever or button control both provide a natural, comfortable grip even when used with gloves. Finger guard and hang-up hook for finger protection and quick safe storage. Die cast zinc body, painted finish.



Lever Operated

Part Number	Inlet Port	SCFM Rating*
00475 0010	1/4"	20

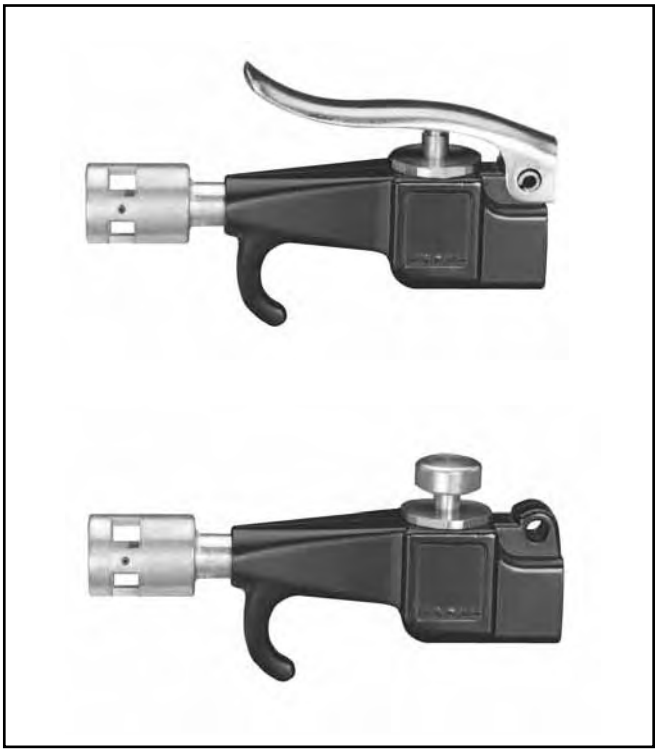
Button Operated

Part Number	Inlet Port	SCFM Rating*
00470 0010	1/4"	20

*Based on 100 PSIG inlet pressure.

Aspirator Blow Guns

Dual air shield provides wide fan of air to reduce chip blow back. Secondary shielding is provided by four radial holes for close in work. Aspirator nozzle gives heavy duty chip blowing performance without exceeding legal limits. Pressure relieves to safe limits if nozzle is blocked. Finger guard and hang-up hook offer desirable finger protection and quick secure storage. Die cast zinc body, painted finish.



Lever Operated

Part Number	Inlet Port	SCFM Rating*
00475 0474	1/4"	74.5

Button Operated

Part Number	Inlet Port	SCFM Rating*
00470 0474	1/4"	74.5

*Based on 100 PSIG inlet pressure.

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Vortec FLO-GAIN Blow Guns

A quiet Vortec FLO-GAIN nozzle is combined with a high performance blow gun. Compressed air attains sonic velocity through an adjustable slot and attaches to the exterior surface of the cone shaped nozzle. Settings are shown on a micrometer dial. Sound level of 80 dBA with 80 PSIG inlet. Finger guard and hang-up hook offers desirable finger protection and quick secure storage.
Die cast zinc body, painted finish.



Lever Operated

Part Number	Inlet Port	SCFM Rating*
00475 0900	1/4"	70+

Button Operated

Part Number	Inlet Port	SCFM Rating*
00470 0900	1/4"	70+

*Based on 100 PSIG inlet pressure.

Self-Regulating Blow Gun

Designed with integral self-regulating pressure reducing valve for automatic shut-off when nozzle is blocked. Prevents air pressure buildup over 30 PSIG in compliance with U.S. Dept. of Labor standards.

Air shield aids in protecting the operator against blow back of flying chips of dirt. Designed to operate at less than 90 dBA to comply with government regulations.
Die cast zinc body, painted finish.

May be used with nozzle extensions on page C5.



Lever Operated

Part Number	Inlet Port	SCFM Rating*
00475 2900	1/4"	10

Performance Data

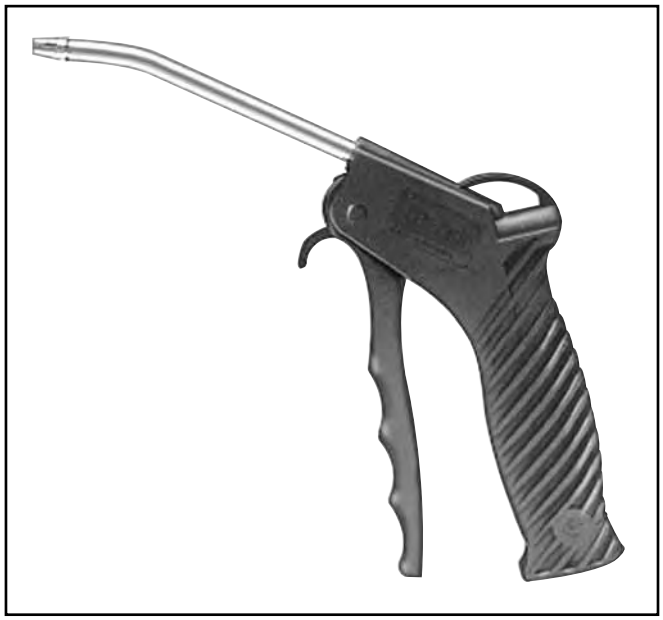
Inlet Pressure	Blocked Pressure	Sound Level
70 PSIG	17.0 PSIG	79 dBA
100 PSIG	21.0 PSIG	83 dBA
175 PSIG	28.0 PSIG	87 dBA

*Based on 100 PSIG inlet pressure.

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Pistol Grip Blow Gun

Pistol grip is easy to aim for quick and efficient cleaning. Ideal for all shop housekeeping purposes. Lightweight and easy to handle. Easy trigger action features instant spring adjustment for controlled air. Get the amount of air where you want it with no restrictions, no cut-offs! Makes for a convenient connection for overhead or under bench floor air use.



Part Number	Inlet Port	Rated Pressure	Temperature Range	OSHA Rated
BG441-NBL	1/4"	175 PSI	120° F	No

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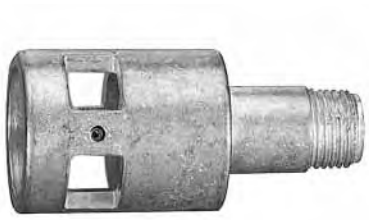
Brass Nozzle
Model No. 00470 7020

General purpose nozzles are supplied as standard on 00470 0010, 00475 0010 and 07184 1000 blow guns. Conform to the requirements of the Williams Steiger Occupational Safety and Health Act of 1970, paragraph 1910.242 when fitted with blow guns pressurized at the inlet to a maximum of 100 PSIG. Conform to O.S.H.A. Directive 100-1.



Aspirator Nozzle
Model No. 00474 1000

Protect against personal injury by relieving pressure if the nozzle end is blocked. Develop exceptionally high flow rates which insure effective cleaning. Conform to the requirements of the Williams Steiger Occupational Safety and Health Act of 1970, paragraphs 1910.95 and 1910.242 when fitted with blow guns pressurized at the inlet to a maximum of 100 PSIG. Conform to O.S.H.A. Directive 100-1.



U.S. Patent No. 3,647,142

FLO-GAIN Nozzle
Model No. W1110 0900

This FLO-GAIN nozzle is the most widely used of the transvector products for industrial blow off. Compressed air attains sonic velocity through an adjustable slot and attaches to the cone shaped exterior surface of the nozzle. Induction and entrainment take place outside the nozzle. Factory slot setting is .008 inch, but is adjustable from closed to .012 inch. A micrometer dial allows adjustment without the use of shims or gauges.

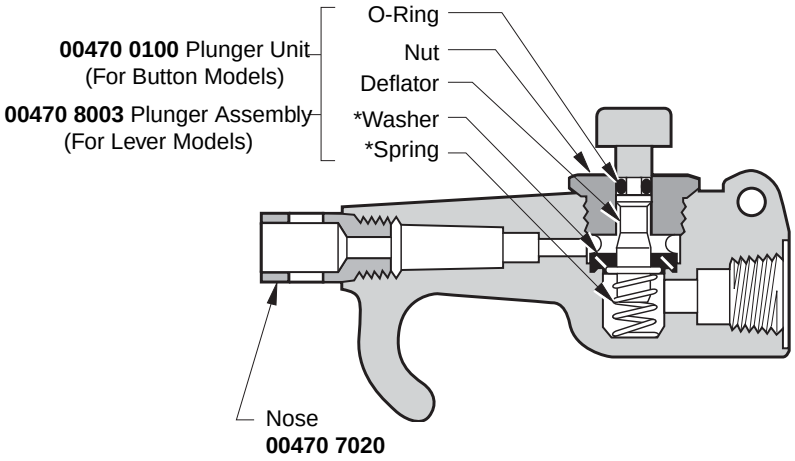
Must be used with filtered air.



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470 and 475 Series Blow Guns



* Contained in Service Kit No. **00470 0090**

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Quick Couplings

Section L



Industrial Interchange Nipples..... L2-L3
Sleevmatic Couplers..... L4-L6
Saflomatic Couplers L7-L8
Economatic Quick Connect Couplings..... L9-L10

L

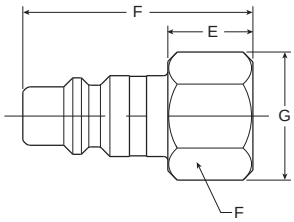
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Industrial interchange nipples conform to MIL-C4109 and are for use with either Sleevmatic or Saflomatic couplers. The industrial interchange nipples are completely interchangeable with similar nipples manufactured by other quick coupling manufacturers conforming to A-A-59439 (formerly known as MIL-C-4109F), ANSI/(NFPA) T3.20.14-1990, or ISO6150-B requirements.

Hardened wear points and solid barstock construction provide long service life. Precision machined surfaces and hardened load-bearing areas resist the effects of mechanical shock in the most rugged applications.

Female Pipe Thread



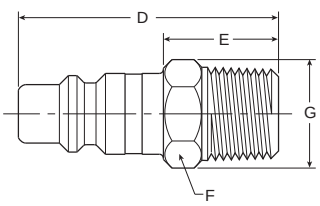


Body Size (Inches)	Part No. Steel	Thread Size	Overall Length D	Exposed Length* E	Hex Size F	Largest Diameter G
1/4	H1C	1/8-27	1.48	0.71	0.50	0.58
1/4	H3C	1/4-18	1.56	0.80	0.62	0.72
1/4	H3C-E	3/8-18	1.60	0.83	0.81	0.94
3/8	H1E	1/4-18	1.60	0.69	0.62	0.72
3/8	H3E	3/8-18	1.69	0.74	0.81	0.94
3/8	H3E-F	1/2-14	1.84	0.90	1.00	1.16
1/2	H1F	3/8-18	2.03	0.79	0.81	0.94
1/2	H3F	1/2-14	2.20	0.96	1.00	1.16
1/2	H3F-G	3/4-14	2.30	1.05	1.25	1.44
3/4	H3G-F	1/2-14	2.22	1.06	1.00	1.16
3/4	H3G	3/4-14	2.18	1.02	1.25	1.44
3/4	H3G-J	1-11½	2.41	1.25	1.63	1.80

* This dimension represents portion of nipple that is exposed when nipple is inserted in the coupler.

Male Pipe Thread



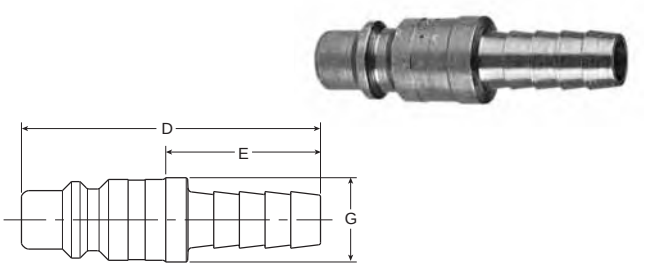


Body Size (Inches)	Part No. Steel	Thread Size	Overall Length D	Exposed Length E	Hex Size F	Largest Diameter G
1/4	H0C	1/8-27	1.68	0.92	0.50	0.58
1/4	H2C	1/4-18	1.66	0.89	0.56	0.65
1/4	H2C-E	3/8-18	1.90	1.14	0.69	0.80
3/8	H00E	1/8-27	1.68	0.73	0.62	0.72
3/8	H0E	1/4-18	1.90	0.95	0.62	0.72
3/8	H2E	3/8-18	1.90	0.95	0.69	0.80
3/8	H2E-F	1/2-14	2.03	1.09	0.88	1.02
1/2	H0F	3/8-18	2.20	0.96	0.69	0.79
1/2	H2F	1/2-14	2.35	1.09	0.88	1.01
1/2	H2F-G	3/4-14	2.40	1.16	1.06	1.22
3/4	H2G-F	1/2-14	2.32	1.16	1.00	1.16
3/4	H2G	3/4-14	2.28	1.12	1.06	1.22
3/4	H2G-J	1-11½	2.56	1.40	1.31	1.52

* This dimension represents portion of nipple that is exposed when nipple is inserted in the coupler.

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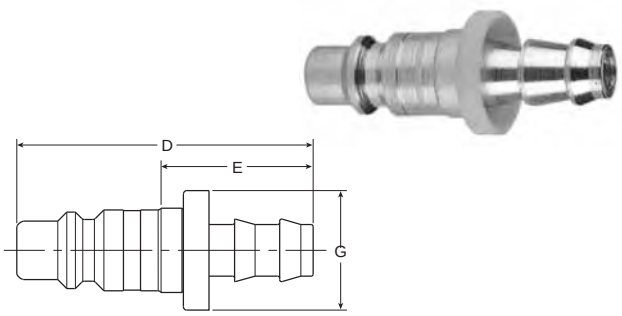
Standard Hose Barb



Body Size (Inches)	Part No. Steel	Hose I.D.	Overall Length D	Exposed Length* E	Largest Diameter G
1/4	H8C	1/4	1.72	0.95	0.46
1/4	H8C-D	5/16	1.96	1.20	0.50
1/4	H9C	3/8	1.96	1.20	0.50
3/8	H5E	3/8	1.85	0.90	0.59
3/8	H6E	1/2	2.09	1.14	0.68
1/2	H4F	3/8	2.36	1.12	0.66
1/2	H5F	1/2	2.36	1.12	0.66
1/2	H5F-G	3/4	2.95	1.71	0.87
3/4	H5G-F	1/2	2.47	1.31	0.93
3/4	H5G	3/4	3.00	1.84	0.93
3/4	H5G-J	1	3.24	2.08	1.24

* This dimension represents portion of nipple that is exposed when nipple is inserted in coupler.

Push-Lok Hose Barb**



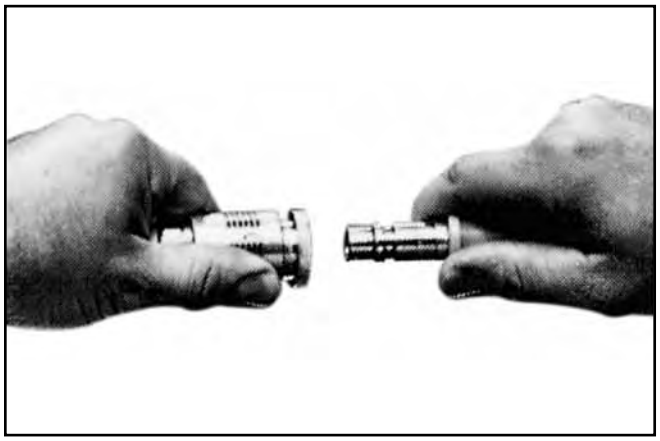
Body Size (Inches)	Part No. Steel	Hose I.D.	Overall Length D	Exposed Length* E	Largest Diameter G
1/4	H8CP	1/4	1.93	1.16	0.69
1/4	H9CP	3/8	2.08	1.31	0.86
3/8	H4EP	1/4	2.02	1.08	0.69
3/8	H5EP	3/8	2.17	1.23	0.88
3/8	H6EP	1/2	2.31	1.37	0.97
1/2	H4FP	3/8	2.52	1.27	0.88
1/2	H5FP	1/2	2.66	1.42	0.97
1/2	H6FP	1/2	2.95	1.71	1.14

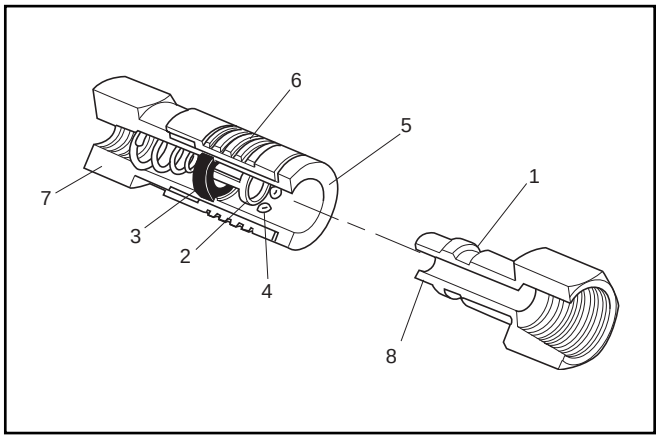
* This dimension represents portion of nipple that is exposed when nipple is inserted in coupler.

** Push-Lok hose barbs are designed for use with a push-lok hose and do not require clamps.

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Operation

Sleeve type couplings are widely used to connect air and low-pressure fluid hose lines.

Their compact and economical design uses a ball locking mechanism consisting of captive steel balls that engage the locking groove on the mating nipple. As pictured, the sliding spring loaded sleeve on the coupler must be manually retracted in order to connect or disconnect the nipple. It is easy to do, but two hands are normally required.

Common applications include compressed air, water, grease, paint, limited vacuum and limited gases.

Features

1. Hardened wear points and solid barstock construction provide long life for these quality couplings. Precision machined surfaces resist the effects of mechanical shocks, even in rugged use.
2. Tubular valve with large flow passages delivers high air flows with minimal pressure drop for efficient performance.
3. Molded seals with high quality valve seats form a bubble tight seal for reliable sealing within rated working pressures. The tubular valve minimizes wear on the seal and prolongs seal life.
4. Ball locking mechanism with large numbers of steel or stainless steel locking balls improves resistance to wear, insures positive connections and provides accurate alignment. The ball locking also allows swiveling action that reduces hose torque.
5. Sleeve guard resists accidental disconnection by allowing the coupling to ride over obstructions without the sleeve being accidentally retracted. It also contributes to greater strength.
6. Knurling and grooves on sleeve provide gripping surfaces for ease of operation.
7. Wide range of sizes, materials and end terminations are available. Sleeve type quick couplings are offered with male pipe, female pipe, push-lok hose barb and standard hose barb ends. Materials offered are Nitrile, Ethylene, Propylene and Fluorocarbon for seals and brass or steel for metals.
8. Interchangeability. Sleevmatic couplers are used with industrial interchange nipples conforming to MIL-C4109.

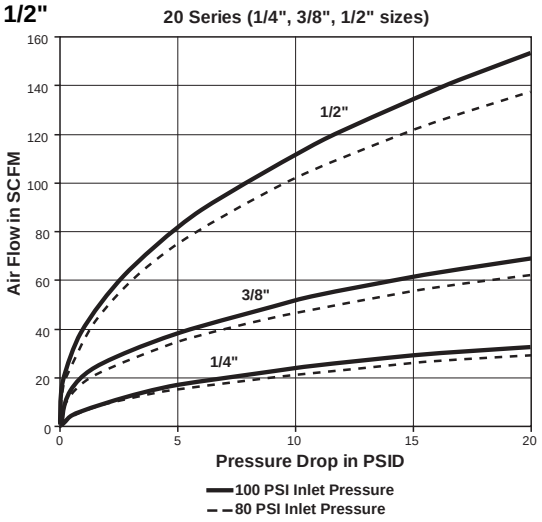
Specifications

	Body Size		
	1/4	**3/8**	**1/2**
Rated Pressure (psi)	300	300	300
Temperature Range			
Nitrile	-40°F to 250°F		
Ethylene Propylene	-65°F to 400°F		
Fluorocarbon	-30°F to 400°F		
Locking Device	4 Balls	8 Balls	8 Balls
Vacuum Data (inches Hg)*			
Disconnected (coupler only)	Not recommended		
Connected	27.4	27.4	27.4

* Couplings for vacuum service should be 100% tested – an extra cost service. Consult factory.

Performance

Sleevmatic
1/4", 3/8", 1/2"

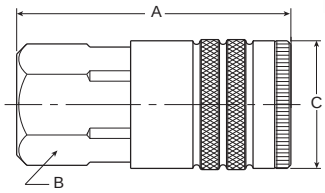


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Female Pipe Thread

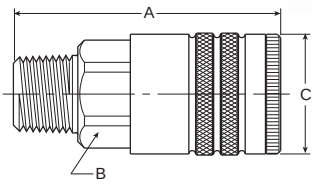




Body Size (Inches)	Part No. Brass	Part No. Steel	Thread Size	Overall Length A	Hex Size B	Largest Diameter C
1/4	B23A	—	1/8-27	1.83	0.75	0.90
1/4	B23	—	1/4-18	1.83	0.75	0.90
1/4	B23E	—	3/8-18	1.95	0.81	0.94
3/8	—	25C	1/4-18	2.22	0.88	1.06
3/8	—	25	3/8-18	2.28	0.88	1.06
3/8	—	25F	1/2-14	2.55	1.00	1.16
1/2	—	17E	3/8-18	2.74	1.00	1.19
1/2	—	17	1/2-14	2.96	1.00	1.19
1/2	—	17G	3/4-14	3.19	1.25	1.44

Male Pipe Thread





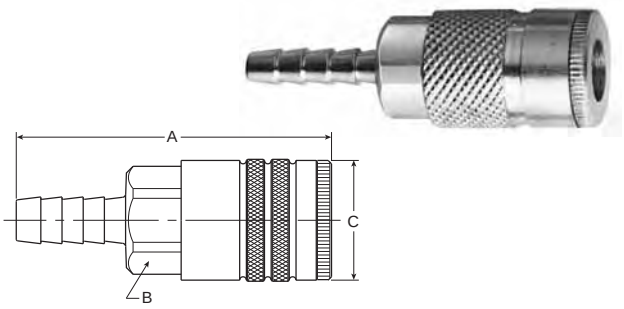
Body Size (Inches)	Part No. Brass	Part No. Steel	Thread Size	Overall Length A	Hex Size B	Largest Diameter C
1/4	B22A	—	1/8-27	1.89	0.75	0.90
1/4	B22	—	1/4-18	2.05	0.75	0.90
1/4	B22E	—	3/8-18	2.08	0.75	0.90
3/8	—	24C	1/4-18	2.36	0.88	1.06
3/8	—	24	3/8-18	2.39	0.88	1.06
3/8	—	24F	1/2-14	2.55	0.88	1.06
1/2	—	16E	3/8-18	2.93	1.00	1.19
1/2	—	16	1/2-14	3.08	1.00	1.19
1/2	—	16G	3/4-14	3.21	1.13	1.30

NOTE: To indicate Fluorocarbon seals, add the letter Y as a suffix to the catalog number of the coupler. To indicate Ethylene Propylene seals, add the letter W as a suffix to the catalog number of the coupler.
Example: B23AY or B23AW

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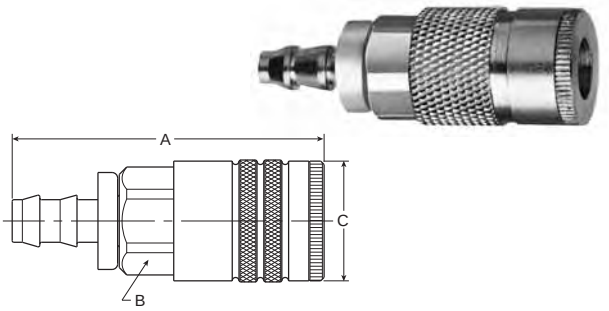
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Standard Hose Barb



Body Size (Inches)	Part No. Brass	Part No. Steel	Hose I.D.	Overall Length A	Hex Size B	Largest Diameter C
1/4	B20-3B	—	1/4	2.49	0.75	0.90
1/4	B20-4B	—	5/16	2.49	0.75	0.90
1/4	B20-5B	—	3/8	2.49	0.75	0.90
3/8	—	24-5B	3/8	2.86	0.88	1.06
3/8	—	24-6B	1/2	3.08	0.88	1.06
1/2	—	16-5B	3/8	3.37	1.00	1.19
1/2	—	16-6B	1/2	3.62	1.00	1.19
1/2	—	16-7B	3/4	3.96	1.00	1.19

Push-Lok Hose Barb*



Body Size (Inches)	Part No. Brass	Part No. Steel	Hose I.D.	Overall Length A	Hex Size B	Largest Diameter C
1/4	B20-3BP	—	1/4	2.32	0.75	0.90
1/4	B20-5BP	—	3/8	2.47	0.75	0.90
3/8	—	24-5BP	3/8	2.88	0.88	1.06
1/2	—	16-5BP	3/8	3.35	1.00	1.19
1/2	—	16-6BP	1/2	3.46	1.00	1.19

* Push-Lok hose barbsd are designed for use with push-lok hose and do not require clamps.

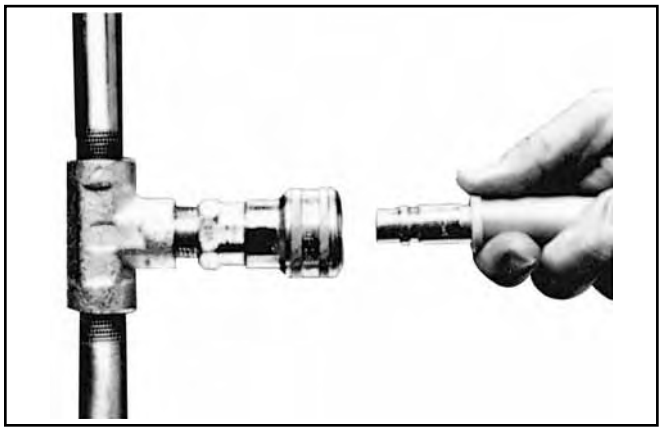
NOTE: To indicate Fluorocarbon seals, add the letter Y as a suffix to the catalog number of the coupler. To indicate Ethylene Propylene seals, add the letter W as a suffix to the catalog number of the coupler.
Example: B20-3BY or B20-3BW

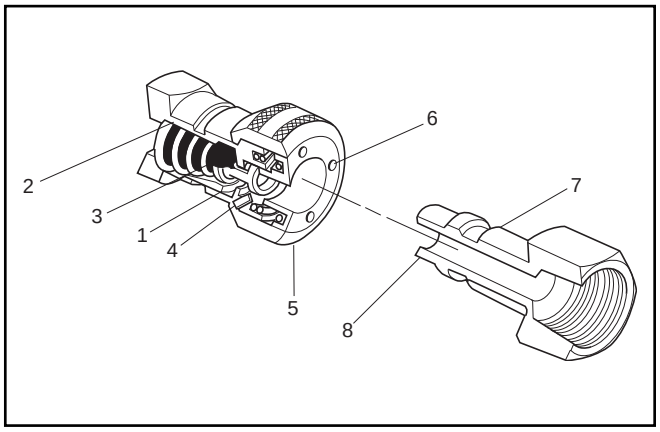
Repair Kits

Body Size	Nitrile	Fluorocarbon	Ethylene Propylene
1/4	21K	21KY	21KW
3/8	14K	—	14KW
1/2	16K	16KY	16KW

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Operation

Push type couplings feature one-handed “automatic” connection by pushing the nipple into the coupler – provided the coupler half is firmly mounted.

The locking mechanism of Saflomatic push type couplers consists of pawls or pins which act directly on the sleeve, thereby causing the sleeve to automatically retract when the mating nipple is inserted. The sleeve must be manually retracted in order to remove the nipple.

Saflomatic couplings are push type “single shut off” couplings.

Common applications include compressed air, water, grease, paint, limited vacuum and limited gas.

Features

1. Saflomatic tubular valves with their large flow windows deliver high air flow with minimum pressure drop – for efficient performance of air tools and other actuators. The tubular valve also provides 360 degree seal support to prevent cold flow and bore constriction, thereby extending seal life.
2. Tapered flow recesses in the valve body provide maximum flow capability.
3. Precision molded seals with high quality valve seats for a bubble tight seal that assures reliable sealing within rated working pressures. The Saflomatic design with its 360° seal support gives maximum seal retention.
4. Locking pawls are of hardened stainless steel for a durable locking mechanism that provides good alignment and sideload resistance.
5. Push-to-connect design permits one-handed connection when the coupler half is rigidly mounted.
6. Back pressure vent holes allow easier connections especially with liquids.
7. Hardened wear points and solid barstock construction provide long life for these quality couplings. Precision machined surfaces resist the effects of mechanical shocks, even in rugged use.
8. Interchangeability. Saflomatic couplers are used with industrial interchange nipples conforming to MIL-C4109.

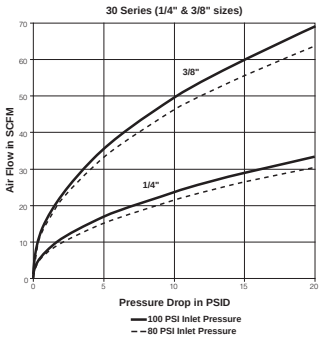
Specifications

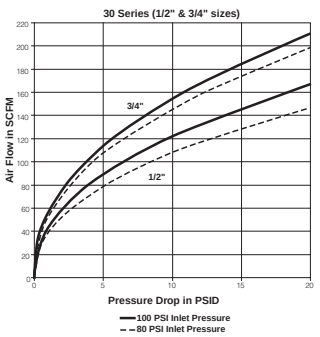
	Body Size			
	1/4	**3/8**	**1/2**	**3/4**
Rated Pressure (psi)	300	300	300	300
Temperature Range				
Nitrile	-40°F to 250°F			
Ethylene Propylene	-65°F to 400°F			
Fluorocarbon	-30°F to 400°F			
Locking Device	3 pawls	4 pawls	5 pawls	6 pawls
Vacuum Data (inches Hg)*				
Disconnected (coupler only)	Not recommended			
Connected	27.4	27.4	27.4	27.4

* Couplings for vacuum service should be 100% tested – an extra cost service. Consult factory.

Performance

Saflomatic
1/4" to 3/4"

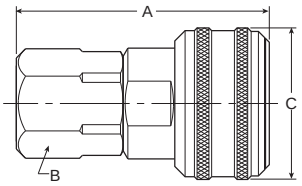




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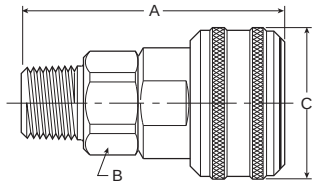
Female Pipe Thread





Body Size (Inches)	Part No. Brass	Thread Size	Overall Length A	Hex Size B	Largest Diameter C
1/4	B33A	1/8-27	1.96	0.75	1.20
1/4	B33	1/4-18	1.96	0.75	1.20
1/4	B33E	3/8-18	2.03	0.81	1.20
3/8	B35C	1/4-18	2.26	0.88	1.39
3/8	B35	3/8-18	2.33	0.88	1.39
3/8	B35F	1/2-14	2.57	1.00	1.39
1/2	B37E	3/8-18	2.76	1.00	1.52
1/2	B37	1/2-14	3.00	1.00	1.52
1/2	B37G	3/4-14	3.12	1.25	1.52
3/4	B39F	1/2-14	2.85	1.31	1.90
3/4	B39	3/4-14	2.99	1.31	1.90
3/4	B39J	1-11½	3.18	1.56	1.90

Male Pipe Thread

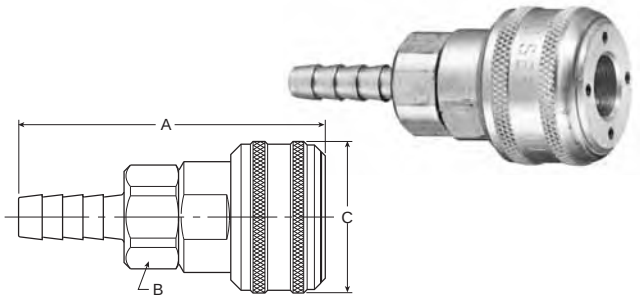




Body Size (Inches)	Part No. Brass	Thread Size	Overall Length A	Hex Size B	Largest Diameter C
1/4	B32A	1/8-27	2.03	0.75	1.20
1/4	B32	1/4-18	2.18	0.75	1.20
1/4	B32E	3/8-18	2.18	0.75	1.20
3/8	B34C	1/4-18	2.38	0.88	1.39
3/8	B34	3/8-18	2.44	0.88	1.39
3/8	B34F	1/2-14	2.57	0.88	1.39
1/2	B36E	3/8-18	2.92	1.00	1.52
1/2	B36	1/2-14	3.09	1.00	1.52
1/2	B36G	3/4-14	3.12	1.13	1.52
3/4	B38	3/4-14	2.95	1.31	1.90
3/4	B38J	1-11½	3.12	1.31	1.90

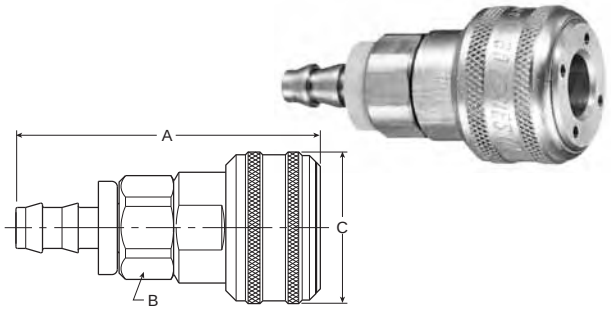
NOTE: To indicate Fluorocarbon seals, add the letter Y as a suffix to the catalog number of the coupler. To indicate Ethylene Propylene seals, add the letter W as a suffix to the catalog number of the coupler.
Example: B33AY or B33AW

Standard Hose Barb



Body Size (Inches)	Part No. Brass	Hose I.D.	Overall Length A	Hex Size B	Largest Diameter C
1/4	B30-3B	1/4	2.62	0.75	1.20
1/4	B30-4B	5/16	2.62	0.75	1.20
1/4	B30-5B	3/8	2.62	0.75	1.20
3/8	B34-5B	3/8	2.85	0.88	1.39
3/8	B34-6B	1/2	2.85	0.88	1.39
1/2	B36-6B	1/2	3.33	1.00	1.52
1/2	B36-7B	3/4	3.86	1.00	1.52
3/4	B38-7B	3/4	3.69	1.31	1.90
3/4	B38-8B	1	3.93	1.31	1.90

Push-Lok Hose Barb*



Body Size (Inches)	Part No. Brass	Hose I.D.	Overall Length A	Hex Size B	Largest Diameter C
1/4	B30-3BP	1/4	2.45	0.75	1.20
1/4	B30-5BP	3/8	2.60	0.75	1.20
3/8	B34-5BP	3/8	2.82	0.88	1.39
1/2	B36-6BP	1/2	3.46	1.00	1.52

* Push-Lok hose barbs are designed for use with push-lok hose and do not require clamps.

NOTE: To indicate Fluorocarbon seals, add the letter Y as a suffix to the catalog number of the coupler.
Example: B30-3BY

Repair Kits

Body Size	Nitrile	Fluorocarbon	Ethylene Propylene
1/4	21K	21KY	21KW
3/8	14K	14KY	14KW
1/2	16K	16KY	16KW
3/4	38K	38KY	38KW

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Description

Economatic couplings feature the tubular valve in a coupler body that interchanges with ARO 210 and similar design couplers and nipples. Economatic couplings are available only in 1/4" body size, but include 3/8" thread size. Economatic couplings have brass bodies with steel sleeves and valves for durability. Standard seal material is Nitrile.

Specifications

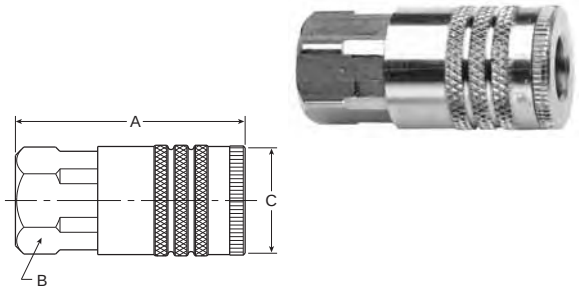
Body Size: 1/4"

Rated Pressure: 300 psi

Temperature Range (Standard Seals): -40°F to 250°F

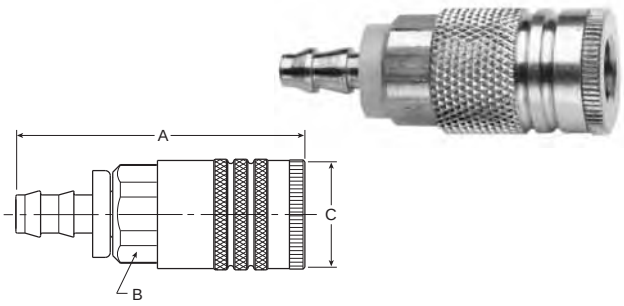
Locking Device: 4 balls

Couplers Female Pipe Thread



Body Size (Inches)	Part No. Brass	Thread Size	Overall Length A	Hex Size B	Largest Diameter C
1/4	B53	1/4-18 NPTF	1.83	0.75	0.90
1/4	B53E	3/8-18 NPTF	1.95	0.81	0.94

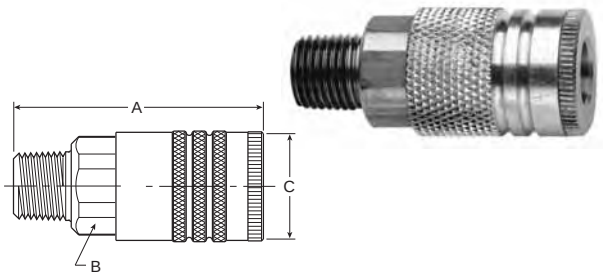
Couplers Push-Lok Hose Barb*



Body Size (Inches)	Part No. Brass	Hose I.D.	Overall Length A	Hex Size B	Largest Diameter C
1/4	B50-03BP	1/4	2.32	0.75	0.90
1/4	B50-05BP	3/8	2.47	0.75	0.90

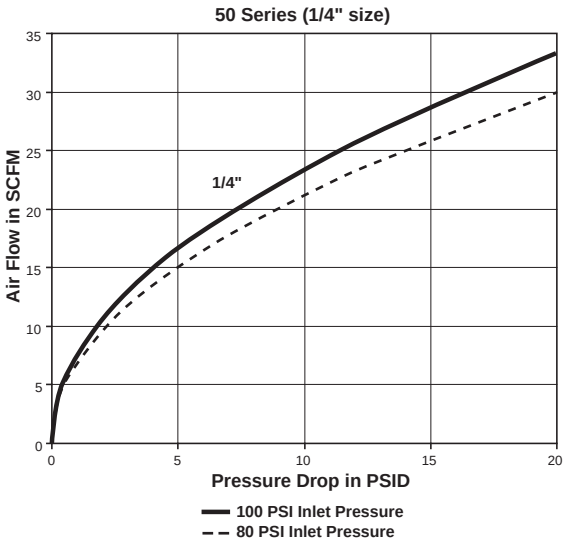
* Push-Lok hose barbs are designed for use with push-lok hose and do not require clamps.

Couplers Male Pipe Thread



Body Size (Inches)	Part No. Brass	Thread Size	Overall Length A	Hex Size B	Largest Diameter C
1/4	B52	1/4-18	2.05	0.75	0.90
1/4	B52E	3/8-18	2.08	0.75	0.90

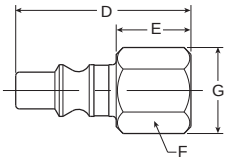
Flow Chart



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Nipples
Female Pipe Thread

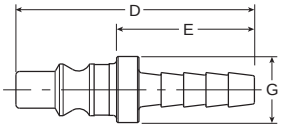




Body Size (Inches)	Part No. Steel	Thread Size	Overall Length D	Exposed Length* E	Hex Size F	Largest Diameter G
1/4	A3C	1/4-18	1.47	0.66	0.62	0.72

* This dimension represents portion of nipple that is exposed when nipple is inserted in coupler.

Nipples
Standard Hose Barb

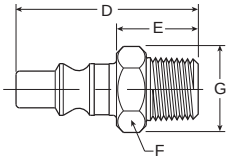




Body Size (Inches)	Part No. Steel	Hose I.D.	Overall Length D	Exposed Length* E	Largest Diameter G
1/4	A8C	1/4	1.63	0.85	0.43

* This dimension represents portion of nipple that is exposed when nipple is inserted in coupler.

Nipples
Male Pipe Thread

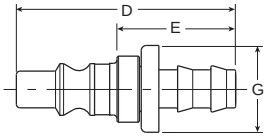




Body Size (Inches)	Part No. Steel	Thread Size	Overall Length D	Exposed Length* E	Hex Size F	Largest Diameter G
1/4	A2C	1/4-18	1.62	0.82	0.56	0.65

* This dimension represents portion of nipple that is exposed when nipple is inserted in coupler.

Nipples
Push-Lok Hose Barb**





Body Size (Inches)	Part No. Steel	Hose I.D.	Overall Length D	Exposed Length* E	Largest Diameter G
1/4	A8CP	1/4	1.65	0.87	0.43

* This dimension represents portion of nipple that is exposed when nipple is inserted in coupler.

** Push-Lok barbs are designed for use with push-lok hose and do not require clamps.

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Fittings & Hose

Section M



Push-on Hose Fittings

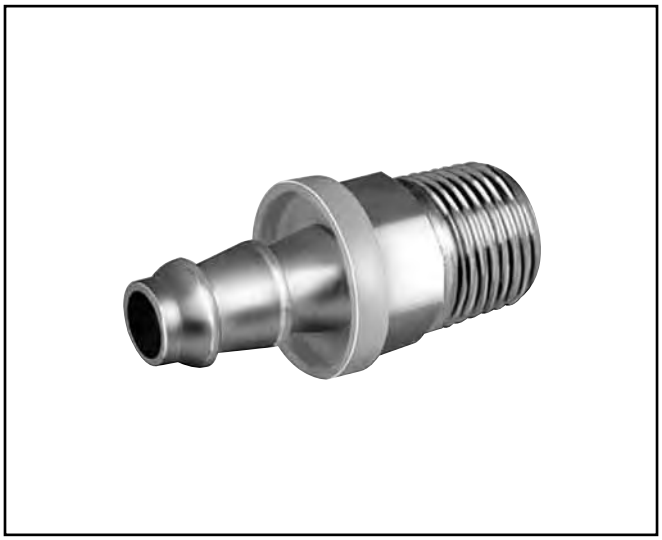
Basic Features M2

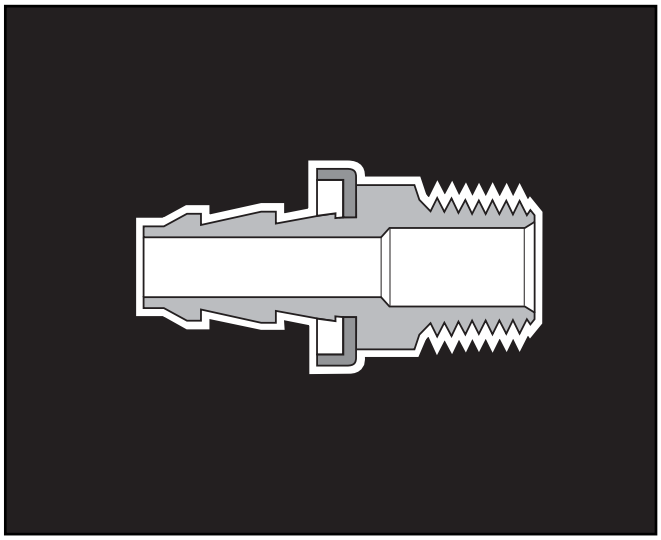
Part Numbers & Dimensions M3-M5

General Purpose Hose M6

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Advantages
Push-on Hose Fittings are machined from the highest quality brass or stainless steel. The barbs are speci cally engineered to work in conjunction with the I.D. and braid angle of Push-on Hose, ensuring a tight connection **without clamps.**

Assembly
Push-on Hose Fittings are designed only for use with Push-on Hose. Do not use with any other style or manufacturer of hose.

Assembly Instructions:
1. Cut hose cleanly and squarely to length.
2. Lubricate hose I.D. and barbs with light oil or soapy water.
3. Push the hose onto the tting until it bottoms against the yellow stop ring. This ensures that all of the barbs are engaged with the hose and will also help keep the end of the hose from fraying.
4. ⚠ **CAUTION: Use of clamps may damage sealing integrity of Hose and Fitting Assembly.**

Temperature Range
-40°F to 180°F (-40°C to 82°C)

Limited by media through hose assembly.

Pressure Range
Limited by hose I.D.

Nomenclature
Part numbers are constructed from symbols that identify the style, size and material of the tting.

Example:

301 82 – 4 – 4 B

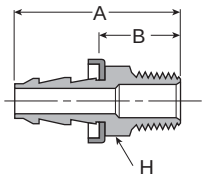
- 301 — Male Connector
- 82 — Push-on Series
- 4 — Pipe Thread Size (4/16) 1/4" Pipe
- 4 — Hose I.D. Size (4/16) 1/4" I.D.
- B — Brass Material (Blank Steel)

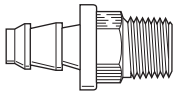
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30182 Push-on Hose Barb to Male Pipe

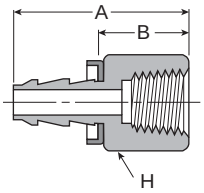
# Part No.	Thread Inch		Hose Size Inch		A Inch	A mm	H Inch	B Inch	B mm
30182-2-4B	1/8 x 27	-2	1/4	-4	1.39	35	7/16	.64	16
30182-4-4B	1/4 x 18	-4	1/4	-4	1.57	40	9/16	.82	21
30182-4-6B	1/4 x 18	-4	3/8	-4	1.78	45	9/16	.88	22
30182-6-6B	3/8 x 18	-6	3/8	-6	1.78	45	11/16	.88	22
30182-8-6B	1/2 x 14	-8	3/8	-6	2.03	52	7/8	1.13	29
30182-6-8B	3/8 x 18	-6	1/2	-8	1.93	49	11/16	.88	22
30182-8-8B	1/2 x 14	-8	1/2	-8	2.18	55	7/8	1.13	29
30182-12-8B	3/4 x 14	-12	1/2	-8	2.21	56	1-1/16	1.16	29
30182-8-10B	1/2 x 14	-8	5/8	-10	2.58	66	7/8	1.13	29
30182-12-12B	3/4 x 14	-12	3/4	-12	2.61	66	1-1/16	1.16	29

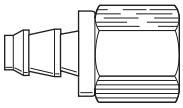




30282 Push-on Hose Barb to Male Pipe

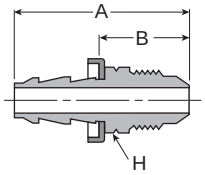
# Part No.	Thread Inch		Hose Size Inch		A Inch	A mm	H Inch	B Inch	B mm
30282-4-4B	1/4 x 18	-4	1/4	-4	1.56	40	3/4	.81	21
30282-6-6B	3/8 x 18	-6	3/8	-6	1.82	46	7/8	.92	23
30282-8-8B	1/2 x 14	-8	1/2	-8	2.16	55	1-1/16	1.11	28

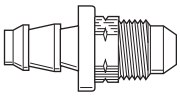




30482 Push-on Hose Barb to Male SAE 45°

# Part No.	Thread Inch			Hose Size Inch		A Inch	A mm	H Inch	B Inch	B mm
30482-4-4B	1/4	7/16 x 20	-4	1/4	-4	1.51	38	7/16	0.76	19
30482-5-4B	5/16	1/2 x 20	-5	1/4	-4	1.61	41	9/16	0.86	22
30482-6-6B	3/8	5/8 x 18	-6	3/8	-6	1.84	47	5/8	0.94	24
30482-8-8B	1/2	3/4 x 16	-8	1/2	-8	2.15	55	3/4	1.1	28



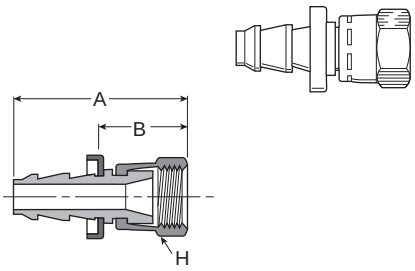


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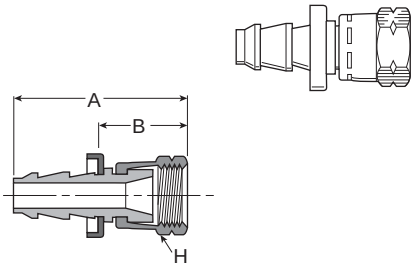
30682 Push-on Hose Barb to Female SAE JIC 37° Swivel

# Part No.	Thread Inch			Hose Size Inch		A Inch	A mm	H Inch	B Inch	B mm
30682-4-4B	1/4	7/16 x 20	-4	1/4	-4	1.52	39	9/16	0.77	20
30682-5-4B	5/16	1/2 x 12	-5	1/4	-4	1.58	40	5/8	0.83	21
30682-6-6B	3/8	9/16 x 18	-6	1/4	-4	1.61	41	11-16	0.86	22
30682-8-6B	1/2	3/4 x 16	-8	3/8	-6	1.87	47	7/8	0.97	25
30682-8-8B	1/2	3/4 x 16	-8	1/2	-8	2.02	51	7/8	0.97	25
30682-10-8B	5/8	7/8 x 14	-10	1/2	-8	2.14	54	1	1.09	28
30682-10-10B	5/8	7/8 x 14	-10	5/8	-10	2.54	65	1	1.09	28
30682-12-12B	3/4	1-1/16 x 12	-12	3/4	-12	2.65	67	1-1/4	1.2	30



30882 Push-on Hose Barb to Female SAE 45° Swivel

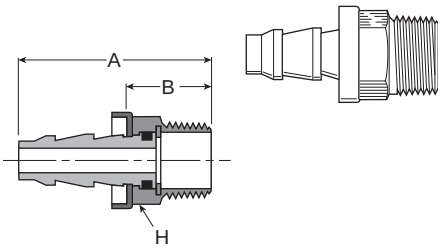
# Part No.	Thread Inch			Hose Size Inch		A Inch	A mm	H Inch	B Inch	B mm
30882-4-4B	1/4	7/16 x 20	-4	1/4	-4	1.52	39	9/16	0.76	19
30882-5-4B	5/16	1/2 x 20	-5	1/4	-4	1.58	40	5/8	0.83	21
30882-6-6B	3/8	5/8 x 18	-6	3/8	-6	1.81	46	3/4	0.91	23
30882-8-6B	1/2	3/4 x 16	-8	3/8	-6	1.87	47	7/8	0.97	25
30882-8-8B	1/2	3/4 x 16	-8	1/2	-8	2.02	51	7/8	0.97	25
30882-10-8B	5/8	7/8 x 14	-10	1/2	-8	2.14	54	1	1.09	28
30882-10-10B	5/8	7/8 x 14	-10	5/8	-10	2.54	65	1	1.09	28
30882-12-12B	3/4	1-1/16 x 14	-12	3/4	-12	2.65	67	1-1/4	1.19	30



31382 Push-on Hose Barb to Male Pipe Swivel

# Part No.	Thread Inch		Hose Size Inch		A Inch	A mm	H Inch	B Inch	B mm
31382-4-4	1/4 x 18	-4	1/4	-4	1.6	41	9/16	.85	22
31382-6-6	3/8 x 18	-6	3/8	-6	1.79	45	11/16	.89	23
31382-8-8*	1/2 x 14	-8	1/2	-8	2.2	56	7/8	1.15	29

* Steel

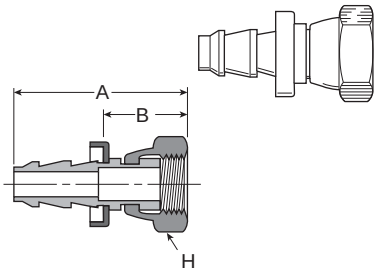


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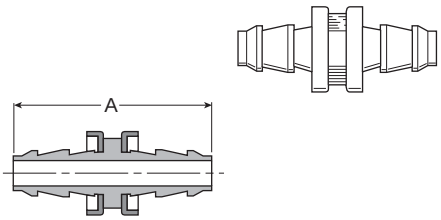
37G82 Push-on Hose Barb to Female Pipe (NPSM) Swivel with Gasket

# Part No.	Gasket	Thread Inch		Hose Size Inch		A Inch	A mm	H Inch	B Inch	B mm
37G82-4-4	07G-4	1/4- 18	-4	1/4	-4	1.55	39	11/16	0.80	20
37G82-4-6	07G-4	1/4- 18	-4	3/8	-6	1.7	43	11/16	0.80	20
37G82-6-6	07G-6	3/8- 18	-6	3/8	-6	1.75	44	7/8	0.85	22
37G82-8-8	07G-8	1/2- 14	-8	1/2	-8	2.07	53	1	1.02	26
37G82-8-10	07G-8	1/2- 14	-8	5/8	-10	2.47	63	1	1.02	26
37G82-12-12	07G-12	3/4- 14	-12	3/4	-12	2.54	65	1-1/4	1.09	28



38282 Push-on Hose Barb Union

# Part No.	Hose Size Inch		A Inch	A mm
38282-4-4B	1/4	-4	1.80	46
38282-6-6B	3/8	-6	2.15	55
38282-8-8B	1/2	-8	2.51	64



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The Push-Lok Plus line is the most versatile general purpose hose available. It can be used in numerous applications where low-pressure media is used.

Features and Benefits

- Widest uid compatability and application range
- Broadest size range (-4 through -16)
- Highest working pressure in all sizes in the industry

Construction

- Inner tube: Synthetic Rubber
- Reinforcement: One Fiber Braid
- Cover: Synthetic Rubber, MSHA Accepted

Temperature

- Petroleum base hydraulic uids, lubricating oils, and antifreeze solutions -40°F to +257°F (-40°C to +125°C)
- Water, water / oil emulsion, and water / glycol uids up to +185°F (+85°C)
- Air up to +158°F (+70°C)

Water Service

Water, water/oil emulsion, and water/glycol hydraulic uids up to +185°F (+85°C). Air up to +158°F (+70°C).

Fitting Recommendations

Use only with Push-on Hose Fittings and Quick Couplers with Push-lock Hose Barb.

Note: Push-Lok hose is recommended for vacuum applications but not for cooling lines in air conditioners and heat pumps, nor for hydraulic applications where extreme pulsations are encountered. Push-Lok is not recommended for any fuel.

Nomenclature

Part numbers are constructed from symbols that identify the style and size of the hose. Numbers identify the hose I.D. in 1/16's of an inch.

Example:

801 – 4 – GRA – RL

- 801 Series
- Size 1/4" I.D. (4/16)
- Color
- Length

Note: 801-10-GRN-RL Not Available

Available Cover Colors

- GRA = gray
- RED = red
- YEL = yellow
- BLU = blue
- GRN = green
- BLK = black

Hose Length

Hose Type	I.D.	Reel Length
801-4	1/4"	600 feet
801-6	3/8"	450 feet
801-8	1/2"	300 feet
801-10	5/8"	250 feet
801-12	3/4"	200 feet
801-16	1"	200 feet

Push-on Hose 801 Push-Lok Plus

#	Hose I.D.		Hose O.D.		Working Pressure		Burst Pressure		Minimum Bend Radius		Weight		Vacuum Rating	
Part No.	Inch	mm	Inch	mm	PSI	MPa	PSI	MPa	Inch	mm	lbs/ft	kg/m	Inches of Hg	kPa
801-4	1/4	6,3	0.50	12,7	350	2.4	1000	6,8	2-1/2	65	0.09	0.13	28	95
801-6	3/8	10	0.63	15,9	350	2.4	1000	6,8	3	75	0.11	0.16	28	95
801-8	1/2	12,5	0.78	19,8	300	2.1	1000	6,8	5	125	0.18	0.27	28	95
801-10	5/8	16	0.91	23,0	300	2.1	1000	6,8	6	150	0.19	0.28	15	51
801-12	3/4	19	1.03	26,2	300	2.1	1000	6,8	7	180	0.24	0.36	15	51
801-16	1	25	1.28	32,6	200	1.4	700	4,8	10	250	0.37	0.55	15	51

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Fittings & Tubing

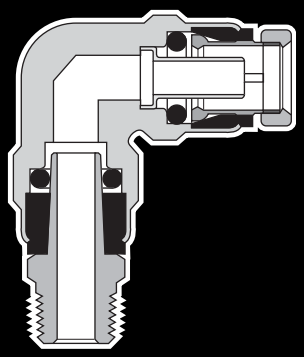
Section N



Prestomatic Fittings N2-N10
Poly-Tite Fittings N11-N19
Prestolok N20-N42
Dubl-Barb® N43-N47
Hose Barb N48-N51
Global Connectors N52-N59
TrueSeal™ N60-N70
Pipe Fittings N71-N77
Brass Metric Adapters N78-N82
FS Hose & Fittings N83-N86
Polyethylene Tubing N87-N88
Nylon Tubing N89-N90
Polyurethane Tubing N91

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Prestomatic Air Brake Push-In Fittings

Advantages

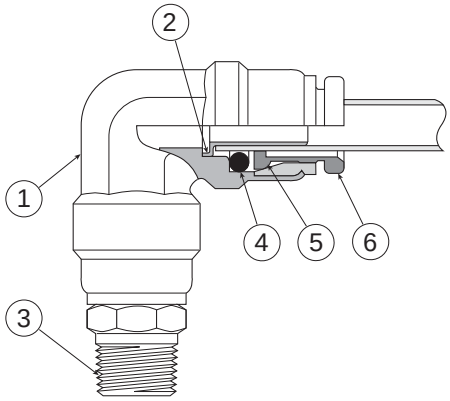
Patented design of sizes 5/32" and above meet SAE J2494 and D.O.T. FMVSS 571.106 air brake performance specifications.. No special tools are needed to assemble. Just bottom the tubing in the fitting body for a positive seal. Stainless steel tube support in sizes 1/4" and above assures maximum flow and performance requirements of SAE J1131. 1/8" Prestomatic† is designed for use in pressure protected air accessory lines that are isolated from the air brake system.

Application

Use with Parker Parflex SAE J844 type A & B nylon tubing. Designed for all D.O.T. truck and trailer applications. Consult the factory with any questions regarding special product applications. Prior to use, all applications should be carefully tested through the range of conditions which may be encountered.

Features

1. All brass body.
2. Stainless steel tube support assures maximum flow and performance characteristics.
3. Elbows and tees are available in swivel or rigid dryseal pipe threads. Swivels are designed for alignment purposes only.
4. Lubricated O-Ring Seal (Buna N) insures a quick, easy and positive seal.
5. Innovative Collet design insures positive grip on tubing.
6. Release Button offers quick and easy disconnections.



Technical Data

- Working pressure from vacuum to 250 PSI.
- Working temperature from -40° F to +200°F
  Note: See tubing manufacturer's recommendations for pressure and temperature limitations.
- Buna N (Nitrile) O-Rings.

Nomenclature

Part numbers are constructed from symbols that identify the style and size of the fitting. The first series of numbers and letters identify the style and type of fitting. The Prestomatic series 1/4" and above has a stainless steel tube support and is designated with a "PMT" suffix. The Prestomatic series in sizes 1/8", 5/32", and 3/16" does not have a tube support and is designated with a "PM" suffix.

Example	**68**	**PMT**	**6**	**4**
Male Connector				
Air Brake Push-in Fitting				
3/8" (6/16) Tube Size				
1/4" (4/16) Pipe Thread				

Special Fittings

Fitting configurations and/or sizes other than those shown in the catalog can be furnished. It is suggested that a print or sketch be submitted with the inquiry. Price and delivery for non-stock items furnished on request for specified quantities.

† U.S. Patent No. 5,683,120

N

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Assembly Instructions

1. Cut tubing squarely–maximum of 15° angle allowable.
- Use of Parker tube cutter PTC-001 is recommended.

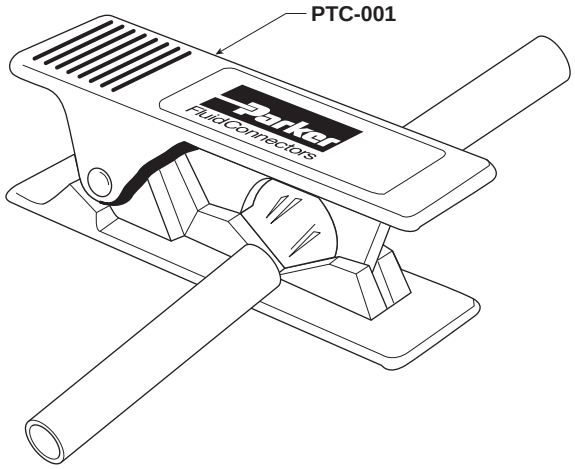
2. Check that port or mating part is clean and free of debris.

3. Insert tubing into fitting until it bottoms.
- Push twice to verify that tubing is inserted past collet and O-Ring.

4. Pull on tubing to verify it is fully inserted.

5. To disassemble, simply press release button, hold against body, and pull tubing out of fitting.

Note: In order to pass hot pull requirements of SAE J1131 a stainless steel tube support must be present in the end of the fitting before final fitting assembly.

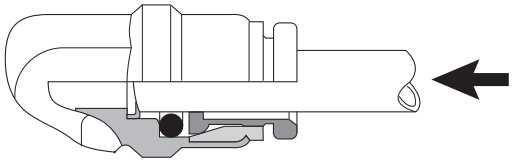


Tubing Nomenclature

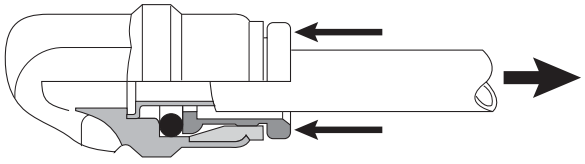
*PFT – 4A – GRN – 1000

Hose or Tubing Size	Color	Length (Feet)
4A	GRN	
6B	BLU	
8B	BLK	
10B	YEL	
	ORG	
	RED	
	Etc.	

** Order from Parker Parflex Division*



Insert Tubing until it Bottoms



Depress Button to remove Tubing

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† U.S. Patent No. 5,683,120

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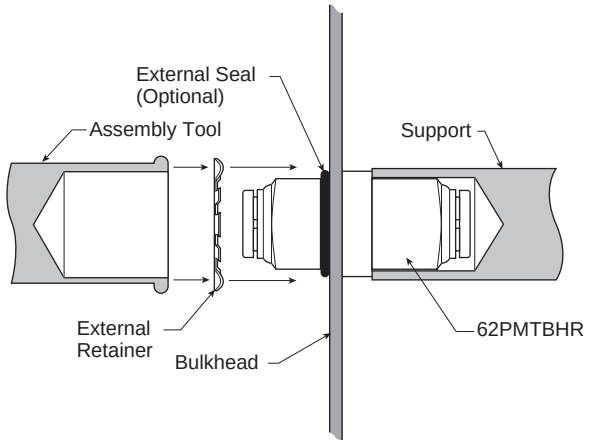
Prestomatic† Retaining Ring Bulkhead Unions

Prestomatic† retaining ring bulkhead unions feature a unique design that provides the user with an economical method to install and assemble a union connection through a bulkhead.

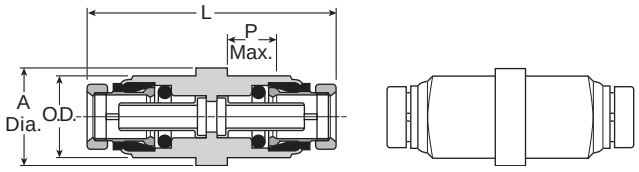
The retaining ring bulkhead unions feature a smaller envelope size than standard bulkhead union connectors and do not require a wrench to mount or assemble in cramped areas.

The external seal feature provides a moisture barrier and can also prevent external contamination from entering into an enclosed area.

To install, simply support the bulkhead union from behind and apply the external seal. Then push the external retainer against the external seal with an assembly tool and you have a reliable bulkhead connection in a confined area.

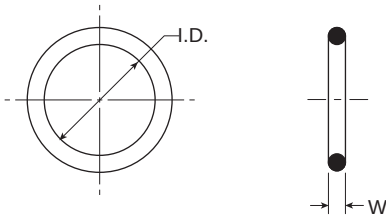


62PMTBHR Retaining Ring Bulkhead



Part No.	Tube Size	O.D.	Rec. Hole Size	P Max.	L	A Dia.
62PMTBHR-4	1/4	0.500	0.512	0.26	1.53	0.625
62PMTBHR-6	3/8	0.750	0.762	0.36	1.92	0.875
62PMTBHR-8	1/2	0.875	0.887	0.43	2.15	1.000
62PMTBHR-10	5/8	1.000	1.012	0.62	2.54	1.250

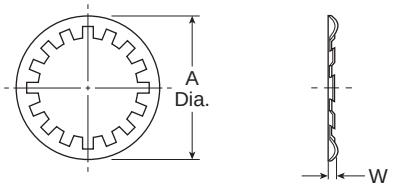
ES* External Seal



Part No.	Tube Size	Bulkhead Union O.D.	A Dia.	W
ES-50	1/4	0.500	0.489	0.07
ES-75	3/8	0.750	0.739	0.07
ES-87	1/2	0.875	0.864	0.07

*Material is Nitrite (Buna N), 70 Durometer

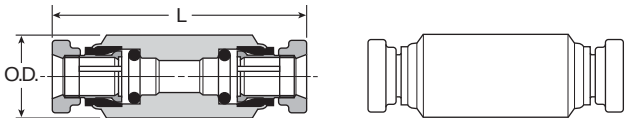
ERHD* External Retainer



Part No.	Tube Size	Bulkhead Union O.D.	A Dia.	W
ERHD-50	1/4	0.500	0.83	0.05
ERHD-75	3/8	0.750	1.08	0.05
ERHD-87	1/2	0.875	1.20	0.05
ERHD-100	5/8	1.000	1.33	0.05

*Material Carbon Spring Steel

62PM Union



Part No.	Tube Size	L	O.D.
62PM-2	1/8	1.60	0.406
62PM-5/32	5/32	1.60	0.406
62PM-3	3/16	1.35	0.440

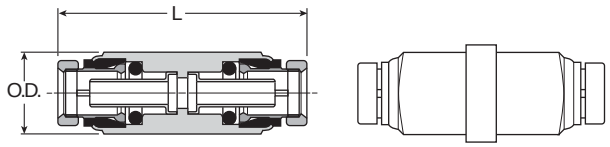
*Material is Nitrite (Buna N), 70 Durometer

N

† U.S. Patent No. 5,683,120

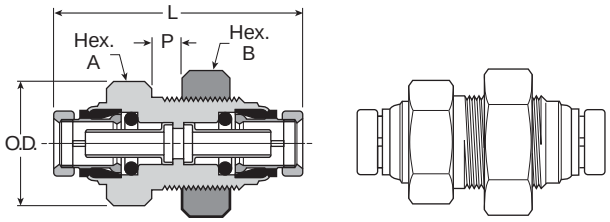
Parker Hannifin Corporation
Pneumatic Division
Richland, Michigan
www.parker.com/pneumatics

62PMT Union



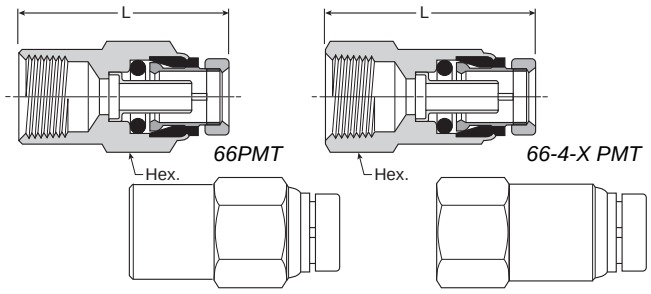
Part No.	Tube Size	L	O.D.
62PMT-4	1/4	1.48	0.50
62PMT-4-2	1/4 - 1/8	1.48	0.50
62PMT-6	3/8	1.87	0.75
62PMT-6-4	3/8 - 1/4	1.68	0.75
62PMT-8	1/2	2.03	0.88
62PMT-10	5/8	2.42	1.00

62PMTBH Bulkhead Union



Part No.	Tube Size	O.D.	L	P Max.	A Hex.	B Hex.	Bulkhead Hole Dia.
62PMTBH-4	1/4	0.56	1.69	0.25	11/16	3/4	9/16
62PMTBH-6	3/8	0.88	1.93	0.44	1-1/16	1-1/16	7/8
62PMTBH-8	1/2	1.00	2.02	0.58	1-1/4	1-1/4	1
62PMTBH-10	5/8	1.12	2.92	0.81	1-1/4	1-3/8	1-1/8

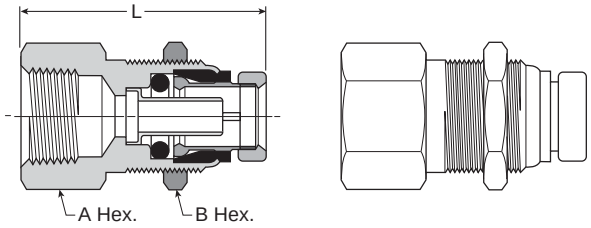
66PMT Female Connector



Part No.	Tube Size	Pipe Thread	L	Hex.
66PMT-4-2	1/4	1/8	1.22	9/16
66PMT-4-4	1/4	1/4	1.43	11/16
66PMT-6-2	3/8	1/8	1.37	3/4
66PMT-6-4	3/8	1/4	1.58	3/4
66PMT-6-6	3/8	3/8	1.62	13/16
66PMT-8-4	1/2	1/4	1.69	7/8
66PMT-8-6	1/2	3/8	1.68	7/8
66PMT-8-8	1/2	1/2	1.91	1

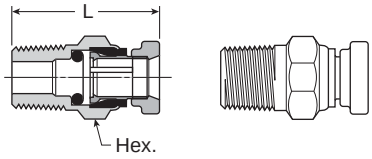
† U.S. Patent No. 5,683,120

66PMTBH Bulkhead Female Connector



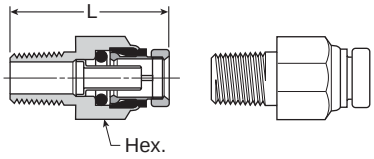
Part No.	Tube Size	Pipe Thread	L	A Hex.	B Hex.	Bulkhead Hole Dia.
66PMTBH-4-4	1/4	1/4	1.62	11/16	3/4	9/16
66PMTBH-6-6	3/8	3/8	1.87	1.06	1.06	7/8
66PMTBH-8-8	1/2	1/2	2.02	1-1/4	1-1/4	1

68PM Male Connector



Part No.	Tube Size	Pipe Thread	L	Hex.
68PM-2-1	1/8	1/16	0.93	3/8
68PM-2-2	1/8	1/8	0.88	7/16
68PM-5/32-1	5/32	1/16	0.95	3/8
68PM-5/32-2	5/32	1/8	0.74	7/16
68PM-5/32-4	5/32	1/4	0.99	9/16
68PM-3-1	3/16	1/16	0.95	7/16
68PM-3-2	3/16	1/8	0.92	7/16
68PM-3-4	3/16	1/4	1.10	9/16

68PMT Male Connector

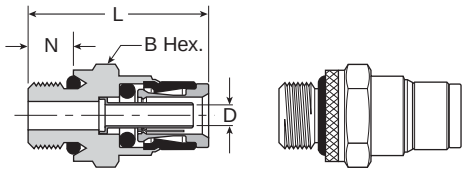


Part No.	Tube Size	Pipe Thread	L	Hex.
68PMT-4-2	1/4	1/8	1.06	1/2
68PMT-4-4	1/4	1/4	1.19	9/16
68PMT-4-6	1/4	3/8	1.27	3/4
68PMT-6-2	3/8	1/8	1.37	3/4
68PMT-6-4	3/8	1/4	1.43	3/4
68PMT-6-6	3/8	3/8	1.33	3/4
68PMT-6-8	3/8	1/2	1.38	7/8
68PMT-8-4	1/2	1/4	1.72	7/8
68PMT-8-6	1/2	3/8	1.52	7/8
68PMT-8-8	1/2	1/2	1.44	7/8
68PMT-10-6	5/8	3/8	1.88	1
68PMT-10-8	5/8	1/2	1.88	1
68PMT-12-8	3/4	1/2	2.03	1-3/16
68PMT-12-12	3/4	3/4	2.03	1-1/8

N

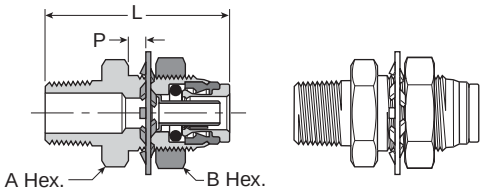
Parker Hannifin Corporation
Pneumatic Division
Richland, Michigan
www.parker.com/pneumatics

68PMT-X-M Male Connector to Metric Adapter



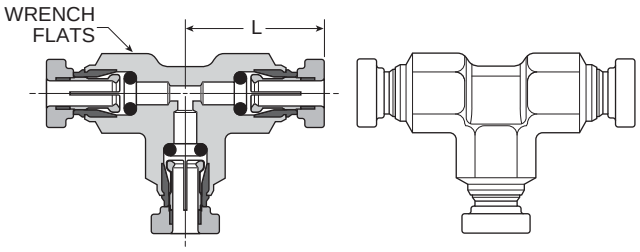
Part No.	Tube Size	Metric Thread	L	B Hex.	N
68PMT-4-M12	1/4	M12x1.5	1.19	11/16	0.29
68PMT-4-M16	1/4	M16x1.5	1.29	7/8	0.39
68PMT-6-M12	3/8	M12x1.5	1.40	3/4	0.29
68PMT-6-M16	3/8	M16x1.5	1.35	7/8	0.39
68PMT-6-M22	3/8	M22x1.5	1.23	1-1/16	0.40
68PMT-8-M12	1/2	M12x1.5	1.45	7/8	0.29
68PMT-8-M16	1/2	M16x1.5	1.52	7/8	0.39
68PMT-8-M22	1/2	M22x1.5	1.31	1-1/16	0.37
68PMT-10-M16	5/8	M16x1.5	1.78	1	0.39

68PMTBH Bulkhead Male Connector



Part No.	Tube Size	Pipe Thread	L	P Max.	A Hex.	B Hex.	Bulkhead Hole Dia.
68PMTBH-6-8	3/8	1/2	2.37	0.33	1-1/4	1-1/4	1
68PMTBH-8-8	1/2	1/2	2.38	0.33	1-1/4	1-1/4	1

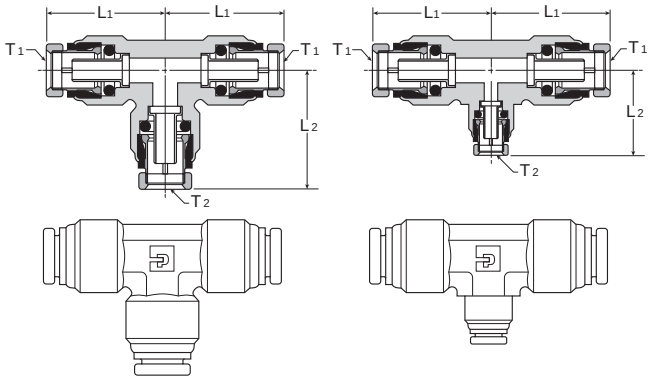
164PM Union Tee



Part No.	Tube Size	L	Wrench Flats
164PM-2	1/8	0.81	0.42
164PM-5/32	5-32	0.71	0.42

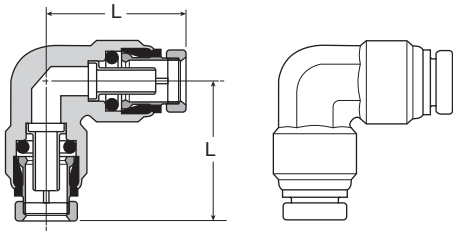
† U.S. Patent No. 5,683,120

164PMT Union Tee



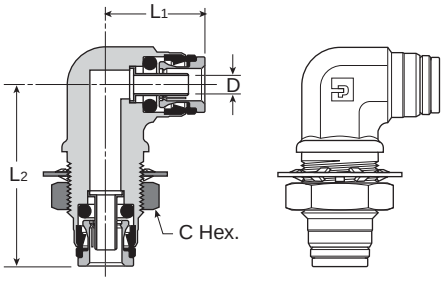
Part No.	Tube 1 Size	Tube 2 Size	L_1	L_2
164PMT-4	1/4	1/4	0.85	0.85
164PMT-6	3/8	3/8	1.21	1.21
164PMT-6-6-5/32	3/8	5/32	1.22	0.85
164PMT-6-6-4	3/8	1/4	1.21	0.93
164PMT-8	1/2	1/2	1.27	1.27
164PMT-10	5/8	5/8	1.63	1.62

165PMT Union Elbow



Part No.	Tube Size	L
165PMT-4	1/4	0.85
165PMT-6	3/8	1.11
165PMT-8	1/2	1.24
165PMT-10	5/8	1.57

165PMTBH Union Bulkhead Elbow

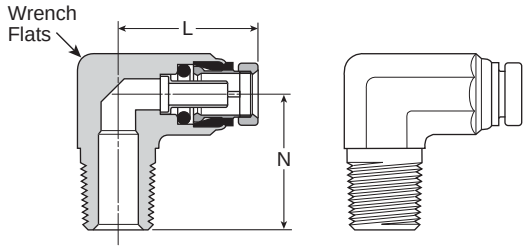


Part No.	Tube Size	L_1	L_2	C Hex.	Flow Dia. D	Bulkhead Hole Dia.
165PMTBH-6-8	1/2	1.29	2.45	1-1/4	0.34	1

N

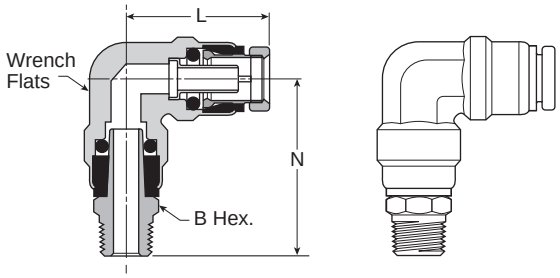
Parker Hannifin Corporation
Pneumatic Division
Richland, Michigan
www.parker.com/pneumatics

169PMNS Male Elbow Non-Swivel



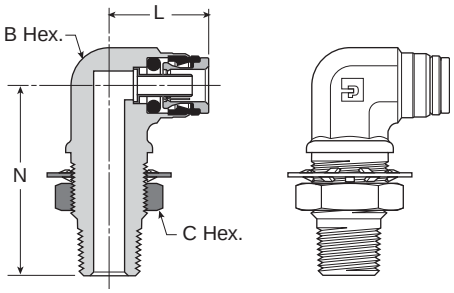
Part No.	Tube Size	Pipe Thread	L	N	Wrench Flats
169PMNS-2-2	1/8	1/8	0.86	0.68	3/8
169PMNS-5/3-2	5-32	1/8	0.88	0.68	3/8
169PMNS-3-2	3/16	1/8	0.75	0.67	3/8
169PMNS-3-4	3/16	1/4	0.74	0.93	1/2

169PMT Male Elbow Swivel 90°



Part No.	Tube Size	Pipe Thread	B Hex.	L	N	Wrench Flats
169PMT-4-2	1/4	1/8	7/16	0.84	1.21	13/32
169PMT-4-4	1/4	1/4	9/16	0.84	1.43	13/32
169PMT-4-6	1/4	3/8	11/16	0.84	1.43	13/32
169PMT-6-2	3/8	1/8	9/16	1.11	1.41	9/16
169PMT-6-4	3/8	1/4	9/16	1.11	1.58	9/16
169PMT-6-6	3/8	3/8	11/16	1.11	1.58	9/16
169PMT-6-8	3/8	1/2	7/8	1.11	1.79	9/16
169PMT-8-4	1/2	1/4	5/8	1.27	1.73	11/16
169PMT-8-6	1/2	3/8	3/4	1.27	1.81	11/16
169PMT-8-8	1/2	1/2	7/8	1.27	1.96	11/16
169PMT-10-6	5/8	3/8	3/4	1.53	2.03	7/8
169PMT-10-8	5/8	1/2	7/8	1.53	2.18	7/8

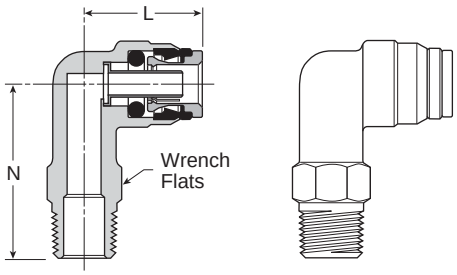
169PMTBH Male Elbow Bulkhead



Part No.	Tube Size	Pipe Thread	L	N	B Hex.	C Hex.	Bulkhead Hole Dia.
169PMTBH-6-8	3/8	1/2	1.19	2.50	1-1/4	7/8	1
169PMTBH-8-8	1/2	1/2	1.29	2.50	1-1/4	7/8	1

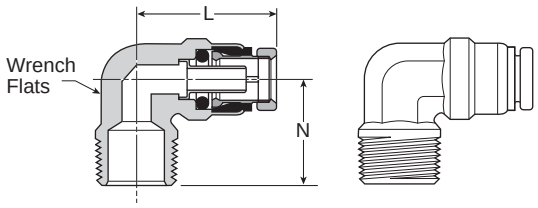
† U.S. Patent No. 5,683,120

169PMTL Male Elbow Long Non-Swivel 90°



Part No.	Tube Size	Pipe Thread	L	N	Wrench Flats
169PMTL-6-4	3/8	1/4	1.06	1.63	9/16
169PMTL-6-6	3/8	3/8	1.19	2.50	7/8
169PMTL-6-8	3/8	1/2	1.19	2.50	7/8
169PMTL-8-8	1/2	3/8	1.22	2.50	7/8
169PMTL-10-8	5/8	3/8	1.46	2.50	7/8

169PMTNS Male Elbow Non-Swivel 90°

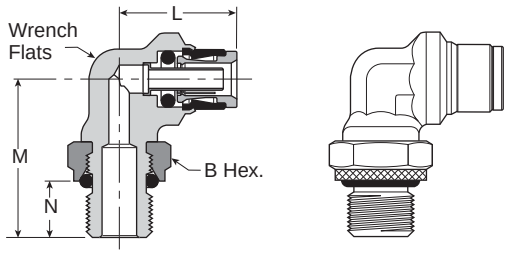


Part No.	Tube Size	Pipe Thread	L	N	Wrench Flats
169PMTNS-4-2	1/4	1/8	0.84	0.72	1/2
169PMTNS-4-4	1/4	1/4	0.84	0.90	1/2
169PMTNS-4-6	1/4	3/8	0.84	1.06	1/2
169PMTNS-6-2	3/8	1/8	1.05	0.75	9/16
169PMTNS-6-4	3/8	1/4	1.05	0.94	9/16
169PMTNS-6-6	3/8	3/8	1.05	0.94	3/4
169PMTNS-6-8	3/8	1/2	1.12	1.26	11/16
169PMTNS-8-4	1/2	1/4	1.17	1.06	11/16
169PMTNS-8-6	1/2	3/8	1.22	1.06	11/16
169PMTNS-8-8	1/2	1/2	1.22	1.26	11/16
169PMTNS-10-6	5/8	3/8	1.46	1.11	7/8
169PMTNS-10-8	5/8	1/2	1.46	1.32	7/8
169PMTNS-12-8	3/4	1/2	1.81	1.44	1

N

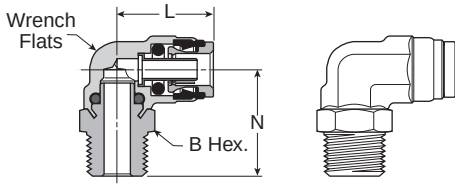
Parker Hannifin Corporation
Pneumatic Division
Richland, Michigan
www.parker.com/pneumatics

169PMTNS-X-M
Male Elbow Non-Swivel to Metric Adapter



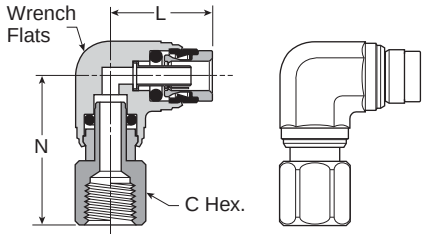
Part No.	Tube Size	Pipe Thread (mm)	L	M	N	Wrench Flats (mm)	B Hex. (mm)
169PMTNS-4-M12	1/4	M12x1.5	0.84	1.11	0.37	10	17
169PMTNS-4-M16	1/4	M16x1.5	0.96	1.27	0.41	11	24
169PMTNS-4-M22	1/4	M22x1.5	1.09	1.53	0.41	16	30
169PMTNS-6-M12	3/8	M12x1.5	1.10	1.15	0.66	16	17
169PMTNS-6-M16	3/8	M16x1.5	1.23	1.27	0.41	19	24
169PMTNS-8-M12	1/2	M12x1.5	1.21	1.31	0.37	16	17
169PMTNS-8-M16	1/2	M16x1.5	1.26	1.34	0.41	16	24
169PMTNS-8-M22	1/2	M22x1.5	1.26	1.59	0.41	19	30
169PMTNS-12-M22	3/4	M22x1.5	1.77	1.59	0.41	27	30

169PMTR Male Elbow Positional Swivel 90°



Part No.	Tube Size	Pipe Thread	B Hex.	L	N	Wrench Flats
169PMTR-4-4	1/4	1/4	9/16	0.84	1.13	1/2
169PMTR-6-6	3/8	3/8	3/4	1.12	1.19	9/16
169PMTR-10-8	5/8	1/2	7/8	1.54	1.50	7/8

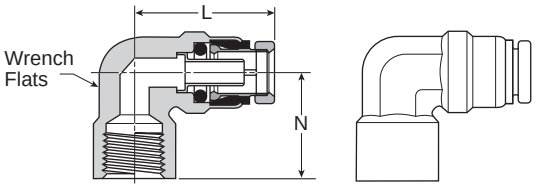
170PMT Female Elbow Swivel 90°



Part No.	Tube Size	Pipe Thread	L	N	C Hex.	Wrench Flats
170PMT-4-2	1/4	1/8-27	0.84	1.18	1/2	1/2

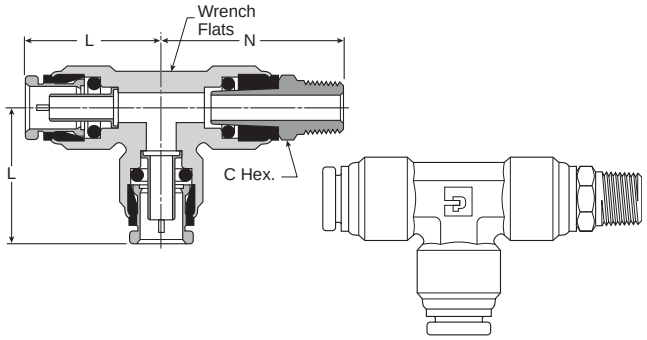
† U.S. Patent No. 5,683,120

170PMTNS Female Elbow Non-Swivel 90°



Part No.	Tube Size	Pipe Thread	L	N	Wrench Flats
170PMTNS-4-2	1/4	1/8	.84	0.56	11/16
170PMTNS-4-4	1/4	1/4	1.00	0.67	11/16
170PMTNS-6-2	3/8	1/8	1.12	0.64	9/16
170PMTNS-6-4	3/8	1/4	1.25	1.00	11/16
170PMTNS-6-6	3/8	3/8	1.25	1.00	13/16
170PMTNS-8-4	1/2	1/4	1.25	0.75	11/16
170PMTNS-8-6	1/2	3/8	1.32	0.88	11/16
170PMTNS-8-8	1/2	1/2	1.70	0.98	1

171PMT Male Run Tee Swivel 90°

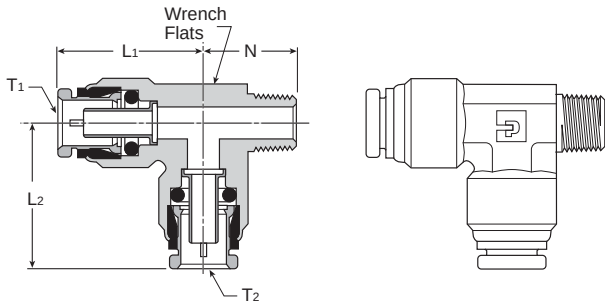


Part No.	Tube Size	Pipe Thread	L	N	C Hex.	Wrench Flats
171PMT-4-2	1/4	1/8	0.85	1.25	7/16	1/2
171PMT-4-4	1/4	1/4	0.85	1.48	9/16	1/2
171PMT-6-2	1/4	3/8	0.85	1.43	11/16	1/2
171PMT-6-4	3/8	1/4	1.21	1.83	9/16	5/8
171PMT-6-6	3/8	3/8	1.21	1.83	11/16	5/8
171PMT-8-4	1/2	1/4	1.27	1.74	5/8	7/8
171PMT-8-6	1/2	3/8	1.27	1.83	3/4	7/8
171PMT-8-8	1/2	1/2	1.27	1.99	7/8	7/8

N

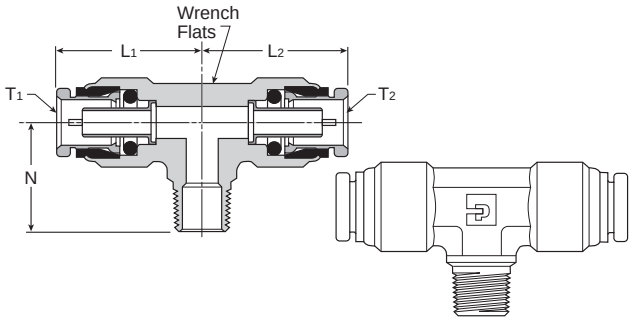
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Pneumatic Division
Richland, Michigan
www.parker.com/pneumatics

171PMTNS Male Run Tee Non-Swivel 90°



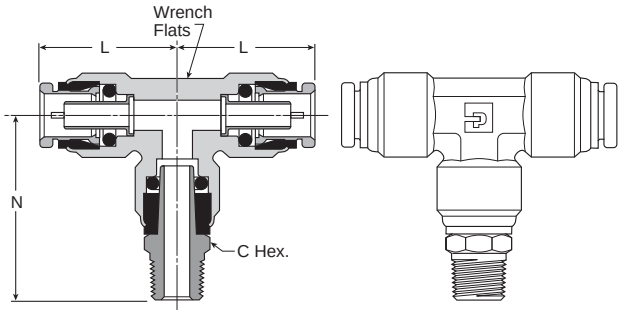
Part No.	Tube 1 Size	Tube 2 Size	Pipe Thread	L1	L2	N	Wrench Flats
171PMTNS-4-2	1/4	1/4	1/8	0.91	0.91	0.77	15/32
171PMTNS-4-4	1/4	1/4	1/4	0.91	0.91	0.94	15/32
171PMTNS-4-6-4	1/4	3/8	1/4	0.93	1.21	0.97	5/8
171PMTNS-6-4	3/8	3/8	1/4	1.21	1.21	0.97	5/8
171PMTNS-6-4-4	3/8	1/4	1/4	1.21	0.93	0.97	5/8
171PMTNS-6-4-6	3/8	1/4	3/8	1.22	0.97	0.93	5/8
171PMTNS-6-6	3/8	3/8	3/8	1.21	1.21	0.97	5/8
171PMTNS-6-8	3/8	3/8	1/2	1.17	1.17	1.26	5/8
171PMTNS-8-4	1/2	1/2	1/4	1.28	1.28	1.06	7/8

172PMTNS Male Branch Tee Non-Swivel



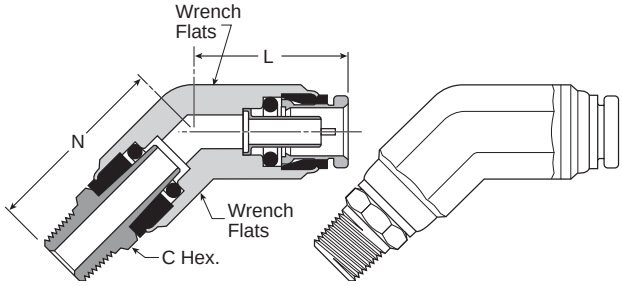
Part No.	Tube 1 Size	Tube 2 Size	Pipe Thread	L1	L2	N	Wrench Flats
172PMTNS-4-2	1/4	1/4	1/8	0.91	0.91	0.78	1/2
172PMTNS-6-4	3/8	3/8	1/4	1.21	1.21	0.97	5/8
172PMTNS-6-4-4	3/8	1/4	1/4	1.21	0.93	0.97	5/8
172PMTNS-6-6	3/8	3/8	3/8	1.21	1.21	0.97	5/8
172PMTNS-6-8	3/8	3/8	1/2	1.17	1.17	1.26	7/8
172PMTNS-8-6	1/2	1/2	3/8	1.28	1.28	1.06	7/8
172PMTNS-8-6-8	1/2	3/8	1/2	1.25	1.25	1.25	7/8
172PMTNS-8-8	1/2	1/2	1/2	1.34	1.34	1.25	7/8

172PMT Male Branch Tee Swivel



Part No.	Tube Size	Pipe Thread	L	N	C Hex.	Wrench Flats
172PMT-4-2	1/4	1/8	0.85	1.25	7/16	1/2
172PMT-4-4	1/4	1/4	0.85	1.43	9/16	1/2
172PMT-6-2	3/8	1/8	1.22	1.66	9/16	5/8
172PMT-6-4	3/8	1/4	1.22	1.83	5/8	5/8
172PMT-6-6	3/8	3/8	1.22	1.83	3/4	5/8
172PMT-8-4	1/2	1/4	1.27	1.73	5/8	7/8
172PMT-8-6	1/2	3/8	1.27	1.79	3/4	7/8
172PMT-8-8	1/2	1/2	1.27	1.97	7/8	7/8

179PMT Male Elbow Swivel 45°



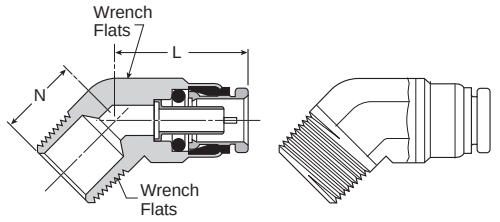
Part No.	Tube Size	Pipe Thread	L	N	C Hex.	Wrench Flats
179PMT-4-2	1/4	1/8	0.79	1.16	7/16	9/16
179PMT-4-4	1/4	1/4	0.89	1.46	9/16	9/16
179PMT-6-2	3/8	1/8	0.99	1.44	5/8	3/4
179PMT-6-4	3/8	1/4	0.99	1.61	5/8	3/4
179PMT-6-6	3/8	3/8	0.99	1.61	5/8	3/4
179PMT-8-4	1/2	1/4	1.20	1.70	5/8	7/8
179PMT-8-6	1/2	3/8	1.20	1.78	3/4	7/8
179PMT-8-8	1/2	1/2	1.20	1.93	7/8	7/8

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† U.S. Patent No. 5,683,120

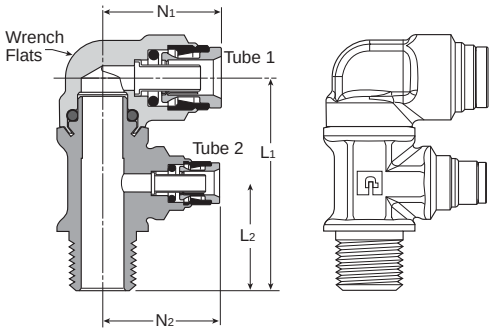
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Richland, Michigan
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179PMTNS Male Elbow Non-Swivel 45°



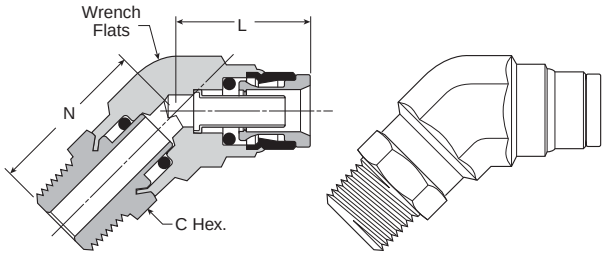
Part No.	Tube Size	Pipe Thread	L	N	Wrench Flats
179PMTNS-4-2	1/4	1/8	0.80	0.56	9/16
179PMTNS-4-4	1/4	1/4	0.80	0.75	9/16
179PMTNS-6-2	3/8	1/8	0.99	0.55	3/4
179PMTNS-6-4	3/8	1/4	0.99	0.73	3/4
179PMTNS-6-6	3/8	3/8	0.99	0.73	3/4
179PMTNS-8-4	1/2	1/4	1.28	0.81	13/16
179PMTNS-8-6	1/2	3/8	1.28	0.81	13/16
179PMTNS-8-8	1/2	1/2	1.28	1.06	13/16
179PMTNS-10-6	5/8	3/8	1.22	0.88	1-1/16
179PMTNS-10-8	5/8	1/2	1.22	1.00	1-1/16
179PMTNS-12-8	3/4	1/2	1.41	1.25	1-1/16

189PMTR Dual Port 90° Male Elbow Positional



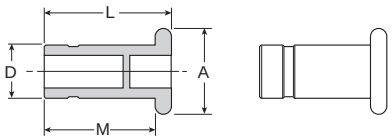
Part No.	Tube 1 Size	Tube 2 Size	Pipe Thread	L_1	L_2	N_1	N_2	Wrench Flats
189PMTR-6-4-6	3/8	1/4	3/8	2.12	1.05	1.21	1.19	11/16
189PMTR-6-6-4	3/8	3/8	1/4	2.06	0.98	1.12	1.20	9/16
189PMTR-6-6-6	3/8	3/8	3/8	2.06	0.98	1.12	1.20	9/16
189PMTR-10-6-6	5/8	1/4	3/8	2.18	1.05	1.54	1.19	7/8
189PMTR-10-6-8	5/8	3/8	3/8	2.31	1.12	1.54	1.18	7/8

179PMTR Male Elbow Positional Swivel 45°



Part No.	Tube Size	Pipe Thread	L	N	C Hex.	Wrench Flats
179PMTR-4-4	1/4	1/4	0.79	1.18	9/16	9/16
179PMTR-8-8	1/2	1/2	1.17	1.35	7/8	7/8

639PM / 639PMT Push-To-Connect Fitting Plug



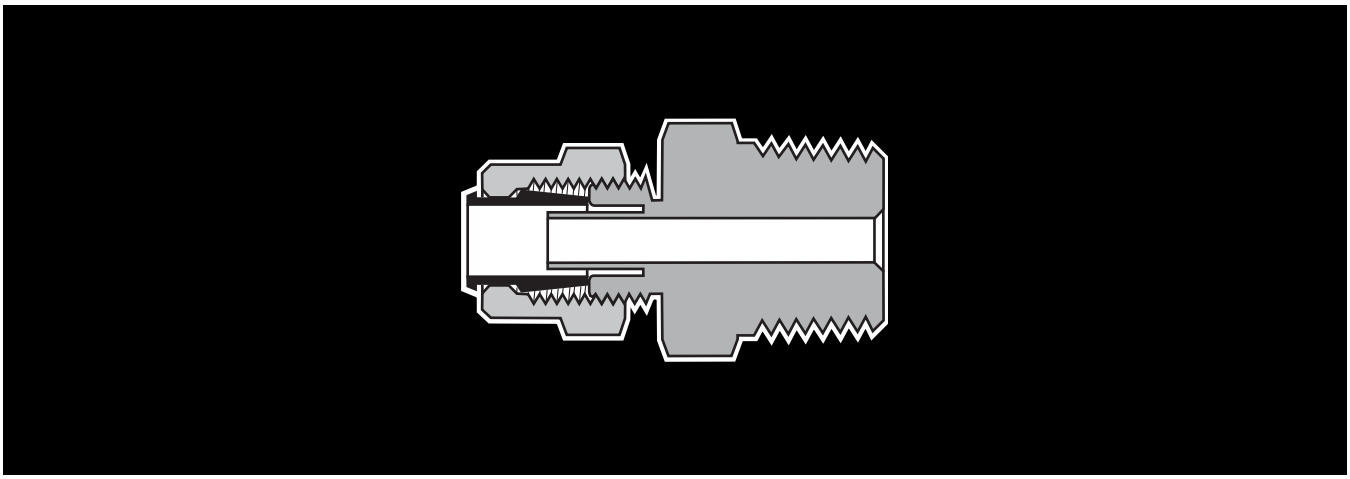
Part No.	Tube Size	L	M	A	D
639PM-5/32BL	5/32	1.09	1.00	0.39	0.156
639PMT-4	1/4	1.14	0.96	0.48	0.250
639PMT-6	3/8	1.33	1.15	0.67	0.375
639PMT-8	1/2	1.33	1.15	0.81	0.500

Specify color when ordering Black (BL) or Blue (BU), example 639PMT-4BU
Note: use appropriate PM / PMT style connection as determined by part number.

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† U.S. Patent No. 5,683,120

Parker Hannifin Corporation
Pneumatic Division
Richland, Michigan
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Advantages

A compact brass compression fitting designed to speed any installation. Body, nut and sleeve are furnished preassembled, ready for installation. An exclusive acetal copolymer sleeve holds plastic tubing where it belongs, even when the system pressure exceeds the tubing burst point. P fitting sleeves have superior resilience to resist creeping and stress caused from compression. The black acetal copolymer sleeve also resists ultra-violet ray attack and has excellent dimensional stability. P fitting nuts will rotate around the sleeve as it tightens to prevent twisting and weakening of the plastic tubing. P fittings can be assembled and disassembled repeatedly.

Materials

Bodies and Nuts: CA377, CA360, CA345, 316 Stainless Steel

Plastic Sleeves: Acetal Copolymer

O-rings: Buna N on chrome plated couplings, fluorocarbon on stainless steel couplings.

Applications

Use with Parker or other high-quality thermoplastic tubing for pneumatic instrumentation circuits, lubricant and coolant lines, and applications with other gases and liquids. For use with soft metal tubing and nylon thermoplastic tubing, use brass sleeve and nut assembly 61PB.

Working Pressure and Temperature Ranges

Up to 150 PSI from 0° to 150°F with thermoplastic tubing. Up to 300 PSI from 0° to 175°F with soft metal tubing.

Assembly Instructions

Polyethylene, polyproplene and vinyl tubing:

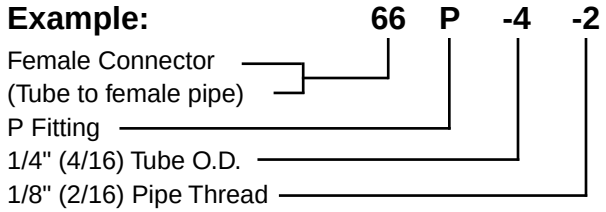
1. Cut tubing squarely – maximum of 15° angle allowable.
2. Check that port or mating part is clean and free of debris.
3. Insert tube end until it bottoms in the fitting and tighten knurl / hex nut finger tight – plus one wrench turn.

Copper, aluminum and nylon tubing:
Brass sleeves are recommended. Insert tube until it bottoms in the P fitting and tighten one wrench turn past finger-tight.

Maximum allowable metal tube wall thickness for use with P fittings: 1/8", 3/16", O.D. — no limitation, 1/4" O.D. — .035" 5/16", 3/8", 1/2" O.D. — .049".

Nomenclature

Part numbers are constructed from symbols that identify the style and size of the fitting. The first series of numbers and letters identifies the style and type fitting. The second series of numbers describes the size



Sizes

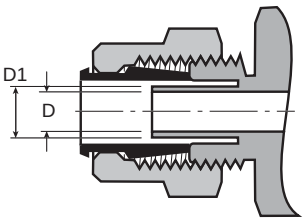
Tube sizes are determined by the number of sixteenths of an inch in the tube O.D.

Special Fittings

Fitting configurations and/or sizes other than those shown in the catalog can be furnished. It is suggested that a print or sketch be submitted with the inquiry.

Tube Support O.D.

Tube Size Inches	*D1 Tube Support O.D.
1/4	.168
5/16	.185
3/8	.248
1/2	.373

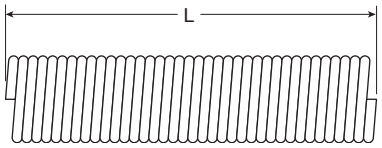


*Note: No tube support for sizes 1/8" and 3/16".

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56PSG Spring Guard



Part No.	Tube Size	L
56PSG-4	1/4	3.00
56PSG-5	5/16	3.00
56PSG-6	3/8	3.00

59P Plastic Cap



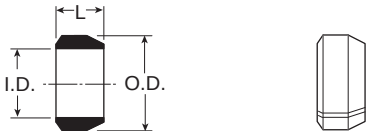
Part No.	Tube Size	A	L
59P-4	1/4	0.247	0.50
59P-5	5/16	0.307	0.53
59P-6	3/8	0.372	0.56
59P-8	1/2	0.497	0.63

60P Acetal Plastic Sleeve



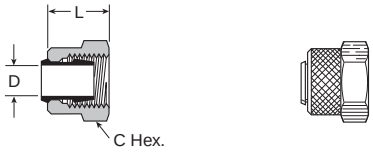
Part No.	Tube Size	A	D	L
60P-4	1/4	0.334	0.261	0.338
60P-5	5/16	0.405	0.321	0.340
60P-6	3/8	0.465	0.381	0.367
60P-8	1/2	0.628	0.514	0.399

60PB Sleeve



Part No.	L	O.D.	I.D.
60PB-2	0.187	0.265	0.130
60PB-3	0.187	0.322	0.192
60PB-4	0.187	0.336	0.255
60PB-5	0.187	0.400	0.318
60PB-6	0.218	0.460	0.382
60PB-8	0.250	0.620	0.507

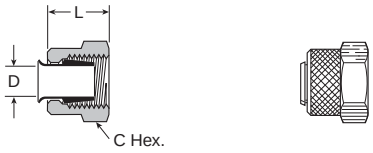
61P Nut and Sleeve Assembly



Part No.	Tube Size	Straight Thread	C Hex	D	L
61P-2*	1/8	5/16-24	3/8	0.130	0.34
61P-3*	3/16	3/8-24	7/16	0.192	0.37
61P-4	1/4	3/8-24	7/16	0.261	0.38
61P-5	5/16	7/16-24	1/2	0.321	0.34
61P-6	3/8	1/2-24	9/16	0.380	0.38
61P-8	1/2	11/16-20	3/4	0.514	0.44

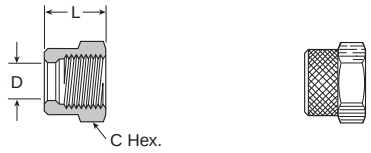
*Brass Sleeve

61PB Nut and Sleeve Assembly



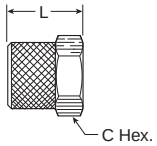
Part No.	Tube Size	Straight Thread	C Hex.	D	L
61PB-4	1/4	3/8-24	7/16	0.255	0.38
61PB-5	5/16	7/16-24	1/2	0.318	0.34
61PB-6	3/8	1/2-24	9/16	0.382	0.38
61PB-8	1/2	11/16-20	3/4	0.507	0.44

61PN Nut



Part No.	Tube Size	Straight Thread	C Hex.	L
61PN-2	1/8	5/16-24	3/8	0.34
61PN-3	3/16	3/8-24	7/16	0.37
61PN-4	1/4	3/8-24	7/16	0.38
61PN-5	5/16	7/16-24	1/2	0.34
61PN-6	3/8	1/2-24	9/16	0.38
61PN-8	1/2	11/16-20	3/4	0.44

61PSGN Nut Only, for Use with Spring Guard

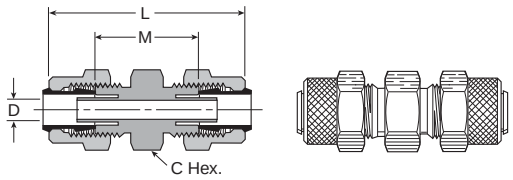


Part No.	Tube Size	L	C Hex.
61PSGN-4	1/4	0.625	0.437
61PSGN-5	5/16	0.625	0.500
61PSGN-6	3/8	0.656	0.562

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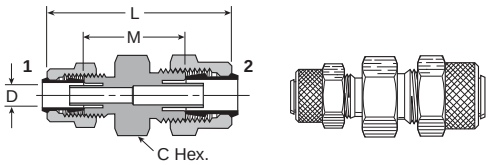
62P Union



Part No.	Tube Size	Straight Thread	C Hex.	L	M	Flow Dia. D
62P-2*	1/8	5/16-24	5/16	1.08	0.64	0.094
62P-3*	3/16	3/8-24	3/8	1.16	0.73	0.125
62P-4	1/4	3/8-24	3/8	1.17	0.96	0.125
62P-5	5/16	7/16-24	7/16	1.16	0.96	0.144
62P-6	3/8	1/2-24	1/2	1.23	0.99	0.204
62P-8	1/2	11/16-20	11/16	1.47	1.24	0.323

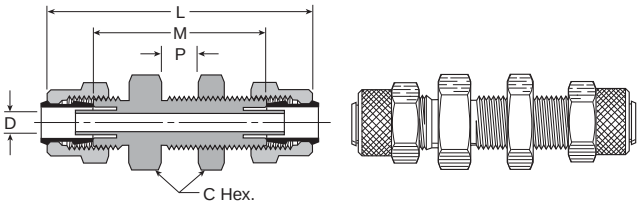
*Brass Sleeve, No Tube Support

62P Union Reducer



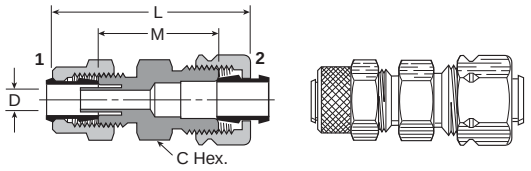
Part No.	1 Tube Size	2 Tube Size	1 Straight Thread	2 Straight Thread	C Hex.	L	M	Flow Dia. D
62P-6-4	1/4	3/8	3/8-24	1/2-24	1/2	1.22	0.99	0.125

62PBH Bulkhead Union



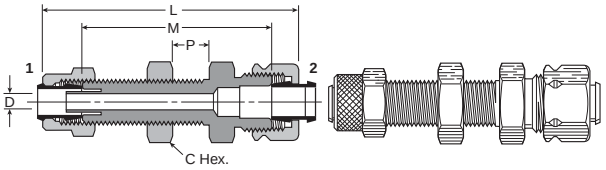
Part No.	Tube Size	Straight Thread	C Hex.	P Max.	L	M	Bulkhead Hole Dia.	Flow Dia. D
62PBH-4	1/4	3/8-24	9/16	0.38	1.75	1.53	3/8	0.125
62PBH-5	5/16	7/16-24	5/8	0.38	1.71	1.52	7/16	0.144
62PBH-6	3/8	1/2-24	11/16	0.47	1.89	1.65	1/2	0.204
62PBH-8	1/2	11/16-20	7/8	0.63	2.28	2.05	11/16	0.323

62PCA Union (Tube to Compress-Align Fitting)



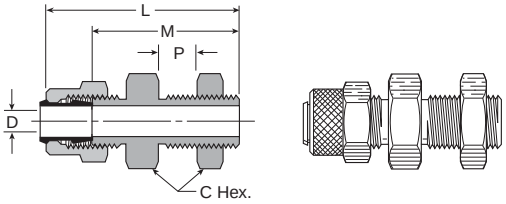
Part No.	Tube Size	1 Straight Thread	2 Straight Thread	C Hex.	L	M	Flow Dia. D
62PCA-4	1/4	3/8-24	7/16-24	7/16	1.25	0.89	0.125
62PCA-5	5/16	7/16-24	1/2-24	1/2	1.30	0.92	0.144
62PCA-6	3/8	1/2-24	9/16-24	9/16	1.37	0.98	0.204

62PCABH Bulkhead Union
(Tube to Compress Align Fitting)



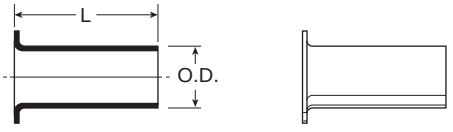
Part No.	Tube Size	1 Straight Thread	2 Straight Thread	C Hex.	P Max.	L	M	Bulk-head Hole Dia.	Flow Dia. D
62PCABH-4	1/4	3/8-24	7/16-24	9/16	0.38	1.81	1.45	3/8	0.125
62PCABH-6	3/8	1/2-24	9/16-24	11/16	0.47	2.03	1.64	1/2	0.204

62PTBH Bulkhead Union (Straight Through)



Part No.	Tube Size	Straight Thread	C Hex.	P Max.	L	M	Bulkhead Hole Dia.	Flow Dia. D
62PTBH-4	1/4	3/8-24	9/16	0.31	1.19	0.93	3/8	0.260
62PTBH-5	5/16	7/16-24	5/8	0.31	1.19	0.93	7/16	0.323
62PTBH-6	3/8	1/2-24	11/16	0.34	1.26	0.99	1/2	0.387

63PT Brass Insert

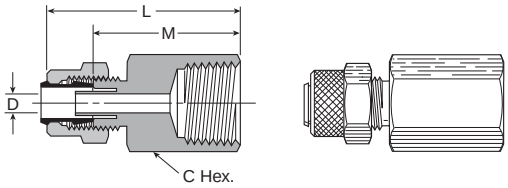


Part No.	Tube Size	L	O.D.
63PT-2-16	1/8	0.46	0.080
63PT-2-32	1/8	0.31	0.061
63PT-3-25	3/16	0.45	0.135
63PT-3-40	3/16	0.52	0.095

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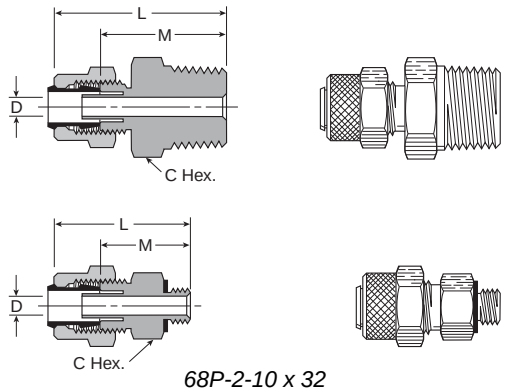
66P Female Connector



Part No.	Tube Size	Pipe Thread	Straight Thread	C Hex.	L	M	Flow Dia. D
66P-2-2*	1/8	1/8	5/16-24	9/16	0.97	0.75	0.094
66P-3-2*	3/16	1/8	3/8-24	9/16	1.00	0.78	0.125
66P-3-4*	3/16	1/4	3/8-24	11/16	1.18	0.96	0.125
66P-4-2	1/4	1/8	3/8-24	1/2	0.97	0.86	0.125
66P-4-4	1/4	1/4	3/8-24	5/8	1.18	1.07	0.125
66P-5-2	5/16	1/8	7/16-24	1/2	0.97	0.86	0.144
66P-6-4	3/8	1/4	1/2-24	5/8	1.18	1.07	0.204
66P-8-6	1/2	3/8	11/16-20	13/16	1.31	1.20	0.323

*Brass Sleeve, No Tube Support

68P Male Connector

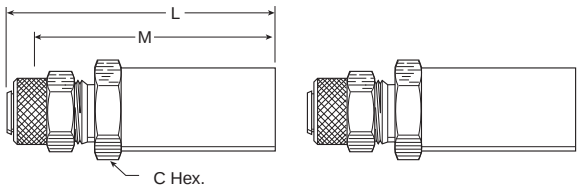


68P-2-10 x 32

Part No.	Tube Size	Pipe Thread	Straight Thread	C Hex.	L	M	Flow Dia. D
68P-2-1*	1/8	1/16	5/16-24	11/32	1.00	0.78	0.094
68P-2-2*	1/8	1/8	5/16-24	7/16	0.99	0.77	0.094
68P-3-1	3/16	1/16	3/8-24	7/16	1.09	0.84	0.094
68P-3-2*	3/16	1/8	3/8-24	7/16	1.06	0.84	0.125
68P-3-4*	3/16	1/4	3/8-24	9/16	1.25	1.03	0.125
68P-4-1	1/4	1/16	3/8-24	3/8	1.06	0.95	0.125
68P-4-2	1/4	1/8	3/8-24	7/16	1.06	0.95	0.125
68P-4-4	1/4	1/4	3/8-24	9/16	1.25	1.14	0.125
68P-4-6	1/4	3/8	3/8-24	11/16	1.28	1.17	0.125
68P-5-2	5/16	1/8	7/16-24	7/16	1.05	0.95	0.144
68P-5-4	5/16	1/4	7/16-24	9/16	1.24	1.14	0.144
68P-6-2	3/8	1/8	1/2-24	1/2	1.10	0.98	0.204
68P-6-4	3/8	1/4	1/2-24	9/16	1.29	1.17	0.204
68P-6-6	3/8	3/8	1/2-24	11/16	1.29	1.17	0.204
68P-8-4	1/2	1/4	11/16-20	11/16	1.46	1.29	0.320
68P-8-6	1/2	3/8	11/16-20	11/16	1.37	1.29	0.323
68P-2-10 x 32*	1/8	10-32	5/16-24	3/8	0.86	0.64	0.094
68P-4-10 x 32	1/4	10-32	3/8-24	3/8	0.86	0.75	0.094

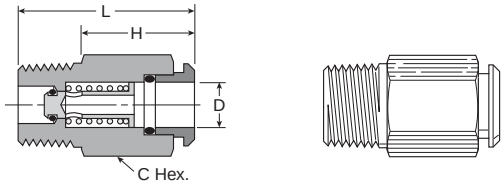
*Brass Sleeve, No Tube Support

97P Tube End Reducer



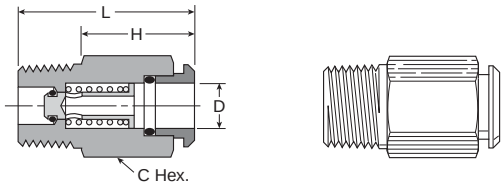
Part No.	Tube Size	C Hex.	L	M
97P-4-6	3/8 x 1/4	0.437	1.718	1.625
97P-6-8	1/2 x 3/8	0.562	1.875	1.781

391P Pipe Coupler Body (Chrome Plated)



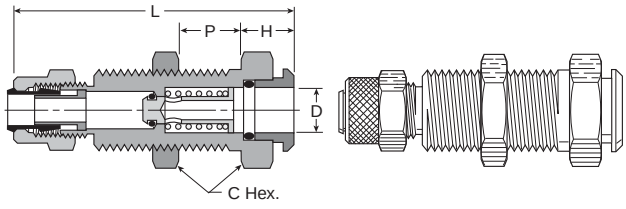
Part No.	D Insert Dia.	Pipe Thread	C Hex.	H	L
391P-4-2	1/4	1/8	1/2	0.91	1.29
391P-4-4	1/4	1/4	9/16	0.73	1.29
391P-6-4	3/8	1/4	5/8	0.85	1.41

391PSS Pipe Coupler Body (Stainless Steel)



Part No.	D Insert Dia.	Pipe Thread	C Hex.	H	L
391PSS-4-2	1/4	1/8	0.500	0.900	1.271
391PSS-4-4	1/4	1/4	0.562	0.710	1.271
391PSS-6-4	3/8	1/4	0.625	0.840	1.400

392P Bulkhead Coupler Body (Chrome Plated)

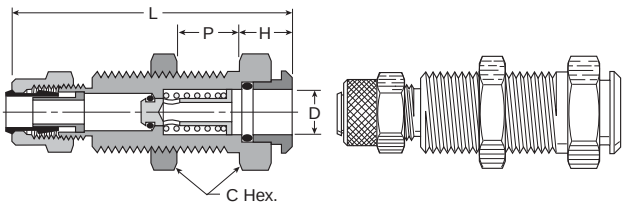


Part No.	Tube Size	D Insert Dia.	Straight Thread	C Hex.	P Max.	H	L	Bulkhead Hole Dia.
392P-4-4	1/4	1/4	1/2-24	5/8	0.84	0.39	2.13	1/2
392P-6-6	3/8	3/8	11/16-24	13/16	0.93	0.37	2.01	11/16

N

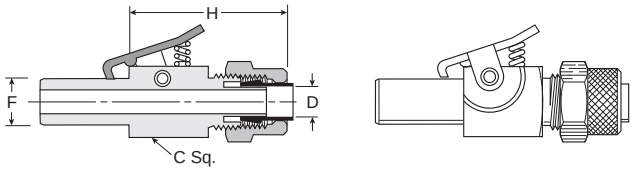
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Pneumatic Division
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392PSS Bulkhead Coupler Body (Stainless Steel)



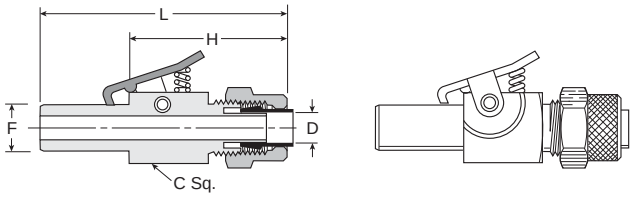
Part No.	Tube Size	D Insert Dia.	Straight Thread	C Hex.	P Max.	H	L	Bulkhead Hole Dia.
392PSS-4-4	1/4	1/4	1/2-24	0.625	0.84	0.28	2.03	1/2
392PSS-6-6	3/8	3/8	11/16-24	0.812	0.93	0.31	2.20	11/16

393P Through Type Insert (Chrome Plated)



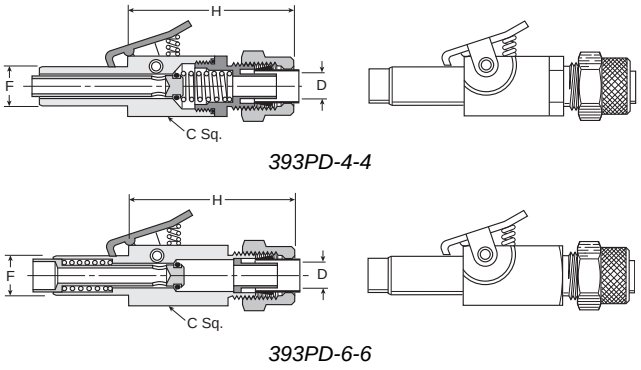
Part No.	Tube Size	F Insert Dia.	Straight Thread	C Square	H	Flow Dia. D
393P-4-4	1/4	1/4	3/8-24	7/16	1.12	0.125
393P-6-6	3/8	3/8	1/2-24	1/2	1.34	0.203

393PSS Through Type Insert (Stainless Steel)



Part No.	Tube Size	F Insert Dia.	L	C Square	H	Flow Dia. D
393PSS-4-4	1/4	1/4	1.677	0.500	0.99	0.125
393PSS-6-6	3/8	3/8	2.030	0.500	1.27	0.203

393PD Shut-off Type Insert (Chrome Plated)

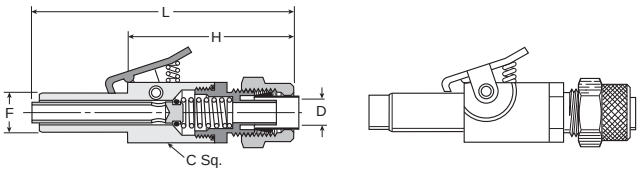


393PD-4-4

393PD-6-6

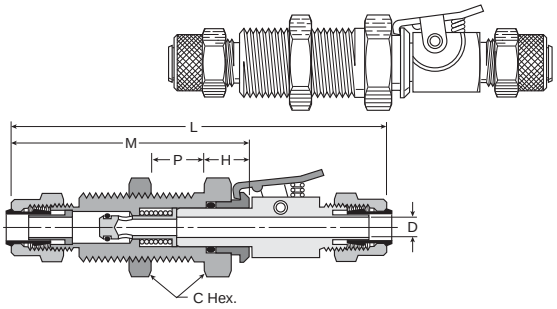
Part No.	Tube Size	F Insert Dia.	Straight Thread	C Square	H	Flow Dia. D
393PD-4-4	1/4	1/4	3/8-24	7/16	1.61	0.110
393PD-6-6	3/8	3/8	1/2-24	1/2	1.45	0.187

393PDSS Shut-off Type Insert (Stainless Steel)



Part No.	Tube Size	F Insert Dia.	L	C Square	H	Flow Dia. D
393PDSS-4-4	1/4	1/4	2.46	0.500	1.62	0.116
393PDSS-6-6	3/8	3/8	2.60	0.500	1.67	0.157

394P Single End Shut-off Bulkhead Quick Coupler (Chrome Plated)

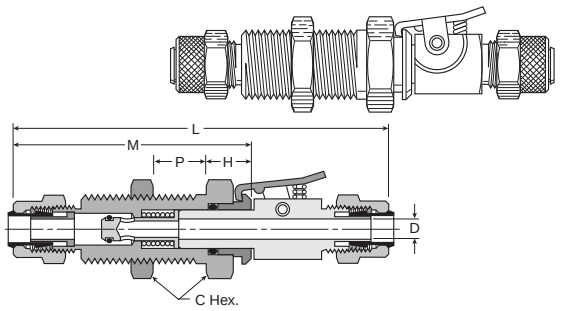


Part No.	Tube Size	Straight Thread	C Hex.	P Max.	H	L	M	Bulkhead Hole Dia.	Flow Dia. D
394P-4-4	1/4	1/2 - 24	5/8	0.84	0.39	3.28	2.13	1/2	0.125
394P-6-6	3/8	11/16-24	13/16	0.93	0.37	3.41	2.01	11/16	0.203

N

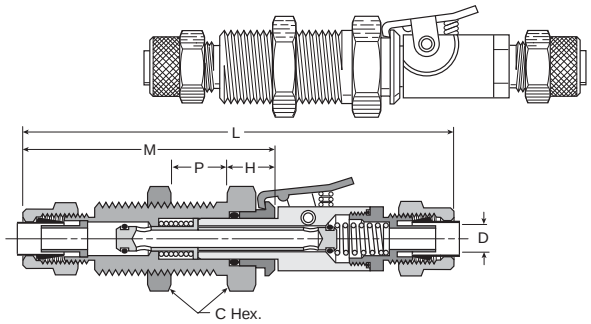
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394PSS Single End Shut-off Bulkhead Quick Coupler (Stainless Steel)

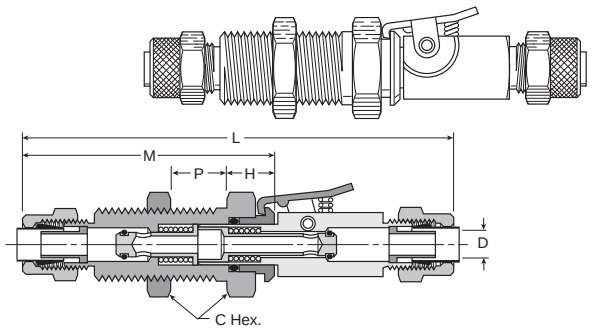


Part No.	Tube Size	Straight Thread	C Hex.	P Max.	H	L	M	Flow Dia. D
394PSS-4-4	1/4	1/2 - 24	0.625	0.84	0.31	3.05	2.06	0.125
394PSS-6-6	3/8	11/16-24	0.812	0.93	0.34	3.50	2.23	0.203

394PD Double End Shut-off Bulkhead Quick Coupler (Chrome Plated)



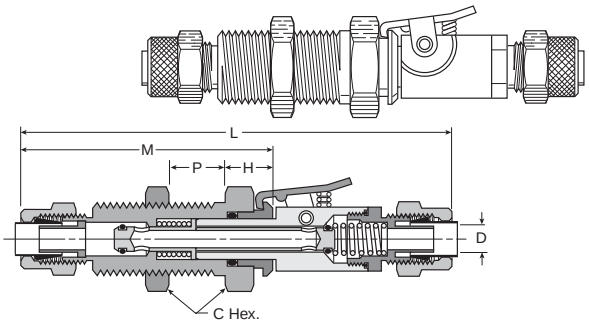
394PD-4-4



394PD-6-6

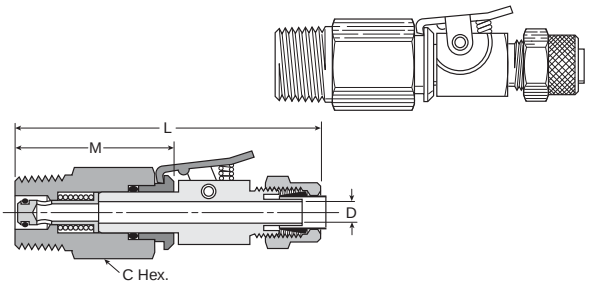
Part No.	Tube Size	Straight Thread	C Hex.	P Max.	H	L	M	Bulk-head Hole Dia.	Flow Dia. D
394PD-4-4	1/4	1/2-24	5/8	0.84	0.39	3.77	2.13	1/2	0.125
394PD-6-6	3/8	11/16-24	13/16	0.93	0.47	3.48	2.01	11/16	0.204

394PDSS Double End Shut-off Bulkhead Quick Coupler (Stainless Steel)



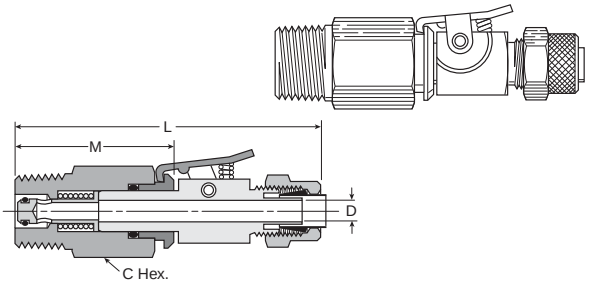
Part No.	Tube Size	Straight Thread	C Hex.	P Max.	H	L	M	Flow Dia. D
394PDSS-4-4	1/4	1/2-24	0.625	0.84	0.32	3.69	2.67	0.125
394PDSS-6-6	3/8	11/16-24	0.812	0.93	0.34	3.91	2.24	0.204

398P Single End Shut-off Pipe Connector Quick Coupler (Chrome Plated)



Part No.	Tube Size	Pipe Thread	Straight Thread	C Hex.	L	M	Flow Dia. D
398P-4-2	1/4	1/8	3/8-24	1/2	2.45	1.32	0.125
398P-4-4	1/4	1/4	3/8-24	9/16	2.45	1.32	0.125
398P-6-4	3/8	1/4	1/2-24	5/8	2.80	1.46	0.203

398PSS Single End Shut-off Pipe Connector Quick Coupler (Stainless Steel)

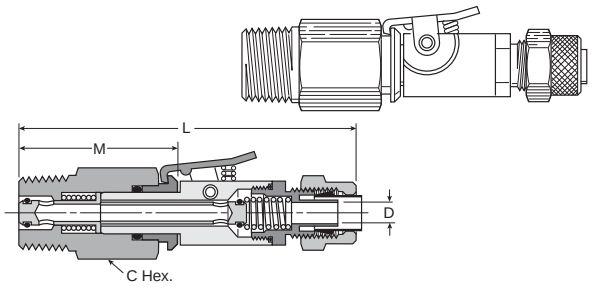


Part No.	Tube Size	Pipe Thread	Straight Thread	C Hex.	L	M	Flow Dia. D
398PSS-4-2	1/4	1/8	3/8-24	0.500	2.30	1.32	0.125
398PSS-4-4	1/4	1/4	3/8-24	0.562	2.30	1.32	0.125
398PSS-6-4	3/8	1/4	1/2-24	0.625	2.70	1.46	0.203

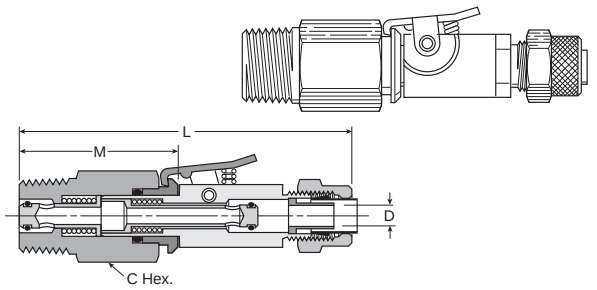
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Pneumatic Division
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398PD Double End Shut-off Pipe Connector Quick Coupler (Chrome Plated)



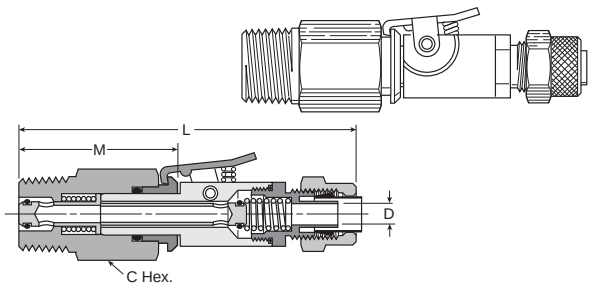
394PD-4-X



394PD-6-4

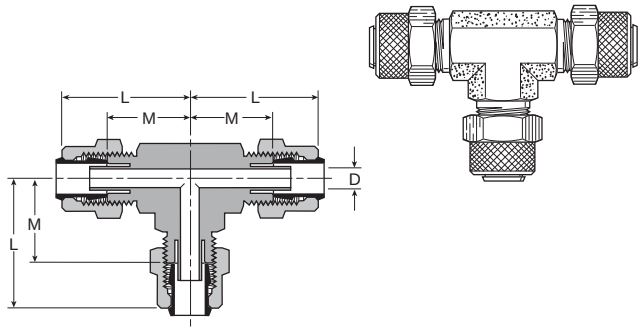
Part No.	Tube Size	Pipe Thread	Straight Thread	C Hex.	L	M	Flow Dia. D
398PD-4-2	1/4	1/8	3/8-24	1/2	2.93	1.31	0.125
398PD-4-4	1/4	1/4	3/8-24	9/16	2.93	1.32	0.125
398PD-6-4	3/8	1/4	1/2-24	5/8	2.88	1.43	0.204

398PDSS Double End Shut-off Pipe Connector Quick Coupler (Stainless Steel)



Part No.	Tube Size	Pipe Thread	Straight Thread	C Hex.	L	M	Flow Dia. D
398PDSS-4-2	1/4	1/8	3/8-24	0.500	2.93	1.31	0.125
398PDSS-4-4	1/4	1/4	3/8-24	0.562	2.93	1.31	0.125
398PDSS-6-4	3/8	1/4	1/2-24	0.625	3.10	1.43	0.125

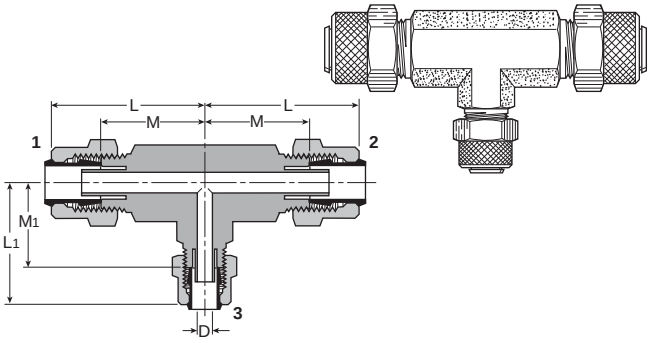
164P-264P Union Tee



Part No.	Tube Size	Straight Thread	L	M	Flow Dia. D
164P-2*	1/8	5/16-24	0.83	0.61	0.094
264P-3*	3/16	3/8-24	0.83	0.61	0.125
164P-4	1/4	3/8-24	0.84	0.73	0.125
164P-5	5/16	7/16-24	0.83	0.73	0.144
164P-6	3/8	1/2-24	0.98	0.86	0.203
164P-8	1/2	11/16-20	1.12	1.04	0.323

*Brass Sleeve, No Tube Support

164P Union Tee Combination Size

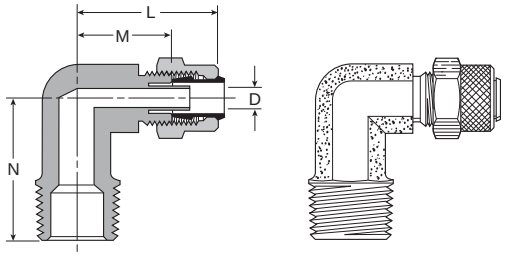


Part No.	1 Tube Size	2 Tube Size	3 Tube Size	L	L1	M	M1	Flow Dia. D
164P-6-4	3/8	3/8	1/4	0.98	0.90	0.86	0.79	0.125

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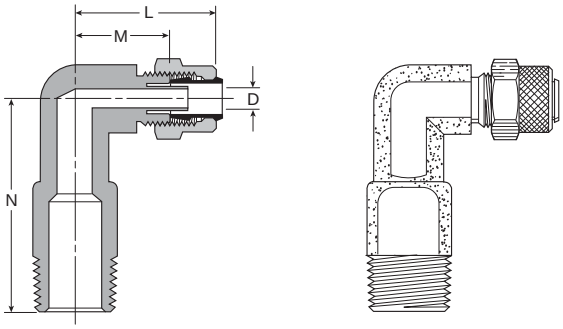
169P-269P Male Elbow



Part No.	Tube Size	Pipe Thread	Straight Thread	L	M	N	Flow Dia. D
169P-2-1	1/8	1/16	5/16-24	0.88	0.63	0.69	0.094
269P-2-2*	1/8	1/8	5/16-24	0.83	0.61	0.67	0.094
169P-3-1	3/16	1/16	3/8-24	0.88	0.63	0.69	0.094
169P-3-2*	3/16	1/8	3/8-24	0.83	0.61	0.69	0.125
169P-3-4*	3/16	1/4	3/8-24	0.85	0.63	0.94	0.125
169P-4-1	1/4	1/16	3/8-24	0.92	0.58	0.67	0.130
169P-4-2	1/4	1/8	3/8-24	0.84	0.73	0.75	0.121
169P-4-4	1/4	1/4	3/8-24	0.90	0.79	0.92	0.125
169P-4-6	1/4	3/8	3/8-24	0.93	0.84	1.08	0.125
169P-5-2	5/16	1/8	7/16-24	0.87	0.73	0.68	0.144
169P-6-2	3/8	1/8	1/2-24	0.93	0.81	0.73	0.203
169P-6-4	3/8	1/4	1/2-24	0.98	0.86	1.05	0.203
169P-6-6	3/8	3/8	1/2-24	0.98	0.86	1.08	0.203
169P-8-6	1/2	3/8	11/16-20	1.12	1.04	1.13	0.323

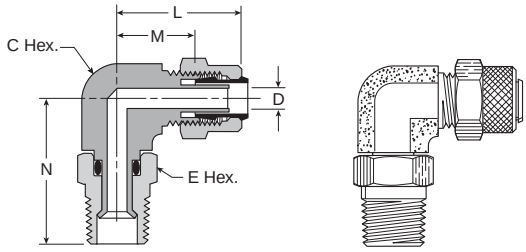
*Brass Sleeve, No Tube Support

169LP Long Male Elbow



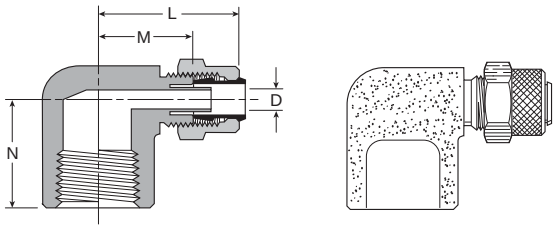
Part No.	Tube Size	Pipe Thread	Straight Thread	L	M	N	Flow Dia. D
169LP-4-4	1/4	1/4	3/8-24	0.90	0.79	1.38	0.125

169PS Male Elbow Swivel



Part No.	Tube Size	Pipe Thread	C Hex.	E Hex.	L	M	N	Flow Dia. D
169PS-4-2	1/4	1/8	3/8	7/16	0.812	0.594	0.862	0.121
169PS-4-4	1/4	1/4	9/16	9/16	0.906	0.688	1.218	0.125
169PS-6-2	3/8	1/8	7/16	7/16	0.875	0.625	0.904	0.203
169PS-6-4	3/8	1/4	9/16	9/16	0.937	0.685	1.218	0.203
169PS-6-6	3/8	3/8	9/16	11/16	0.859	0.602	1.190	0.203
169PS-8-6	1/2	3/8	1/2	11/16	1.031	0.782	1.218	0.323

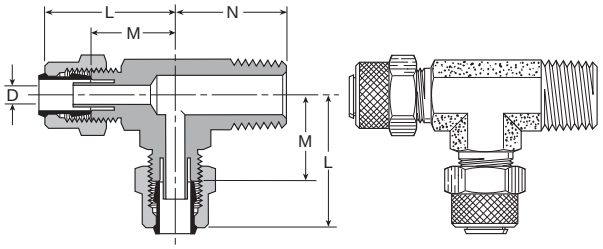
170P Female Elbow



Part No.	Tube Size	Pipe Thread	Straight Thread	L	M	N	Flow Dia. D
170P-2-2*	1/8	1/8	5/16-24	0.91	0.69	0.56	0.094
170P-3-2*	3/16	1/8	3/8-24	0.91	0.69	0.56	0.125
170P-4-2	1/4	1/8	3/8-24	0.90	0.79	0.56	0.125
170P-4-4	1/4	1/4	3/8-24	1.00	0.89	0.69	0.125
170P-6-4	3/8	1/4	1/2-24	1.01	0.89	0.69	0.204
170P-8-6	1/2	3/8	11/16-20	1.19	1.11	1.13	0.323

*Brass Sleeve, No Tube Support

171P Male Run Tee



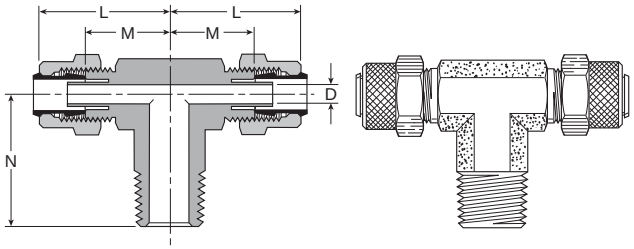
Part No.	Tube Size	Pipe Thread	Straight Thread	L	M	N	Flow Dia. D
171P-2-2*	1/8	1/8	5/16-24	0.82	0.60	0.67	0.094
171P-3-2*	3/16	1/8	3/8-24	0.82	0.60	0.67	0.125
171P-4-2	1/4	1/8	3/8-24	0.84	0.73	0.72	0.125
171P-4-4	1/4	1/4	3/8-24	0.92	0.81	0.92	0.125
171P-5-2	5/16	1/8	7/16-24	0.83	0.73	0.72	0.144
171P-6-4	3/8	1/4	1/2-24	0.98	0.86	1.03	0.203
171P-8-6	1/2	3/8	11/16-20	1.12	1.04	1.13	0.323

*Brass Sleeve, No Tube Support

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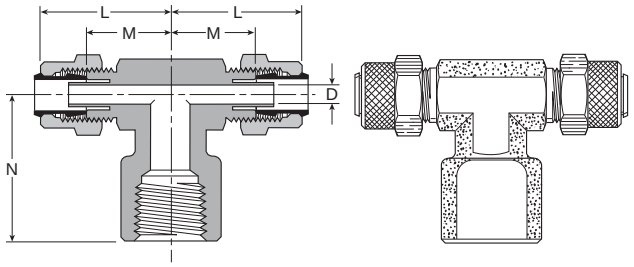
172P Male Branch Tee



Part No.	Tube Size	Pipe Thread	Straight Thread	L	M	N	Flow Dia. D
172P-2-2*	1/8	1/8	5/16-24	0.82	0.60	0.67	0.094
172P-3-2*	3/16	1/8	3/8-24	0.82	0.60	0.67	0.125
172P-4-2	1/4	1/8	3/8-24	0.84	0.73	0.72	0.125
172P-4-4	1/4	1/4	3/8-24	0.92	0.81	0.92	0.125
172P-5-2	5/16	1/8	7/16-24	0.83	0.73	0.72	0.144
172P-6-2	3/8	1/8	1/2-24	0.88	0.86	0.74	0.204
172P-6-4	3/8	1/4	1/2-24	0.98	0.86	1.03	0.204
172P-8-6	1/2	3/8	11/16-20	1.12	1.04	1.13	0.323

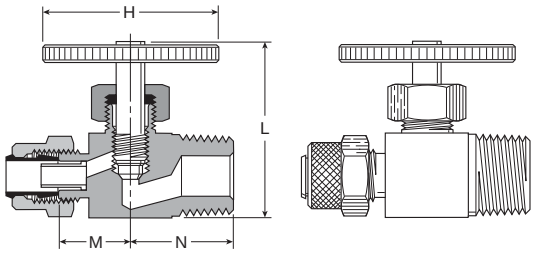
*Brass Sleeve, No Tube Support

177P Female Branch Tee



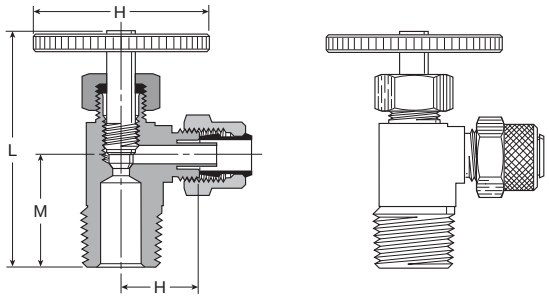
Part No.	Tube Size	Pipe Thread	Straight Thread	L	M	N	Flow Dia. D
177P-4-2	1/4	1/8	3/8-24	0.92	0.81	0.88	0.125
177P-4-4	1/4	1/4	3/8-24	0.92	0.81	1.03	0.125
177P-4-6	1/4	3/8	3/8-24	1.03	0.92	1.13	0.125

NV311P Needle Valve



Part No.	Tube Size	Pipe Thread	H	L Open	L Closed	M	N
NV311P-4-2	1/4	1/8	1.06	1.36	1.16	0.64	0.63
NV311P-4-4	1/4	1/4	1.06	1.38	1.18	0.64	0.72
NV311P-6-4	3/8	1/4	1.06	1.38	1.18	0.64	0.72

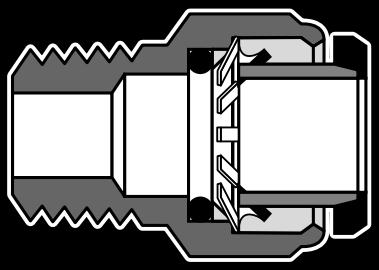
NV312P Angle Needle Valve



Part No.	Tube Size	Pipe Thread	H	L Open	L Closed	M	N
NV312P-4-2	1/4	1/8	1.06	1.70	1.50	0.63	0.68
NV312P-4-4	1/4	1/4	1.06	2.07	1.82	0.71	0.86
NV312P-6-4	3/8	1/4	1.06	2.00	1.75	0.74	0.86

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Prestolok Fittings

Advantages

Ready-to-use compact one-piece fitting for use with most thermoplastic tubing. This fitting is specially designed for low pressure circuits where fast assembly, disassembly and reassembly is important. No special tools are needed for assembly; just insert the tubing until it bottoms. Prestolok is designed to be used with no tube support. Radial claws on the stainless steel grab ring grip the tubing securely to provide retention. Brass Male pipe threads come standard with a white acrylic sealant pre-applied ("W" prefix) swivels are featured on all male pipe threaded shapes for installation in tight places and for precise positioning. Prestolok should not be used for live swivel applications. The outside diameter of the tubing to be used with the fitting is marked on the release button.

Materials

Prestolok Nickel Plated Bodies: CA377, CA360, CA345

Prestolok Composite Bodies: Glass Filled Nylon

O-Ring: Nitrile (other compounds available on request)

Release Button: Polyacetal

Grab Ring: Stainless Steel

Recommended Tubing

Prestolok nickel plated and composite fittings are designed to be used with the following Parker Hannifin Parflex Division tubing.

Tubing Series	Tubing Material
E	Linear Low Density Polyethylene
PP	Polypropylene
N	Plasticized Polyamide (Nylon)
NR	Unplasticized Polyamide (Rigid Nylon)
U	Polyurethane 90 Durometer Shore A
HU	Polyurethane 95 Durometer Shore A

Other materials for Prestolok nickel plated fittings: Polyurethane 85 Durometer Shore A

CAUTION: All current manufacturers of 85A PU tubing do not approve the use of push-to-connect fittings with their product.

Testing has shown acceptable use with certain O.D – I.D. combinations. Applications and service conditions vary and therefore the use of a tube support may be required for any 85A PU tubing.

The following commercially available O.D. – I.D. 85A tubing sizes require the use of a tube support regardless of application.

5/32" – 3/32"	3/16" – 1/8"	1/4" - .170"	1/4" – 3/16"
5/16" – 1/4"	3/8" – 5/16"	1/2" – 3/8"	

Working Pressure and Temperature Ranges

Prestolok	Zero to 200°F at up to 300 PSI depending on tubing being used.
Prestolok Composite	Zero to 150°F at up to 150 PSI depending on tubing being used

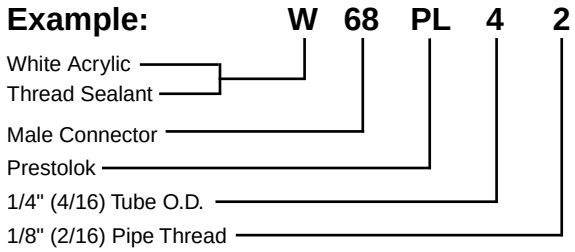
Vacuum applications are dependent upon temperature and type of tubing used.

Assembly Instructions

1. Cut thermoplastic tubing squarely, using Parker Tube Cutter PTC-001. Be certain the port or mating part is clean and free of debris.
2. Insert tubing into fitting until it bottoms. A slight twisting motion will ease the insertion. Pull on tubing to verify it is properly retained in the fitting.
3. To disassemble, simply push the release button against the body and remove tubing.

Nomenclature

Part numbers are constructed from symbols that identify the style and size of the fitting. The first series of numbers and letters identify the style and type fitting. The second series of numbers describe the size.



Sizes

Tube sizes are determined by the number of sixteenths of an inch in the tube O.D.

Metric Fittings

Metric fittings are available in Catalog 3550.
Thread types: BSPT and BSPP Sizes: 1/8-1/2.
Tube sizes: 4MM-14MM.

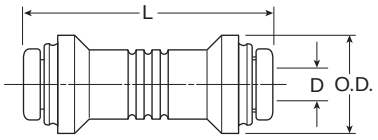
Specials

Fitting configurations and/or sizes other than those shown in the catalog can be furnished. It is suggested that a print or sketch be submitted with the inquiry.

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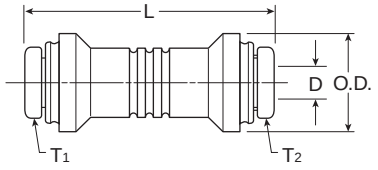
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32PL Equal Union (Composite Body)



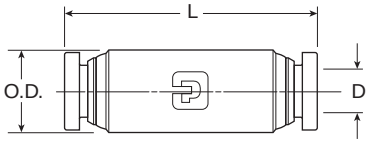
Part No.	Tube Size	O.D.	L	Flow Dia. D
32PL-2	1/8	0.51	1.32	0.09
32PL-5/32	5/32	0.51	1.32	0.12
32PL-3	3/16	0.59	1.37	0.16
32PL-4	1/4	0.59	1.37	0.19
32PL-5	5/16	0.67	1.49	0.25
32PL-6	3/8	0.82	1.76	0.31

32PL Unequal Union (Composite Body)



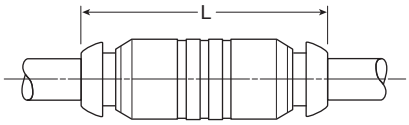
Part No.	Tube 1 Size	Tube 2 Size	O.D.	L	Flow Dia. D
32PL-5/32-2	5/32	1/8	0.51	1.32	0.09
32PL-4-2	1/4	1/8	0.59	1.37	0.09
32PL-5-4	5/16	1/4	0.67	1.47	0.19
32PL-6-4	3/8	1/4	0.82	1.75	0.19

62PLP Union (Nickle Plated)



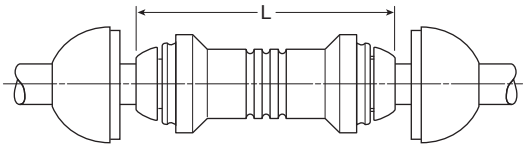
Part No.	Tube Size	O.D.	L	Flow Dia. D
62PLP-2	1/8	0.375	1.40	0.094
62PLP-3	3/16	0.437	1.41	0.156
62PLP-5/32	5/32	0.375	1.41	0.125
62PLP-4	1/4	0.500	1.43	0.188
62PLP-5	5/16	0.562	1.65	0.250
62PLP-6	3/8	0.625	1.66	0.312
62PLP-8	1/2	0.750	1.82	0.375

HPB Equal Union



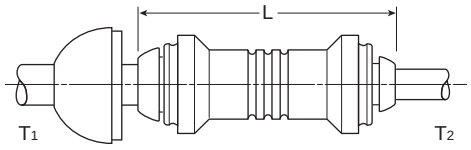
Part No.	Tube Size (mm)	L (mm)
HPB-4	4	33.0
HPB-5	5	34.5
HPB-6	6	36.0
HPB-8	8	38.0
HPB-10	10	48.0
HPB-12	12	48.0
HPB-14	14	54.0

HPK Equal Union



Part No.	Tube Size (mm)	L (mm)
HPK-4	4	33.5
HPK-6	6	37.0
HPK-8	8	39.0
HPK-10	10	48.0
HPK-12	12	49.0
HPK-14	14	54.0

HPK Unequal Union

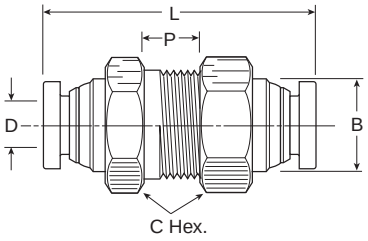


Part No.	Tube 1 Size (mm)	Tube 1 Size (mm)	L (mm)
HPK6-4	4	4	36.0
HPK8-4	8	4	38.0
HPK8-6	8	6	39.0
HPK10-6	10	6	47.0
HPK10-8	10	8	47.0
HPK12-10	12	10	49.5

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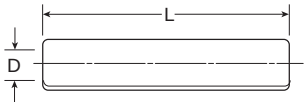
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62PLPBH Bulkhead Union



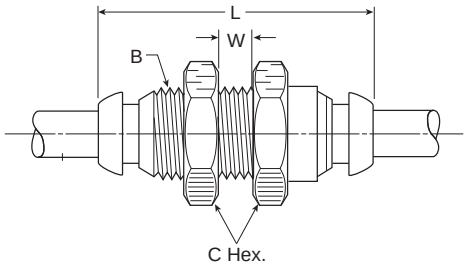
Part No.	Tube Size	B	C Hex.	P Max.	L	D
62PLPBH-2	1/8	7/16	9/16	0.39	1.40	0.094
62PLPBH-5/32	5/32	7/16	9/16	0.39	1.41	0.125
62PLPBH-4	1/4	9/16	11/16	0.29	1.43	0.188
62PLPBH-5	5/16	5/8	3/4	0.60	1.65	0.250
62PLPBH-6	3/8	3/4	7/8	0.54	1.66	0.312
62PLPBH-8	1/2	7/8	1	0.66	2.04	0.375

63PL Double Male Union



Part No.	Tube Size	L	D
63PL-2	1/8	1.49	0.078
63PL-5/32	5/32	1.49	0.106
63PL-4	1/4	1.61	0.188
63PL-5	5/16	1.61	0.236
63PL-6	3/8	2.00	0.295
63PL-8	1/2	2.22	0.374

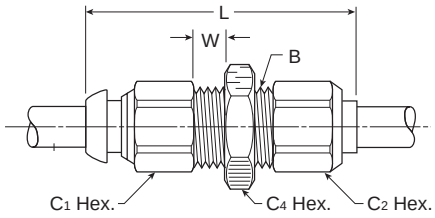
WPB Bulkhead Union



Part No.	Tube Size (mm)	B Thread (mm)	C Hex. (mm)	L (mm)	W (mm)	Bulkhead Hole Dia. (mm)
WPB4	4	M11x0.75	16	33	6	11
WPB6	6	M13x1	19	35	6	13
WPB8	8	M16x1.25	22	36	6	16
WPB10	10	M18x1	22	43	8	18
WPB12	12	M23x1.5	27	46	10	23
WPB14	14	M24x1.5	30	52	10	24

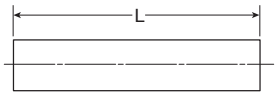
Jam nut is supplied loose in box.

WBMPB Mixed Bulkhead Union



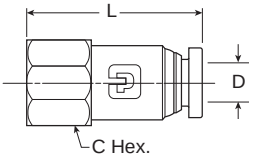
Part No.	Tube 1 Size (mm)	Tube 1 Size (mm)	B Thread (mm)	C_1 Hex. (mm)	C_2 Hex. (mm)	C_4 Hex. (mm)	L (mm)	W (mm)	Bulkhead Hole Dia. (mm)
WBMPB4	4	4	M8x1	10	10	12	34	5	11
WBMPB6	6	6	M10x1	12	10	12	37	5	13
WBMPB8	8	8	M12x1	14	14	16	39	5	16
WBMPB10	10	10	M14x1	17	17	19	45	5	18
WBMPB12	12	12	M16x1	22	19	22	49	5	23
WBMPB14	14	14	M18x1	24	22	22	52	7	24

BPK Double Male Union



Part No.	Tube Size (mm)	L
BPK4	4	38
BPK6	6	41
BPK8	8	41
BPK10	10	51
BPK12	12	54
BPK14	14	55

66PLP Female Connector (Nickle Plated)

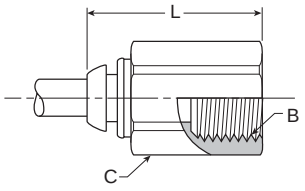


Part No.	Tube Size	B Thread (NPTF)	L	Flow Dia. D
66PLP-2-2	1/8	1/8	1.17	0.094
66PLP-3-2	3/16	1/8	1.13	0.156
66PLP-5/32-2	5/32	1/8	1.17	0.125
66PLP-5/32-4	5/32	1/4	1.38	0.125
66PLP-4-2	1/4	1/8	1.17	0.188
66PLP-4-4	1/4	1/4	1.38	0.188
66PLP-5-2	5/16	1/8	1.25	0.250
66PLP-5-4	5/16	1/4	1.45	0.250
66PLP-6-4	3/8	1/4	1.46	0.312
66PLP-6-6	3/8	3/8	1.51	0.312

N

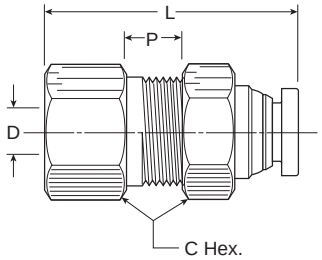
Parker Hannifin Corporation
Pneumatic Division
Richland, Michigan
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G4PB Female Connector BSPP



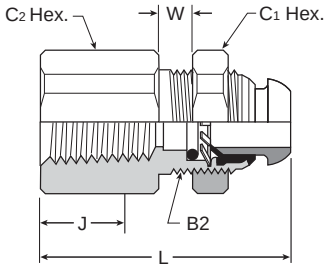
Part No.	Tube Size (mm)	Thread (BSPP)	C Hex. (mm)	L (mm)
G4PB4-1/8	4	1/8	14	26.0
G4PB6-1/8	6	1/8	14	27.5
G4PB6-1/4	6	1/4	17	33.0
G4PB8-1/8	8	1/8	17	29.0
G4PB8-1/4	8	1/4	17	33.0

66PLBH Female Bulkhead (Nickle Plated)



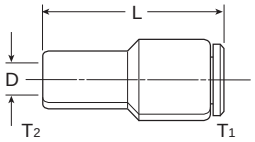
Part No.	Tube Size	Pipe Thread (NPTF)	C Hex.	P Max.	L	Flow Dia. D	Bulkhead Hole Dia. (mm)
66PLBH-5/32-4	5/32	1/4	11/16	0.19	1.39	0.125	1/2
66PLBH-4-4	1/4	1/4	11/16	0.24	1.35	0.188	9-16
66PLBH-6-6	3/8	3/8	1	0.22	1.47	0.312	7/8
66PLBH-8-6	1/2	3/8	1-1/4	0.35	1.56	0.344	1

WG4PB Bulkhead Union Female BSPP



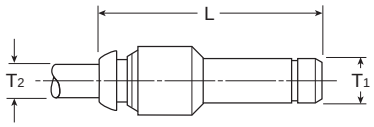
Part No.	Tube Size (mm)	Thread (BSPP)	B2	C1 Hex. (mm)	C2 Hex. (mm)	J (mm)	L (mm)	W (mm)
WG4PB4-1/8	4	G1/8	M1x0.75	14	14	8	25.0	6
WG4PB6-1/8	6	G1/8	M13x1	17	17	8	25.0	6
WG4PB6-1/4	6	G1/4	M13x1	17	19	12	29.5	6
WG4PB8-1/8	8	G1/8	M15x1.25	19	17	8	25.0	6
WG4PB8-1/4	8	G1/4	M15x1.25	19	19	12	30.0	6
WG4PB10-3/8	10	G3/8	M18x1	22	22	12	34.0	8
WG4PB12-3/8	12	G3/8	M23x1.25	27	24	12	35.0	10
WG4PB12-1/2	12	G1/2	M23x1.25	27	27	14	40.0	10

67PPL Tube End Reducer



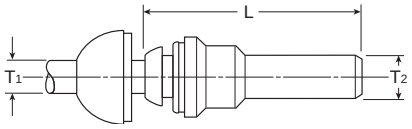
Part No.	Tube 1 Size	Tube 2 Size	L	Flow Dia. D
67PPL-2-5/32	1/8	5/32	1.76	0.120
67PPL-2-4	1/8	1/4	1.48	0.078
67PPL-5/32-4	5/32	1/4	1.32	0.125
67PPL-5/32-5	5/32	5/16	1.31	0.125
67PPL-5/32-6	5/32	3/8	1.64	0.125
67PPL-4-5	1/4	5/16	1.65	0.220
67PPL-4-6	1/4	3/8	1.76	0.220
67PPL-4-8	1/4	1/2	1.77	0.220
67PPL-5-6	5/16	3/8	1.81	0.220
67PPL-6-8	3/8	1/2	2.02	0.315

TRPB Tube End Reducer



Part No.	Tube 1 Size (mm)	Tube 2 Size (mm)	L (mm)
TRPB6-4	6	4	40.0
TRPB6-4	8	4	39.5
TRPB8-6	8	6	41.5
TRPB10-4	10	4	37.0
TRPB10-6	10	6	43.0
TRPB10-8	10	8	47.5
TRPB12-6	12	6	38.0
TRPB12-8	12	8	44.0
TRPB12-10	12	10	52.0
TRPB14-8	14	8	41.0
TRPB14-10	14	10	51.0
TRPB14-12	14	12	55.0

TR2PK Tube End Reducer

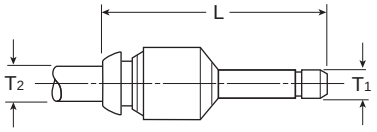


Part No.	Tube 1 Size (mm)	Tube 2 Size (mm)	L (mm)
TR2PK6-4	6	4	38
TR2PK6-4	8	4	36
TR2PK8-6	8	6	39
TR2PK10-4	10	4	41
TR2PK10-6	10	6	43
TR2PK10-8	10	8	47
TR2PK12-6	12	6	36
TR2PK12-8	12	8	38
TR2PK12-10	12	10	48
TR2PK14-8	14	8	39
TR2PK14-10	14	10	42
TR2PK14-12	14	12	51

N

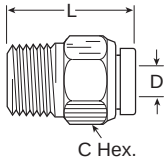
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Pneumatic Division
Richland, Michigan
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TEPB Tube End Expander



Part No.	Tube 1 Size (mm)	Tube 2 Size (mm)	L (mm)
TEPB4-6	4	6	39.0

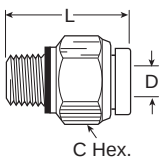
W68PLP Male Connector (Nickle Plated)



Part No.	Tube Size	Pipe Thread	C Hex.	L	Flow Dia. D
W68PLP-2-1	1/8	1/16	3/8	0.79	0.094
W68PLP-2-2	1/8	1/8	7/16	0.79	0.094
W68PLP-2-4	1/8	1/4	9/16	1.02	0.094
W68PLP-3-2	3/16	1/8	7/16	0.85	0.141
W68PLP-3-4	3/16	1/4	9/16	1.01	0.156
W68PLP-5/32-1	5/32	1/16		0.88	0.940
W68PLP-5/32-2	5/32	1/8	7/16	0.80	0.125
W68PLP-5/32-4	5/32	1/4	9/16	1.03	0.125
W68PLP-4-1	1/4	1/16	1/2	1.07	0.141
W68PLP-4-2	1/4	1/8	1/2	0.89	0.188
W68PLP-4-4	1/4	1/4	9/16	1.00	0.188
W68PLP-4-6	1/4	3/8	3/4	1.04	0.188
W68PLP-5-2	5/16	1/8	9/16	1.18	0.234
W68PLP-5-4	5/16	1/4	9/16	1.04	0.250
W68PLP-5-6	5/16	3/8	11/16	1.04	0.250
W68PLP-6-2	3/8	1/8	5/8	1.21	0.234
W68PLP-6-4	3/8	1/4	5/8	1.08	0.312
W68PLP-6-6	3/8	3/8	11/16	1.02	0.312
W68PLP-6-8	3/8	1/2	7/8	1.289	0.312
W68PLP-8-4	1/2	1/4	13/16	1.44	0.344
W68PLP-8-6	1/2	3/8	13/16	1.24	0.344
W68PLP-8-8	1/2	1/2	7/8	1.35	0.375
68PLP-5/32-4LT*	5/32	1/4-28	7/16	0.88	0.093

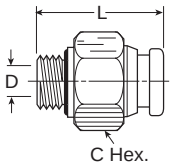
*SAE-LT Threads

68PLP-X-10x32 Male Connector (Nickle Plated)



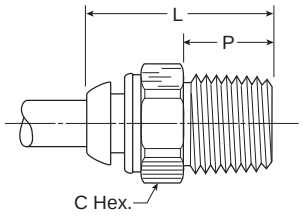
Part No.	Tube Size	Pipe Thread (NPTF)	C Hex.	L	Flow Dia. D
68PLP-2-0	1/8	10x32	3/8	0.92	0.094
68PLP-5/32-0	5/32	10x32			
68PLP-4-0	1/4	10x32	1/2	0.96	0.094

PLHBF4-B Male Connector BSPP



Part No.	Tube Size	Pipe Thread BSPP	C Hex.	L	Flow Dia. D
3-1/8PLHBF4-B	3/16	1/8-28	11/16	0.96	0.156
3-1/4PLHBF4-B	3/16	1/4-19	3/4	0.97	0.156
4-1/8PLHBF4-B	1/4	1/8-28	11/16	1.13	0.188
4-1/4PLHBF4-B	1/4	1/4/19	3/4	1.13	0.188
4-3/8PLHBF4-B	1/4	3/8-19	7/8	1.13	0.188
6-1/4PLHBF4-B	3/8	1/4-19	3/4	1.26	0.256
6-3/8PLHBF4-B	3/8	3/8-19	7/8	1.26	0.312
6-1/2PLHBF4-B	3/8	1/2-14	1-1/16	1.26	0.312
8-3/8PLHBF4-B	1/2	3/8-19	7/8	1.41	0.452
8-1/2PLHBF4-B	1/2	1/2-14	1-1/16	1.37	0.452

FPB Male Connector NPT

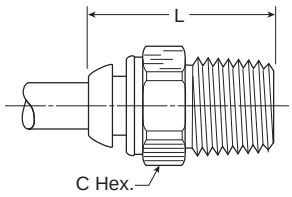


Part No.	Tube Size (mm)	Pipe Thread NPT	C Hex. (mm)	L (mm)	P (mm)	Int. Hex. (mm)
W68PLP-5/32-2	4	1/8-27	7/16"	21.7	9.7	—
W68PLP-5/32-4	4	1/4-18	9/16"	28.1	14.2	—
FPB6-1/8	6	1/8-27	14	26.0	10.1	4
FPB6-1/4	6	1/4-18	14	28.5	14.6	4
FPB10-1/4	10	1/4-18	19	40.0	14.6	8
FPB10-3/8	10	3/8-18	19	34.0	14.6	8
FPB12-3/8	12	3/8-18	22	36.5	14.6	10

N

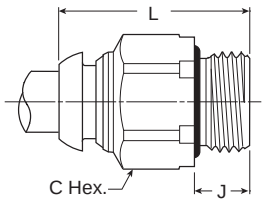
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F3PB Male Connector BSPT



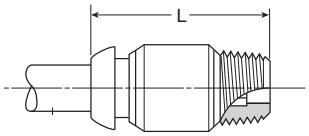
Part No.	Tube Size (mm)	Thread BSPT	C Hex. (mm)	L (mm)
F3PB4-1/8	4	1/8	12	20.5
F3PB4-1/4	4	1/4	14	23.0
F3PB5-1/8	5	1/8	11	22.5
F3PB5-1/4	5	1/4	14	28.5
F3PB6-1/8	6	1/8	14	24.0
F3PB6-1/4	6	1/4	14	24.0
F3PB8-1/8	8	1/8	17	28.0
F3PB8-1/4	8	1/4	17	28.5
F3PB8-3/8	8	3/8	17	26.5
F3PB10-1/4	10	1/4	19	35.5
F3PB10-3/8	10	3/8	19	33.0
F3PB10-1/2	10	1/2	22	31.0
F3PB12-1/4	12	1/4	22	36.5
F3PB12-3/8	12	3/8	22	36.0
F3PB12-1/2	12	1/2	22	36.0
F3PB14-3/8	14	3/8	24	39.0
F3PB14-1/2	14	1/2	24	37.0

F4PB Compact Male Connector BSPP



Part No.	Tube Size (mm)	Thread BSPP	C Hex. (mm)	J (mm)	L (mm)
F4PB4-1/8	4	1/8	13	6	21.7
F4PB4-1/4	4	1/4	16	9	23.2
F4PB6-1/8	6	1/8	13	6	25.3
F4PB6-1/4	6	1/4	16	9	26.0
F4PB8-1/8	8	1/8	14	6	27.4
F4PB8-1/4	8	1/4	16	9	27.4
F4PB8-3/8	8	3/8	20	9	28.0
F4PB10-1/4	10	1/4	17	9	35.4
F4PB10-3/8	10	3/8	20	9	31.4
F4PB10-1/2	10	1/2	24	12	30.3
F4PB12-1/4	12	1/4	20	9	36.0
F4PB12-3/8	12	3/8	20	9	35.7
F4PB12-1/2	12	1/2	24	12	34.1
F4PB14-3/8	14	3/8	22	9	38.3
F4PB14-1/2	14	1/2	24	12	37.4

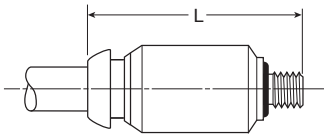
F23PB Male Connector BSPT



Part No.	Tube Size (mm)	Thread BSPT	L (mm)
F23PB4-1/8	4	1/8	21
F23PB6-1/8	6	1/8	24
F23PB6-1/4	6	1/4	28
F23PB8-1/8	8	1/8	28
F23PB8-1/4	8	1/4	28

This fitting has been designed for use where space is at a premium. It is assembled using the internal hexagon and an allen key.

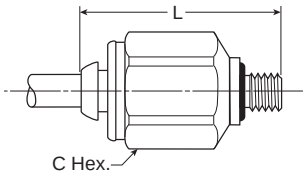
F28PB Male Connector Metric Straight Thread



Part No.	Tube Size (mm)	Straight Thread (mm)	L (mm)
F28PB4M3	4	M3x0.5	24
F28PB4M5	4	M5x0.8	26
F28PB6M5	6	M5x0.8	26

This fitting has been designed for use where space is at a premium. It is assembled using the internal hexagon and an allen key.

F8PB Male Connector Metric Straight Thread

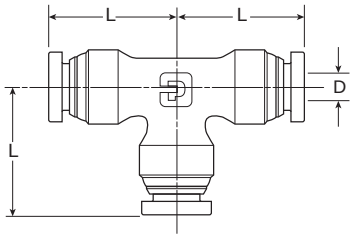


Part No.	Tube Size (mm)	Straight Thread (mm)	C Hex. (mm)	L (mm)
F8PB4M5	4	M3x0.8	12	25.5
F8PB4M10	4	M10x1	14	24.0
F8PB6M5	6	M5x0.8	14	26.0
F8PB6M10	6	M10x1	14	28.0
F8PB6M12	6	M12x1.5	17	30.0
F8PB8M12	8	M12x1.5	17	30.0
F8PB8M16	8	M16x1.5	22	28.0
F8PB8M22	6	M22x1.5	27	30.0

N

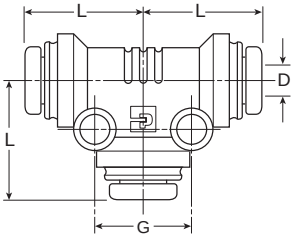
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164PLP Union Tee (Nickle Plated)



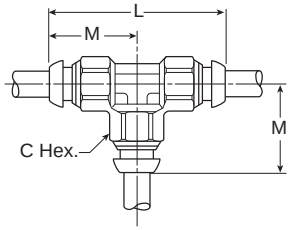
Part No.	Tube Size	L	Flow Dia. D
164PLP-2	1/8	0.74	0.094
164PLP-5/32	5/32	0.77	0.125
164PLP-3	3/16	0.82	0.156
164PLP-4	1/4	0.85	0.188
164PLP-5	5/16	0.97	0.250
164PLP-6	3/8	1.01	0.250
164PLP-8	1/2	1.15	0.375

364PL Union Tee (Composite Body)



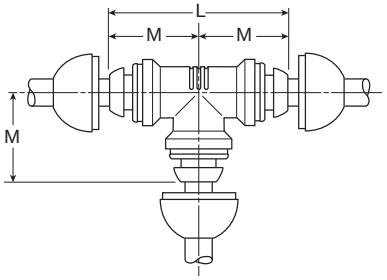
Part No.	Tube Size	Mounting Hole Dia.	L	G	Flow Dia. D
364PL-2	1/8	0.13	0.71	0.52	0.094
364PL-5/32	5/32	0.13	0.71	0.64	0.156
364PL-3	3/16	0.17	0.76	0.52	0.125
364PL-4	1/4	0.17	0.76	0.64	0.188
364PL-5	5/16	0.17	0.84	0.71	0.250
364PL-6	3/8	0.17	1.04	0.83	0.250
364PL-8	1/2	0.17	1.30	0.91	0.375

JPB Union Tee



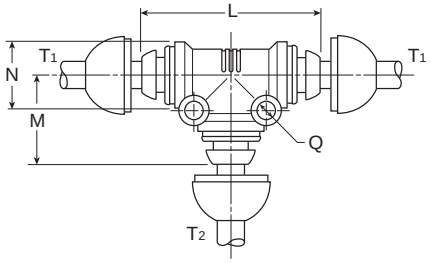
Part No.	Tube Size (mm)	C Hex. (mm)	L (mm)	M (mm)
JPB4	4	10	36	18
JPB5	5	12	41	21
JPB6	6	12	40	20
JPB8	8	14	44	22
JPB10	10	17	56	28
JPB12	12	22	60	30
JPB14	14	25	68	34

JPK Equal Tee



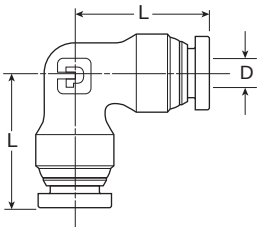
Part No.	Tube Size (mm)	L (mm)	M (mm)
JPK4	4	36	18.0
JPK6	6	41	20.5
JPK8	8	45	22.5
JPK10	10	57	28.5
JPK12	12	60	30.0
JPK14	14	67	33.5

JPK Unequal Tee



Part No.	Tube 1 Size (mm)	Tube 2 Size (mm)	L (mm)	M (mm)	N (mm)	Q (mm)
JPK6-6-4	6	4	41	21.5	15	17.0
JPK8-8-6	8	6	45	22.5	17	19.0
JPK10-10-8	10	8	57	28.5	21	23.5
JPK12-12-10	12	10	60	30.5	23	25.5
JPK4-4-6	4	6	43	20.5	15	17.0
JPK6-6-8	6	8	45	22.5	17	19.0
JPK8-8-10	8	10	57	28.5	21	23.5
JPK10-10-12	10	12	61	30.5	23	25.5

165PLP Union Elbow (Nickle Plated)

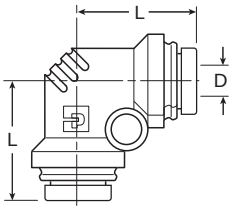


Part No.	Tube Size	L	Flow Dia. D
165PLP-2	1/8	0.74	0.094
165PLP-5/32	5/32	0.77	0.125
165PLP-3	3/16	0.82	0.156
165PLP-4	1/4	0.85	0.188
165PLP-5/32	5/32	0.97	0.250
165PLP-6	3/8	1.01	0.312
165PLP-8	1/2	1.15	0.375

N

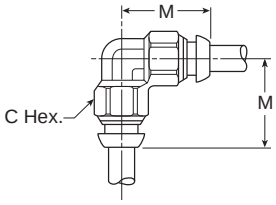
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365PL Union Elbow (Composite Body)



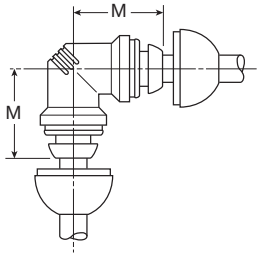
Part No.	Tube Size	Mounting Hole Dia.	L	Flow Dia. D
365PL-2	1/8	0.13	0.71	0.094
365PL-5/32	5/32	0.13	0.71	0.125
365PL-3	3/16	0.17	0.76	0.156
365PL-4	1/4	0.17	0.76	0.188
365PL-5	5/16	0.17	0.84	0.250
365PL-6	3/8	0.17	1.04	0.312
365PL-8	1/2	0.17	1.03	0.344

EPB 90°Union Elbow



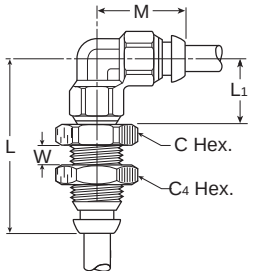
Part No.	Tube Size (mm)	C Hex. (mm)	M (mm)
EPB4	4	10	18.0
EPB5	5	12	20.5
EPB6	6	12	20.0
EPB8	8	14	22.0
EPB10	10	17	28.0
EPB12	12	22	30.0
EPB14	14	25	34.0

EPK Equal Elbow



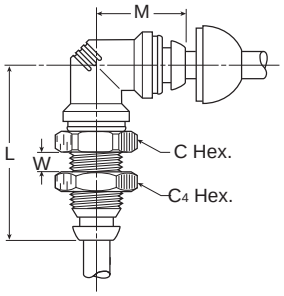
Part No.	Tube Size (mm)	M (mm)
EPK4	4	18.0
EPK6	6	20.5
EPK8	8	22.5
EPK10	10	28.5
EPK12	12	30.0
EPK14	14	33.5

WE6PB Adjustable Bulkhead Union Elbow



Part No.	Tube Size (mm)	Thread (mm)	C Hex. (mm)	C4 Hex. (mm)	L (mm)	L1 (mm)	M (mm)	W (mm)	Bulkhead Hole Dia. (mm)
WE6PB4	4	M11x0.75	14	16	41	18.0	18.0	6	11
WE6PB6	6	M13x1	17	17	45	19.5	20.5	6	13
WE6PB8	8	M15x1.25	19	19	57	21.5	22.5	6	15
WE6PB10	10	M18x1	22	22	60	22.8	28.5	8	18
WE6PB12	12	M23x1.5	27	27	43	30.0	30.0	10	23

WE6PK 90° Adjustable Bulkhead Union Elbow

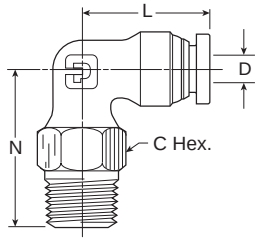


Part No.	Tube Size (mm)	Straight Thread (mm)	C Hex. (mm)	C4 Hex. (mm)	L (mm)	M (mm)	W (mm)	Bulkhead Hole Dia. (mm)
WE6PK4	4	M11x0.75	14	16	37	18.0	6	11
WE6PK6	6	M13x1	17	17	39	20.5	6	13
WE6PK8	8	M15x1.25	19	19	43	22.5	6	15
WE6PK10	10	M18x1	22	22	54	28.5	8	18
WE6PK12	12	M23x1.5	27	27	59	30.0	10	23

N

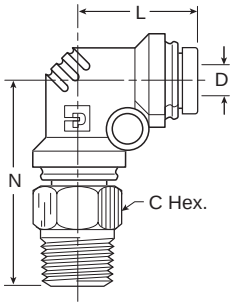
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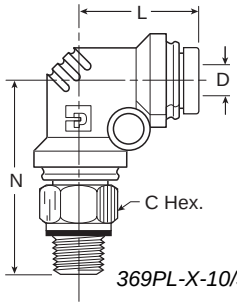
W169PLP Male Elbow Swivel 90° (Nickle Plated)



Part No.	Tube Size	Pipe Thread (NPTF)	C Hex.	L	N	Flow Dia. D
W169PLP-2-2	1/8	1/8	7/16	0.74	0.92	0.094
169PLP-2-0	1/8	10-32	3/8	0.74	0.74	0.094
W169PLP-2-4	1/8	1/4	9/16	0.74	1.10	0.094
W169PLP-3-2	3/16	1/8	7/16	0.82	0.92	0.156
W169PLP-5/32-2	5/32	1/8	7/16	0.77	0.92	0.125
W169PLP-5/32-4	5/32	1/4	9/16	0.77	1.10	0.125
169PLP5/32-0	5/32	10-32	3/8	0.85	0.74	0.188
W169PLP-4-2	1/4	1/8	7/16	0.85	0.92	0.188
W169PLP-4-4	1/4	1/4	9/16	0.85	1.10	0.188
W169PLP-4-6	1/4	3/8	11/16	0.85	1.19	0.188
169PLP-4-0	1/4	10-32	3/8	0.85	0.74	0.188
W169PLP-5-2	5/16	1/8	9/16	0.97	1.02	0.250
W169PLP-5-4	5/16	1/4	9/16	0.97	1.24	0.250
W169PLP-6-2	3/8	1/8	9/16	1.01	1.02	0.312
W169PLP-6-4	3/8	1/4	9/16	1.01	1.24	0.312
W169PLP-6-6	3/8	3/8	11/16	1.01	1.24	0.312
W169PLP-6-8	3/8	1/2	7/8	1.01	1.48	0.312
W169PLP-8-4	1/2	1/4	9/16	1.15	1.28	0.375
W169PLP-8-6	1/2	3/8	11/16	1.15	1.31	0.375
W169PLP-8-8	1/2	1/2	7/8	1.15	1.52	0.375

W369PL Male Elbow Swivel 90° (Composite Body)

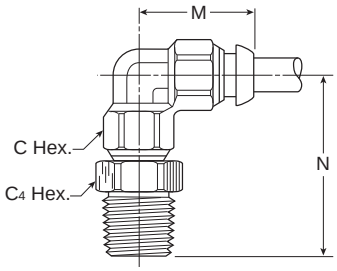




369PL-X-10/32

Part No.	Tube Size	Pipe Thread (NPTF)	C Hex.	Mounting Hole Dia.	L	N	Flow Dia. D
W369PL-2-1	1/8	1/16	3/8	0.13	0.71	1.08	0.078
W369PL-2-2	1/8	1/8	7/16	0.13	0.71	1.14	0.078
369PL-2-10x32	1/8	10-32	3/8	0.13	0.71	0.94	0.078
W369PL-2-4	1/8	1/4	9/16	0.13	0.71	1.32	0.078
W369PL-3-2	3/16	1/8	7/16	0.17	0.76	1.20	0.147
W369PL-3-4	3/16	1/4	9/16	0.17	0.76	1.44	0.147
W369PL-5/32-2	5/32	1/8	7/16	0.13	0.74	1.14	0.094
W369PL-5/32-4	5/32	1/4	9/16	0.13	0.74	1.32	0.094
369PL5/32-10x32	5/32	10-32	3/8	0.13	0.74	0.94	0.094
W369PL-4-1	1/4	1/16	7/16	0.17	0.76	1.20	0.094
W369PL-4-2	1/4	1/8	7/16	0.17	0.76	1.20	0.172
W369PL-4-4	1/4	1/4	9/16	0.17	0.76	1.38	0.172
W369PL-4-6	1/4	3/8	11/16	0.17	0.76	1.42	0.172
369PL-4-10x32	1/4	10-32	7/16	0.17	0.76	1.05	0.094
W369PL-5-2	5/16	1/8	9/16	0.17	0.84	1.23	0.234
W369PL-5-4	5/16	1/4	9/16	0.17	0.84	1.46	0.234
W369PL-6-2	3/8	1/8	9/16	0.17	1.04	1.48	0.234
W369PL-6-4	3/8	1/4	5/8	0.17	1.04	1.66	0.234
W369PL-6-6	3/8	3/8	11/16	0.17	1.04	1.66	0.297
W369PL-6-8	3/8	1/2	7/8	0.17	1.04	1.85	0.297
W369PL-8-4	1/2	1/4	3/4	0.17	1.03	1.80	0.314
W369PL-8-6	1/2	3/8	3/4	0.17	1.03	1.80	0.375
W369PL-8-8	1/2	1/2	7/8	0.17	1.03	1.99	0.375

C6PB Adjustable Male Elbow NPT

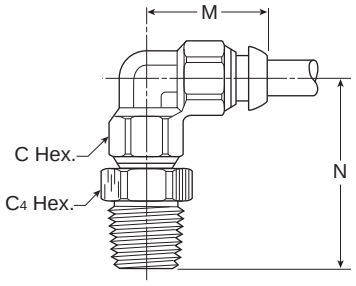


Part No.	Tube Size (mm)	Pipe Thread (NPT)	C Hex. (mm)	C_4 Hex. (mm)	M (mm)	N (mm)
C6PB6-1/4	6	1/4-18	12	14	20	36.0
C6PB6-3/8	6	3/8-18	12	19	20	36.5
C6PB10-1/4	10	1/4-18	17	16	28	41.5
C6PB10-3/8	10	3/8-18	17	19	28	41.5
C6PB12-3/8	12	3/8-18	17	19	30	44.0
C6PB12-1/2	12	1/2-14	22	22	30	47.5

N

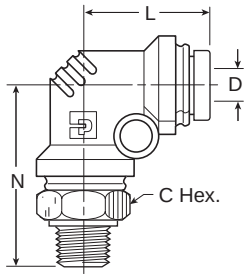
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C63PB Adjustable Male Elbow BSPT



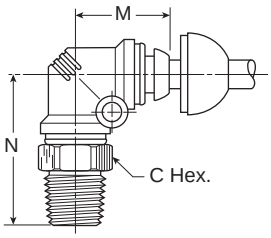
Part No.	Tube Size (mm)	Pipe Thread (BSPT)	C Hex. (mm)	M (mm)	N (mm)	Flow Dia. D (mm)
C63PB4-1/8	4	1/8	10	10	18	26.5
C63PB4-1/4	4	1/4	10	14	18	30.0
C63PB6-1/8	6	1/8	12	11	20	28.0
C63PB6-1/4	6	1/4	12	14	20	31.0
C63PB8-1/8	8	1/8	14	14	22	30.0
C63PB8-1/4	8	1/4	14	14	22	33.0
C63PB8-3/8	8	3/8	14	17	22	34.5
C63PB10-1/4	10	1/4	17	17	28	40.0
C63PB10-3/8	10	3/8	17	17	28	39.0
C63PB12-1/4	12	1/4	22	19	30	42.0
C63PB12-3/8	12	3/8	22	19	30	41.0
C63PB12-1/2	12	1/2	22	22	30	44.5
C63PB14-3/8	14	3/8	25	22	34	46.0
C63PB14-1/2	14	1/2	25	22	34	48.5

PLE2BF4-K Male Elbow BSPP (Composite Body)



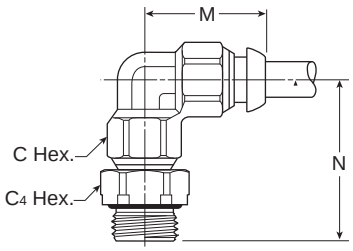
Part No.	Tube Size	Pipe Thread (BSPP)	Mounting Hole Dia.	C Hex.	L	N	Flow Dia. D
3-1/8PLE2BF4-K	3/16	1/8-28	11/16	0.17	0.76	1.17	0.147
3-1/4PLE2BF4-K	3/16	1/4-19	3/4	0.17	0.76	1.31	0.147
4-1/8PLE2BF4-K	1/4	1/8-28	11/16	0.17	0.76	1.06	0.177
4-1/4PLE2BF4-K	1/4	1/4-19	3/4	0.17	0.76	1.31	0.172
4-3/8PLE2BF4-K	1/4	3/8-19	7/8	0.17	0.76	1.31	0.182
6-1/4PLE2BF4-K	3/8	1/4-19	3/4	0.17	1.04	1.57	0.297
6-3/8PLE2BF4-K	3/8	3/8-19	7/8	0.17	1.04	1.68	0.297
6-1/2PLE2BF4-K	3/8	1/2-14	1-1/16	0.17	1.04	1.83	0.297
8-3/8PLE2BF4-K	1/2	3/8-19	7/8	0.17	1.03	1.63	0.344
8-1/2PLE2BF4-K	1/2	1/2-14	1-1/16	0.17	1.03	1.78	0.344

C63PK Adjustable Male Elbow BSPT



Part No.	Tube Size (mm)	Thread (BSPT)	C Hex. (mm)	M (mm)	N (mm)
C63PK4-1/8	4	1/8	10	18.0	25.5
C63PK4-1/4	4	1/4	14	18.0	29.0
C63PK6-1/8	6	1/8	11	20.5	27.0
C63PK6-1/4	6	1/4	14	20.5	30.5
C63PK8-1/8	8	1/8	14	22.5	29.5
C63PK8-1/4	8	1/4	14	22.5	32.5
C63PK8-3/8	8	3/8	17	28.5	40.0
C63PK10-1/4	10	1/4	17	28.5	40.0
C63PK10-3/8	10	3/8	17	28.5	39.0
C63PK12-1/4	12	1/4	19	30.0	41.5
C63PK12-3/8	12	3/8	19	30.0	41.0
C63PK12-1/2	12	1/2	22	30.0	44.5
C63PK14-3/8	14	3/8	22	33.5	45.5
C63PK14-1/2	14	1/2	22	33.5	48.0

C64PB Adjustable Male Elbow BSPP

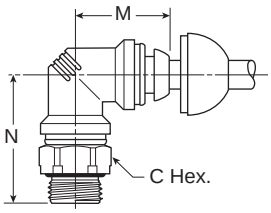


Part No.	Tube Size (mm)	Thread (BSPP)	C Hex. (mm)	C4 Hex. (mm)	M (mm)	N (mm)
C64PB4-1/8	4	1/8	10	14	18	26.5
C64PB4-1/4	4	1/4	10	19	18	31.5
C64PB6-1/8	6	1/8	12	14	20	30.0
C64PB6-1/4	6	1/4	12	19	20	33.0
C64PB8-1/8	8	1/8	14	14	22	30.0
C64PB8-1/4	8	1/4	14	19	22	35.0
C64PB8-3/8	8	3/8	14	22	22	36.0
C64PB10-1/4	10	1/4	17	19	28	39.0
C64PB10-3/8	10	3/8	17	22	28	40.0
C64PB12-1/4	12	1/4	22	19	30	41.0
C64PB12-3/8	12	3/8	22	22	30	42.0
C64PB14-3/8	14	3/8	25	22	34	46.0
C64PB14-1/2	14	1/2	25	27	34	50.5

N

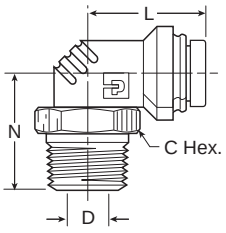
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Richland, Michigan
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C64PK Adjustable Male Elbow BSPP



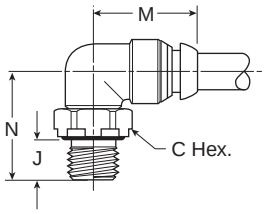
Part No.	Tube Size (mm)	Thread (BSPP)	C Hex. (mm)	M (mm)	N (mm)
C64PK4-1/8	4	1/8	14	18.0	25.5
C64PK4-1/4	4	1/4	19	18.0	30.5
C64PK6-1/8	6	1/8	14	20.5	27.0
C64PK6-1/4	6	1/4	19	20.5	32.0
C64PK8-1/8	8	1/8	14	22.5	29.0
C64PK8-1/4	8	1/4	19	22.5	34.0
C64PK8-3/8	8	3/8	22	22.5	35.0
C64PK10-1/4	10	1/4	19	28.5	39.0
C64PK10-3/8	10	3/8	22	28.5	40.0
C64PK12-1/4	12	1/4	19	30.0	40.5
C64PK12-3/8	12	3/8	22	30.0	41.5
C64PK14-3/8	14	3/8	22	33.5	45.0
C64PK14-1/2	14	1/2	27	33.5	49.5

W369PLC Compact Male Elbow



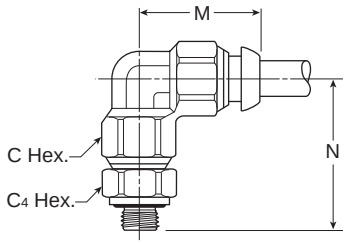
Part No.	Tube Size	Pipe Thread (NPTF)	C Hex.	L	N	Flow Dia. D
W369PLC-2-2	1/8	1/8	7/16	0.81	0.71	0.08
W369PLC-5/32-2	5/32	1/8	7/16	0.83	0.71	0.08
W369PLC-5/32-4	5/32	1/4	9/16	0.83	0.89	0.08
W369PLC-3-2	3/16	1/8	7/16	0.86	0.81	0.08
W369PLC-4-2	1/4	1/8	7/16	0.86	0.81	0.08
W369PLC-5-4	5/16	1/4	9/16	0.94	0.97	0.11
W369PLC-6-4	3/8	1/4	5/8	1.13	1.07	0.20
W369PLC-6-6	3/8	3/8	3/4	1.13	1.15	0.20

C64SPB Adjustable Male Elbow BSPP



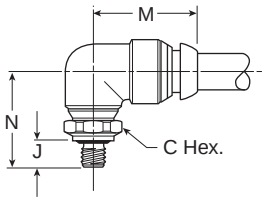
Part No.	Tube Size (mm)	Thread (BSPP)	C Hex. (mm)	J (mm)	M (mm)	N (mm)
C64SPB4-1/8	4	1/8	13	6	17	18.0
C64SPB6-1/8	6	1/8	13	6	22	18.0
C64SPB6-1/4	6	1/4	16	9	22	21.5
C64SPB8-1/8	8	1/8	13	6	25	18.0
C64SPB8-1/4	8	1/4	16	9	25	21.0
C64SPB8-3/8	8	3/8	19	9	25	21.0
C64SPB10-1/4	10	1/4	16	9	30	23.0
C64SPB10-3/8	10	3/8	19	9	30	23.0
C64SPB12-1/4	12	1/8	16	9	32	24.0
C64SPB12-3/8	12	3/8	19	9	32	24.0
C64SPB12-1/2	12	1/2	24	12	32	29.0

C68PB Adjustable Male Elbow Metric Straight Thread



Part No.	Tube Size (mm)	Straight Thread (mm)	C Hex. (mm)	C4 Hex. (mm)	M (mm)	N (mm)
C68PB4M3	4	M3x0.5	10	10	18	23.0
C68PB4M5	4	M5x0.8	10	10	18	24.5
C68PB6M5	6	M5x0.8	12	11	20	25.5

C68SPB Compact Adjustable Male Elbow Metric Straight Thread

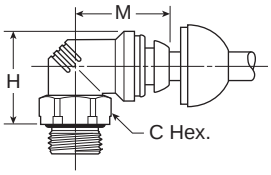


Part No.	Tube Size (mm)	Straight Thread (mm)	C Hex. (mm)	C4 Hex. (mm)	M (mm)	N (mm)
C68SPB4M5	4	M5x0.8	12.5	5	17	18
C68SPB6M5	6	M5x0.8	12.5	5	17	18

N

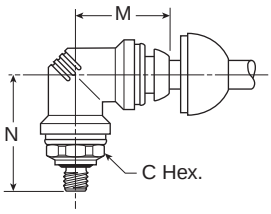
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C64SPK Compact Adjustable Male Elbow BSPP



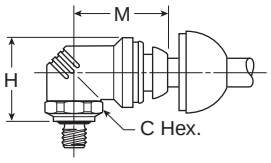
Part No.	Tube Size (mm)	Thread (BSPP)	C Hex. (mm)	H (mm)	M (mm)
C64SPK4-1/8	4	1/8	14	16.7	20.5
C64SPK4-1/4	4	1/4	19	17.4	20.5
C64SPK6-1/8	6	1/8	14	17.9	23.0
C64SPK6-1/4	6	1/4	19	19.4	23.0
C64SPK8-1/8	8	1/8	14	18.9	25.0
C64SPK8-1/4	8	1/4	19	20.4	25.0
C64SPK8-3/8	8	3/8	22	21.9	25.0

C68PK Adjustable Male Elbow Metric Straight Thread



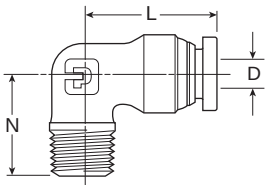
Part No.	Tube Size (mm)	Thread (BSPP)	C Hex. (mm)	M (mm)	N (mm)
C68PK4M3	4	M3x0.5	10	18.0	22.0
C68PK4M5	4	M5x0.8	10	18.0	23.5
C68PK6M5	6	M5x0.8	11	20.5	25.0
C68PK8M12	8	M12x1.5	17	22.5	35.0
C68PK8M16	8	M16x1.5	22	22.5	35.0
C68PK8M22	8	M22x1.5	27	22.5	39.0
C68PK10M12	10	M12x1.5	17	30.0	40.0

C68SPK Compact Adjustable Male Elbow Metric Straight Thread



Part No.	Tube Size (mm)	Thread (BSPP)	C Hex. (mm)	H (mm)	M (mm)
C68SPK4M53	4	M5x0.8	10	15.5	20.5

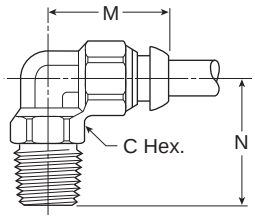
W169PLPNS Male Elbow 90° (Nickle Plated)



Part No.	Tube Size	Pipe Thread (NPTF)	L	N	Flow Dia. D
W169PLPNS-2-2	1/8	1/8	0.74	0.67	0.094
W169PLPNS5/32-2	5/32	1/8	0.77	0.67	0.125
W169PLPNS5/32-4	5/32	1/4	0.77	0.87	0.125
W169PLPNS-4-2	1/4	1/8	0.85	0.67	0.188
W169PLPNS-4-4	1/4	1/4	0.85	0.87	0.188
W169PLPNS-5-2	5/16	1/8	0.97	0.75	0.250
W169PLPNS-5-4	5/16	1/4	0.97	0.94	0.250
W169PLPNS-6-4	3/8	1/4	1.01	0.94	0.312
W169PLPNS-6-6	3/8	3/8	1.01	1.01	0.312
W169PLPNS-6-8	3/8	1/2	1.01	1.27	0.312
W169PLPNS-8-6	1/2	3/8	1.15	1.00	0.375
W169PLPNS-8-8	1/2	1/2	1.15	1.27	0.375
169PLPNS-5/32-4LT*	5/32	1/4-28	0.60	0.48	0.090

* SAE-LT Threads

C3PB Compact Elbow BSPT

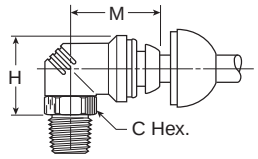


Part No.	Tube Size (mm)	Thread (BSPT)	C Hex. (mm)	M (mm)	N (mm)
C3PB4-1/8	4	1/8	14	18	21
C3PB6-1/8	6	1/8	14	20	21
C3PB6-1/4	6	1/4	14	20	21
C3PB8-1/8	8	1/8	14	22	23
C3PB8-1/4	8	1/4	14	22	23
C3PB10-1/4	10	1/4	17	28	26
C3PB10-3/8	10	3/8	17	28	26
C3PB12-3/8	12	3/8	17	30	27
C3PB12-1/2	12	1/2	17	30	31
C3PB14-3/8	14	3/8	20	34	30
C3PB14-1/2	14	1/2	20	34	33

N

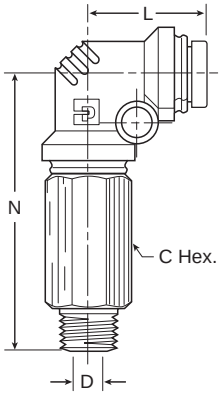
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C63SPK Adjustable Male Elbow BSPT



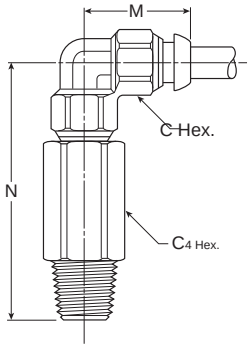
Part No.	Tube Size (mm)	Thread (BSPT)	C Hex. (mm)	H (mm)	M (mm)
C63SPK4-1/8	4	1/8	10	14.5	20.5
C63SPK4-1/4	4	1/4	14	14.5	20.5
C63SPK6-1/8	6	1/8	11	16.5	23.0
C63SPK6-1/4	6	1/4	14	16.0	23.0
C63SPK8-1/8	8	1/8	14	19.5	25.0
C63SPK8-1/4	8	1/4	14	18.5	25.0
C63SPK8-3/8	8	3/8	17	18.5	25.0
C63SPK10-1/4	10	1/4	17	23.0	31.0
C63SPK10-3/8	10	3/8	17	22.5	31.0
C63SPK10-1/2	10	1/2	22	24.0	31.0

W369PLX Male Elbow Swivel 90° (Composite Body)



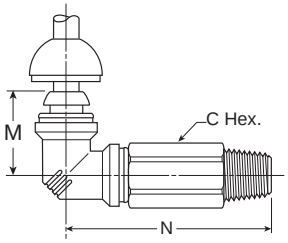
Part No.	Tube Size	Pipe Thread (NPTF)	C Hex.	Mounting Hole Dia.	L	N	Flow Dia. D
W369PLX-2-2	1/8	1/8	7/16	0.13	0.70	1.74	.078
W369PLX-2-4	1/8	1/4	9/16	0.13	0.70	1.74	.078
W369PLX-3-2	3/16	1/8	7/16	0.17	0.76	1.88	.147
W369PLX-3-4	3/16	1/4	9/16	0.17	0.76	1.88	.147
W369PLX-3-6	3/16	3/8	11/16	0.17	0.76	1.88	.147
W369PLX-4-2	1/4	1/8	7/16	0.17	0.76	1.88	.172
W369PLX-4-4	1/4	1/4	9/16	0.17	0.76	1.88	.170
W369PLX-4-6	1/4	3/8	11/16	0.17	0.76	1.88	.172
369PLX-5/32-0	5/32	10-32	3/8	0.13	0.73	1.54	.094
W369PLX-5/32-2	5/32	1/8	7/16	0.13	0.73	1.54	.094
W369PLX-5/32-4	5/32	1/4	9/16	0.13	0.73	1.54	.094
W369PLX-5-2	5/16	1/8	9/16	0.17	0.84	1.99	.234
W369PLX-5-4	5/16	1/4	9/16	0.17	0.84	1.99	.234
W369PLX-5-6	5/16	3/8	11/16	0.17	0.84	1.99	.234
W369PLX-6-4	3/8	1/4	5/8	0.17	1.04	2.56	.234
W369PLX-6-6	3/8	3/8	11/16	0.17	1.04	2.56	.297
W369PLX-6-8	3/8	1/2	7/8	0.17	1.04	2.56	.297
W369PLX-8-4	1/2	1/4	3/4	0.17	1.03	2.80	.314
W369PLX-8-6	1/2	3/8	3/4	0.17	1.03	2.80	.344
W369PLX-8-8	1/2	1/2	7/8	0.17	1.03	2.80	.344

C63LPB Adjustable Extended Male Elbow BSPT



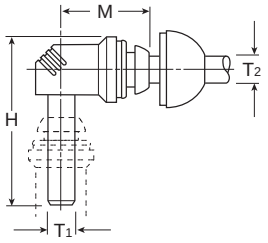
Part No.	Tube Size (mm)	Thread BSPT	C Hex. (mm)	C4 Hex. (mm)	M (mm)	N (mm)
C63LPB4-1/8	4	1/8	10	10	18	42.0
C63LPB4-1/4	4	1/4	10	14	18	46.0
C63LPB6-1/8	6	1/8	12	11	20	45.5
C63LPB6-1/4	6	1/4	12	14	20	49.5
C63LPB8-1/8	8	1/8	14	14	22	50.0
C63LPB8-1/4	8	1/4	14	14	22	52.5

C63LPK Adjustable Male Elbow BSPT



Part No.	Tube Size (mm)	Thread BSPT	C Hex. (mm)	M (mm)	N (mm)
C63LPK4-1/8	4	1/8	10	18.0	41.0
C63LPK4-1/4	4	1/4	14	18.0	45.0
C63LPK6-1/8	6	1/8	11	20.5	45.0
C63LPK6-1/4	6	1/4	14	20.5	49.0
C63LPK8-1/8	8	1/8	14	22.5	49.5
C63LPK8-1/4	8	1/4	14	22.5	52.0

T2ESPK Compact Plug-In Elbow

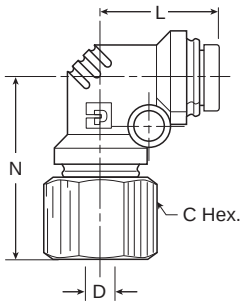


Part No.	Tube 1 Size (mm)	Tube 2 Size (mm)	H (mm)	M (mm)
T2ESPK4	4	4	20.5	31
T2ESPK6	6	6	23.0	36
T2ESPK4-6	4	6	23.0	33
T2ESPK8	8	8	25.0	38

N

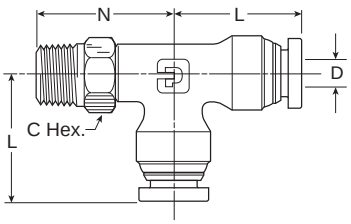
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370PL Female Elbow Swivel (Composite Body)



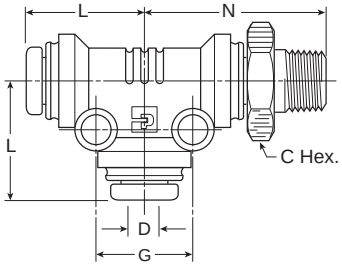
Part No.	Tube Size	Pipe Thread (NPTF)	C Hex.	Mounting Hole Dia.	L	N	Flow Dia. D
370PL-2-2	1/8	1/8	9/16	0.13	0.71	1.01	0.078
370PL-5/32-2	5/32	1/8	9/16	0.13	0.73	1.01	0.094
370PL-5/32-4	5/32	1/4	3/4	0.13	0.73	1.23	0.094
370PL-4-10x32	1/4	10x32	7/16	0.17	0.76	1.02	0.159
370PL-4-2	1/4	1/8	9/16	0.17	0.76	1.07	0.174
370PL-4-4	1/4	1/4	3/4	0.17	0.76	1.29	0.174
370PL-5-4	5/16	1/4	3/4	0.17	0.84	1.37	0.234
370PL-6-4	3/8	1/4	3/4	0.17	1.04	1.57	0.297
370PL-8-6	1/2	3/8	7/8	0.17	1.03	1.57	0.344

W171PLP Male Run Tee Swivel (Nickle Plated)



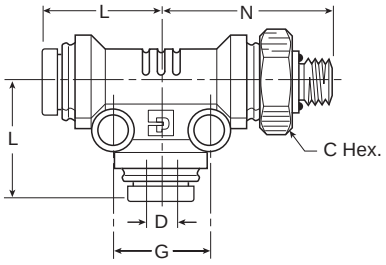
Part No.	Tube Size	Pipe Thread (NPTF)	C Hex.	L	N	Flow Dia. D
W171PLP-2-2	1/8	1/8	7/16	0.74	0.92	0.094
W171PLP-5/32-2	5/32	1/8	7/16	0.77	0.92	0.125
W171PLP-4-2	1/4	1/8	7/16	0.85	0.92	0.188
W171PLP-4-4	1/4	1/4	9/16	0.85	1.10	0.188
W171PLP-4-6	1/4	3/8	11/16	0.85	1.24	0.188
W171PLP-5-2	5/16	1/8	9/16	0.97	1.02	0.250
W171PLP-5-4	5/16	1/4	9/16	0.97	1.24	0.250
W171PLP-6-4	3/8	1/4	9/16	1.01	1.24	0.250
W171PLP-6-6	3/8	3/8	11/16	1.01	1.24	0.250
W171PLP-8-6	1/2	3/8	11/16	1.15	1.31	0.375
W171PLP-8-8	1/2	1/2	7/8	1.15	1.52	0.375

W371PL Male Run Tee Swivel (Composite Body)



Part No.	Tube Size	Pipe Thread (NPTF)	C Hex.	Mounting Hole Dia.	L	N	G	Flow Dia. D
W371PL-2-1	1/8	1/16	3/8	0.13	0.71	1.08	0.52	.078
W371PL-2-2	1/8	1/8	7/16	0.13	0.71	1.14	0.52	.078
W371PL-2-4	1/8	1/4	9/16	0.13	0.71	1.32	0.52	.078
371PL-2-10x32	1/8	10-32	3/8	0.13	0.71	0.94	0.52	.078
W371PL-3-2	3/16	1/8	7/16	0.17	0.76	1.20	0.64	.147
W371PL-3-4	3/16	1/4	9/16	0.17	0.76	1.43	0.64	.147
W371PL-5/32-2	5/32	1/8	7/16	0.13	0.71	1.14	0.52	.094
W371PL-5/32-4	5/32	1/4	9/16	0.13	0.71	1.32	0.52	.094
371PL5/32-10x32	5/32	10-32	3/8	0.13	0.71	0.94	0.52	.094
W371PL-4-1	1/4	1/16	7/16	0.17	0.76	1.20	0.64	.094
W371PL-4-2	1/4	1/8	7/16	0.17	0.76	1.20	0.64	.172
W371PL-4-4	1/4	1/4	9/16	0.17	0.76	1.38	0.64	.172
371PL-4-10x32	1/4	10-32	7/16	0.13	0.76	1.05	0.64	.094
W371PL-4-6	1/4	3/8	11/16	0.17	0.76	1.42	0.64	.172
W371PL-5-2	5/16	1/8	9/16	0.17	0.84	1.28	0.71	.234
W371PL-5-4	5/16	1/4	9/16	0.17	0.84	1.46	0.71	.234
W371PL-6-2	3/8	1/8	9/16	0.13	1.04	1.48	0.83	.234
W371PL-6-4	3/8	1/4	5/8	0.17	1.04	1.66	0.83	.297
W371PL-6-6	3/8	3/8	11/16	0.17	1.04	1.66	0.83	.297
W371PL-6-8	3/8	1/2	7/8	0.13	1.04	1.85	0.83	.297
W371PL-8-4	1/2	1/4	3/4	0.17	1.30	2.07	0.99	.314
W371PL-8-6	1/2	3/8	3/4	0.17	1.30	2.07	0.99	.344
W371PL-8-8	1/2	1/2	7/8	0.17	1.30	2.26	0.99	.344

PRL2BF4-K Male Run Tee Swivel BSPP (Composite Body)

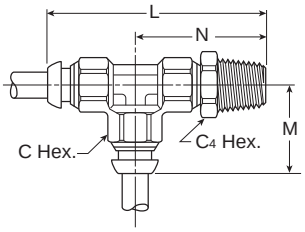


Part No.	Tube Size	Pipe Thread (BSPP)	C Hex.	Mounting Hole Dia.	L	N	G	Flow Dia. D
3-1/4PLR2BF4-K	3/16	1/4-19	3/4	0.17	0.76	1.31	0.64	0.147
4-1/8PLR2BF4-K	1/4	1/8-28	11/16	0.17	0.76	1.06	0.64	0.177
4-1/4PLR2BF4-K	1/4	1/4-19	3/4	0.17	0.76	1.31	0.64	0.172
6-1/4PLR2BF4-K	3/8	1/4-19	3/4	0.17	1.04	1.56	0.83	0.296
6-3/8PLR2BF4-K	3/8	3/8-19	7/8	0.17	1.04	1.68	0.83	0.296
8-3/8PLR2BF4-K	1/2	3/8-19	7/8	0.17	1.30	1.90	0.99	0.344
8-1/2PLR2BF4-K	1/2	1/2-19	1-1/16	0.17	1.30	2.05	0.99	0.344

N

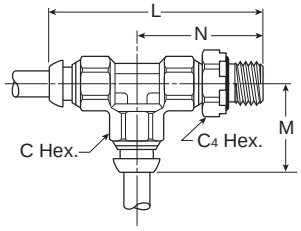
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R63PB Swivel Male Run Tee BSPT



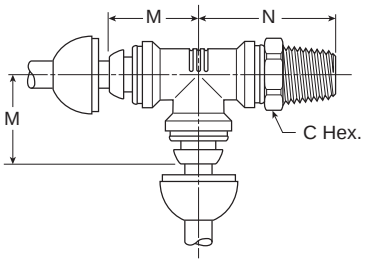
Part No.	Tube Size (mm)	Thread BSPT	C Hex. (mm)	C4 Hex. (mm)	L (mm)	M (mm)	N (mm)
R63PB4-1/8	4	1/8	10	10	44.5	18	26.5
R63PB4-1/4	4	1/4	10	14	48.0	18	30.0
R63PB6-1/8	6	1/8	12	11	48.0	20	28.0
R63PB6-1/4	6	1/4	12	14	51.0	20	31.0
R63PB8-1/8	8	1/8	14	14	52.0	22	30.0
R63PB8-1/4	8	1/4	14	14	55.0	22	33.0
R63PB8-3/8	8	3/8	14	17	56.5	22	34.5
R63PB10-1/4	10	1/4	17	17	68.0	28	40.0
R63PB10-3/8	10	3/8	17	17	67.0	28	39.0
R63PB12-1/4	12	1/4	22	19	72.0	30	42.0
R63PB12-3/8	12	3/8	22	19	71.0	30	41.0
R63PB12-1/2	12	1/2	22	22	74.5	30	44.5
R63PB14-3/8	14	3/8	25	22	80.0	34	46.0
R63PB14-1/2	14	1/2	25	22	82.5	34	48.5

R64PB Swivel Male Branch Run Tee BSPP



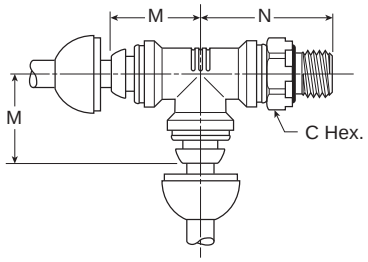
Part No.	Tube Size (mm)	Thread BSPT	C Hex. (mm)	C4 Hex. (mm)	L (mm)	M (mm)	N (mm)
R64PB4-1/8	4	1/8	10	14	6	44.5	18
R64PB4-1/4	4	1/4	10	19	9	49.5	18
R64PB6-1/8	6	1/8	12	14	6	50.0	20
R64PB6-1/4	6	1/4	12	19	9	53.0	20
R64PB8-1/8	8	1/8	14	14	6	52.0	22
R64PB8-1/4	8	1/4	14	19	9	57.0	22
R64PB8-3/8	8	3/8	14	22	9	58.0	22
R64PB10-1/4	10	1/4	17	19	9	67.0	28
R64PB10-3/8	10	3/8	17	22	9	68.0	28
R64PB12-1/4	12	1/4	22	19	9	71.0	30
R64PB12-3/8	12	3/8	22	22	9	72.0	30
R64PB14-3/8	14	3/8	25	22	9	80.0	34
R64PB14-1/2	14	1/2	25	27	12	84.5	34

R63PK Adjustable Male Run Tee BSPT



Part No.	Tube Size (mm)	Thread BSPT	C Hex. (mm)	M (mm)	N (mm)
R63PK4-1/8	4	1/8	10	18.0	25.5
R63PK4-1/4	4	1/4	14	18.0	29.0
R63PK6-1/8	6	1/8	11	20.5	27.0
R63PK6-1/4	6	1/4	14	20.5	30.5
R63PK8-1/8	8	1/8	14	22.5	29.5
R63PK8-1/4	8	1/4	14	22.5	32.5
R63PK8-3/8	8	3/8	17	22.5	34.0
R63PK10-1/4	10	1/4	17	28.5	40.0
R63PK10-3/8	10	3/8	17	28.5	39.0
R63PK12-1/4	12	1/4	19	30.0	41.5
R63PK12-3/8	12	3/8	19	30.0	41.0
R63PK12-1/2	12	1/2	22	30.0	44.5
R63PK14-3/8	14	3/8	22	33.5	45.5
R63PK14-1/2	14	1/2	22	33.5	48.0

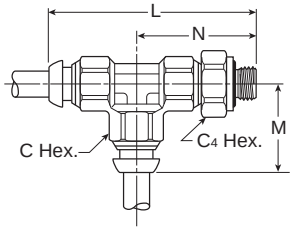
R64PK Adjustable Male Run Tee BSPP



Part No.	Tube Size (mm)	Thread BSPT	C Hex. (mm)	M (mm)	N (mm)
R64PK4-1/8	4	1/8	14	18.0	25.5
R64PK4-1/4	4	1/4	19	18.0	30.5
R64PK6-1/8	6	1/8	14	20.5	27.0
R64PK6-1/4	6	1/4	19	20.5	32.0
R64PK8-1/8	8	1/8	14	22.5	29.0
R64PK8-1/4	8	1/4	19	22.5	34.0
R64PK8-3/8	8	3/8	22	22.5	35.0
R64PK10-1/4	10	1/4	19	28.5	39.0
R64PK10-3/8	10	3/8	22	28.5	40.0
R64PK12-1/4	12	1/4	19	30.0	40.5
R64PK12-3/8	12	3/8	22	30.0	41.5
R64PK14-3/8	14	3/8	22	33.5	45.0
R64PK14-1/2	14	1/2	27	33.5	49.5

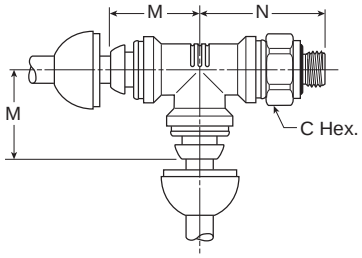
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R68PB Adjustable Male Run Tee Metric Straight Thread



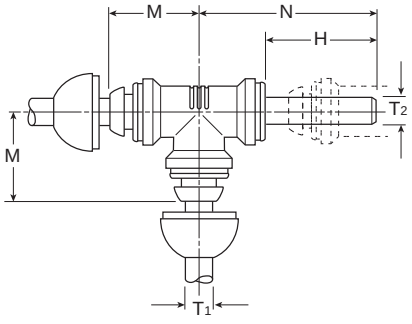
Part No.	Tube Size (mm)	Thread BSPT	C Hex. (mm)	C4 Hex. (mm)	L (mm)	M (mm)	N (mm)
R68PB4M3	4	M3x0.5	10	10	41.0	18	23.0
R68PB4M5	4	M5x0.8	10	10	42.5	18	24.5
R68PB6M5	6	M5x0.8	12	11	45.5	20	25.5

R68PK Adjustable Male Run Tee Metric Straight Thread



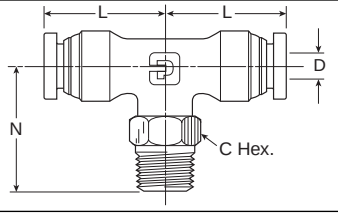
Part No.	Tube Size (mm)	Thread BSPT	C Hex. (mm)	M (mm)	N (mm)
R68PK4M3	4	M3x0.5	10	18.0	22.0
R68PK4M5	4	M5x0.8	10	18.0	23.5
R68PK6M5	6	M5x0.8	11	20.5	25.0
R68PK8M12	8	M12x1.5	17	22.5	35.0
R68PK8M16	8	M16x1.5	22	22.5	35.0
R68PK8M22	8	M22x1.5	27	22.5	39.0

T2JJPK Plug-In Run Tee



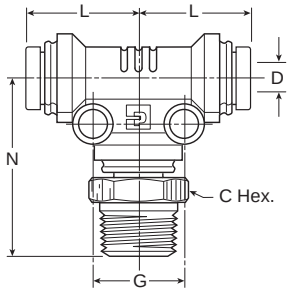
Part No.	Tube 1 Size (mm)	Tube 2 Size (mm)	Mounting Hole Dia. (mm)	H (mm)	M (mm)	N (mm)
T2JJPK4	4	4	3.2	19.5	18.0	33.5
T2JJPK6	6	6	4.2	21.0	20.5	36.5
T2JJPK8	8	8	4.2	22.0	22.5	39.5

W172PLP Male Branch Tee Swivel (Nickle Plated)



Part No.	Tube Size	Pipe Thread NPT	C Hex.	L	N	Flow Dia. D
W172PLP-2-2	1/8	1/8	7/16	0.74	0.92	0.094
W172PLP-3-2	3/16	1/8	7/16	0.82	0.92	0.156
W172PLP-5/32-2	5/32	1/8	7/16	0.77	0.92	0.125
W172PLP-4-2	1/4	1/8	7/16	0.85	0.92	0.188
W172PLP-4-4	1/4	1/4	9/16	0.85	1.10	0.188
W172PLP-4-6	1/4	3/8	11/16	0.85	1.10	0.188
W172PLP-5-2	5/16	1/8	9/16	0.97	1.02	0.250
W172PLP-5-4	5/16	1/4	9/16	0.97	1.24	0.250
W172PLP-6-4	3/8	1/4	9/16	1.01	1.24	0.250
W172PLP-6-6	3/8	3/8	11/16	1.01	1.24	0.250
W172PLP-8-4	1/2	1/4	9/16	1.15	1.30	0.375
W172PLP-8-6	1/2	3/8	11/16	1.15	1.31	0.375
W172PLP-8-8	1/2	1/2	7/8	1.15	1.52	0.375

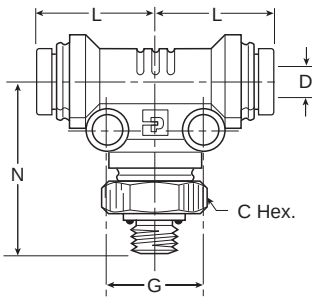
W372PL Male Branch Tee Swivel (Composite Body)



Part No.	Tube Size	Pipe Thread (NPTF)	C Hex.	Mounting Hole Dia.	L	N	G	Flow Dia. D
W372PL-2-1	1/8	1/16	3/8	0.13	0.71	1.08	0.52	0.078
W372PL-2-2	1/8	1/8	7/16	0.13	0.71	1.14	0.52	0.078
W372PL-2-4	1/8	1/4	9/16	0.13	0.71	1.32	0.52	0.078
372PL-2-10X32	1/8	10-32	3/8	0.13	0.71	.94	0.52	0.078
W372PL-3-2	3/16	1/8	7/16	0.17	0.76	1.20	0.64	0.147
W372PL-3-4	3/16	1/4	9/16	0.17	0.76	1.40	0.64	0.147
W372PL-5/32-2	5/32	1/8	7/16	0.13	0.71	1.14	0.52	0.094
W372PL-5/32-4	5/32	1/4	9/16	0.13	0.68	1.32	0.52	0.094
372PL5/32-10x32	5/32	10-32	3/8	0.13	0.70	.94	0.52	0.094
W372PL-4-1	1/4	1/16	7/16	0.17	0.76	1.20	0.64	0.094
W372PL-4-2	1/4	1/8	7/16	0.17	0.76	1.20	0.64	0.172
W372PL-4-4	1/4	1/4	9/16	0.17	0.76	1.38	0.64	0.172
372PL-4-10x32	1/4	10-32	7/16	0.17	0.76	1.05	0.64	0.094
W372PL-4-6	1/4	3/8	11/16	0.17	0.76	1.42	0.64	0.172
W372PL-5-2	5/16	1/8	9/16	0.17	0.84	1.23	0.71	0.234
W372PL-5-4	5/16	1/4	9/16	0.17	0.84	1.23	0.71	0.234
W372PL-6-2	3/8	1/8	9/16	0.17	1.04	1.48	0.83	0.234
W372PL-6-4	3/8	1/4	5/8	0.17	1.04	1.66	0.83	0.297
W372PL-6-6	3/8	3/8	11/16	0.17	1.04	1.66	0.83	0.297
W372PL-6-8	3/8	1/2	7/8	0.17	1.04	1.85	0.83	0.297
W372PL-8-4	1/2	1/4	3/4	0.17	1.30	2.07	0.99	0.314
W372PL-8-6	1/2	3/8	3/4	0.17	1.30	2.07	0.99	0.344
W372PL-8-8	1/2	1/2	7/8	0.17	1.30	2.26	0.99	0.344

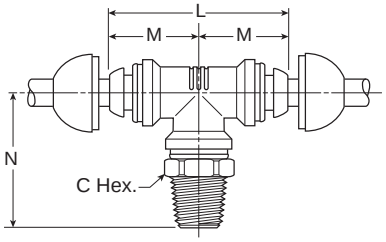
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PLS2BF4-K Male Branch Tee Swivel BSPP
(Composite Body)



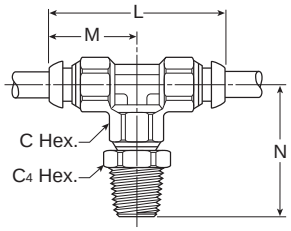
Part No.	Tube Size	Thread (BSPP)	C Hex.	Mounting Hole Dia.	L	N	G	Flow Dia. D
3-1/8PLS2BF4-K	3/16	1/8-28	11/16	0.17	0.76	1.05	0.64	0.147
3-1/4PLS2BF4-K	3/16	1/4-19	3/4	0.17	0.76	1.31	0.64	0.147
4-1/8PLS2BF4-K	1/4	1/8-28	11/16	0.17	0.76	1.06	0.64	0.177
4-1/4PLS2BF4-K	1/4	1/4-19	3/4	0.17	0.76	1.31	0.64	0.172
6-1/4PLS2BF4-K	3/8	1/4-19	3/4	0.17	1.04	1.56	0.83	0.296
6-3/8PLS2BF4-K	3/8	3/8-19	7/8	0.17	1.04	1.68	0.83	0.296
6-1/2PLS2BF4-K	3/8	1/2-14	1-1/16	0.17	1.04	1.83	0.83	0.297
8-3/8PLS2BF4-K	1/2	3/8-19	7/8	0.17	1.30	1.90	0.99	0.344

S63PK Adjustable Male Branch Tee BSPT



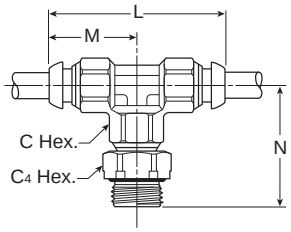
Part No.	Tube Size (mm)	Thread BSPT	C Hex. (mm)	M (mm)	N (mm)
S63PK4-1/8	4	1/8	10	18.0	25.5
S63PK4-1/4	4	1/4	14	18.0	29.0
S63PK6-1/8	6	1/8	11	18.0	29.0
S63PK6-1/4	6	1/4	14	20.5	30.5
S63PK8-1/8	8	1/8	14	22.5	29.5
S63PK8-1/4	8	1/4	14	22.5	32.5
S63PK8-3/8	8	3/8	17	22.5	34.0
S63PK10-1/4	10	1/4	17	28.5	40.0
S63PK10-3/8	10	3/8	17	28.5	39.0
S63PK12-1/4	12	1/4	19	30.0	41.5
S63PK12-3/8	12	3/8	19	30.0	41.0
S63PK12-1/2	12	1/2	22	30.0	44.5
S63PK14-3/8	14	3/8	22	33.5	45.5
S63PK14-1/2	14	1/2	22	33.5	48.0

S63PB Swivel Male Branch Tee BSPT



Part No.	Tube Size (mm)	Thread BSPT	C Hex. (mm)	C4 Hex. (mm)	L (mm)	M (mm)	N (mm)
S63PB4-1/8	4	1/8	10	10	36	18	26.5
S63PB4-1/4	4	1/4	10	14	36	18	30.0
S63PB6-1/8	6	1/8	12	11	40	20	28.0
S63PB6-1/4	6	1/4	12	14	40	20	31.0
S63PB8-1/8	8	1/8	14	14	44	22	30.0
S63PB8-1/4	8	1/4	14	14	44	22	33.0
S63PB8-3/8	8	3/8	14	17	44	22	34.5
S63PB10-1/4	10	1/4	17	17	56	28	40.0
S63PB10-3/8	10	3/8	17	17	56	28	39.0
S63PB12-1/4	12	1/4	22	19	60	30	42.0
S63PB12-3/8	12	3/8	22	19	60	30	41.0
S63PB12-1/2	12	1/2	22	22	60	30	44.5
S63PB14-3/8	14	3/8	25	22	68	34	46.0
S63PB14-1/2	14	1/2	25	22	68	34	48.5

S64PB Swivel Male Branch Tee BSPT

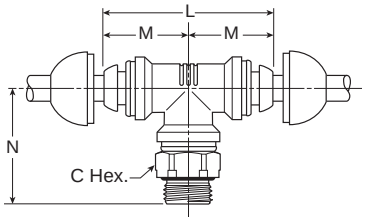


Part No.	Tube Size (mm)	Thread BSPT	C Hex. (mm)	C4 Hex. (mm)	L (mm)	M (mm)	N (mm)
S64PB4-1/8	4	1/8	10	14	36	18	26.5
S64PB4-1/4	4	1/4	10	19	36	18	31.5
S64PB6-1/8	6	1/8	12	14	40	20	30.0
S64PB6-1/4	6	1/4	12	19	40	20	33.0
S64PB8-1/8	8	1/8	14	14	44	22	30.0
S64PB8-1/4	8	1/4	14	19	44	22	35.0
S64PB8-3/8	8	3/8	14	22	44	22	36.0
S64PB10-1/4	10	1/4	17	19	56	28	39.0
S64PB10-3/8	10	3/8	17	22	56	28	40.0
S64PB12-1/4	12	1/4	22	19	60	30	41.0
S64PB12-3/8	12	3/8	22	22	60	30	42.0
S64PB14-3/8	14	3/8	25	22	68	34	46.0
S64PB14-1/2	14	1/2	25	27	68	34	50.5

N

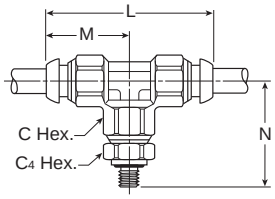
Parker Hannifin Corporation
Pneumatic Division
Richland, Michigan
www.parker.com/pneumatics

S64PK Adjustable Male Branch Tee BSPP



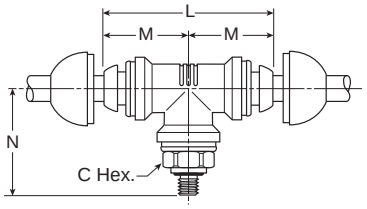
Part No.	Tube Size (mm)	Thread BSPT	C Hex. (mm)	M (mm)	N (mm)
S64PK4-1/8	4	1/8	14	18.0	25.5
S64PK4-1/4	4	1/4	19	18.0	30.5
S64PK6-1/8	6	1/8	14	20.5	27.0
S64PK6-1/4	6	1/4	19	20.5	32.0
S64PK8-1/8	8	1/8	14	22.5	29.0
S64PK8-1/4	8	1/4	19	22.5	34.0
S64PK8-3/8	8	3/8	22	22.5	35.0
S64PK10-1/4	10	1/4	19	28.5	39.0
S64PK10-3/8	10	3/8	22	28.5	40.0
S64PK12-1/4	12	1/4	19	30.0	40.5
S64PK12-3/8	12	3/8	22	30.0	41.5
S64PK14-3/8	14	3/8	22	33.5	45.0
S64PK14-1/2	14	1/2	27	33.5	49.5

S68PB Adjustable Male Branch Tee Metric Straight Thread



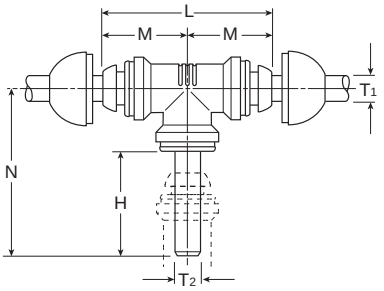
Part No.	Tube Size (mm)	Thread BSPT	C Hex. (mm)	C_4 Hex. (mm)	L (mm)	M (mm)	N (mm)
S68PB4M3	4	M3x0.5	10	10	36	18	23.0
S68PB4M5	4	M5x0.8	10	10	36	18	24.5
S68PB6M5	6	M5x0.8	12	11	40	20	25.5

S68PK Adjustable Male Branch Tee Metric Straight Thread



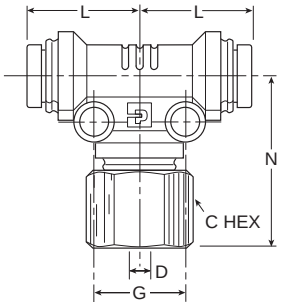
Part No.	Tube Size (mm)	Thread BSPT	C Hex. (mm)	M (mm)	N (mm)
S68PK4M3	4	M3x0.5	10	18.0	22.0
S68PK4M5	4	M5x0.8	10	18.0	23.5
S68PK6M5	6	M5x0.8	11	20.5	25.0
S68PK8M12	8	M12x1.5	17	22.5	35.0
S68PK8M16	8	M16x1.5	22	22.5	35.0
S68PK8M22	8	M22x1.5	27	22.5	39.0

T2JPK Plug-In Branch Tee



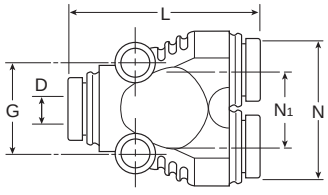
Part No.	Tube 1 Size (mm)	Tube 2 Size (mm)	Mounting Hole Dia. (mm)	H (mm)	M (mm)	N (mm)
T2JPK4	4	4	3.2	19.5	18.0	33.5
T2JPK6	6	6	4.2	21.0	20.5	36.5
T2JPK8	8	8	4.2	22.0	22.5	39.5

377PL Female Branch Tee Swivel (Composite Body)



Part No.	Tube Size	Pipe Thread (NPTF)	C Hex.	Mounting Hole Dia.	L	N	G	Flow Dia. D
377PL-2-2	1/8	1/8	9/16	0.17	0.71	1.01	0.52	0.078
377PL-5/32-2	5/32	1/8	9/16	0.13	0.71	1.01	0.52	0.094
377PL-5/32-4	5/32	1/4	3/4	0.13	0.71	1.23	0.52	0.094
377PL-4-2	1/4	1/8	9/16	0.17	0.76	1.07	0.64	0.176
377PL-4-4	1/4	1/4	3/4	0.17	0.76	1.29	0.64	0.176
377PL-5-4	5/16	1/4	3/4	0.17	0.84	1.37	0.71	0.234
377PL-6-4	3/8	1/4	3/4	0.17	1.04	1.57	0.83	0.298
377PL-8-6	1/2	3/8	7/8	0.17	1.30	1.84	0.99	0.344

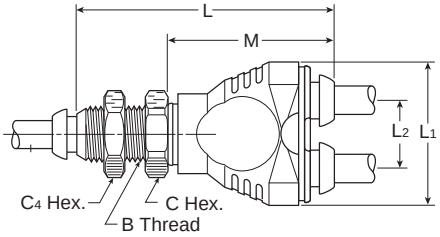
362PL Union Y Connector (Composite Body)



Part No.	Tube Size	Mounting Hole Dia.	L	N	N_1	G	Flow Dia. D
362PL-2	1/8	0.13	1.37	0.92	0.41	0.57	0.130
362PL-5/32	5/32	0.13	1.36	0.92	0.41	0.57	0.160
362PL-3	3/16	0.17	1.49	1.13	0.53	0.67	0.200
362PL-4	1/4	0.17	1.49	1.13	0.53	0.67	0.260
362PL-5	5/16	0.17	1.46	1.21	0.54	0.72	0.320
362PL-6	3/8	0.17	1.88	1.53	0.71	0.76	0.380

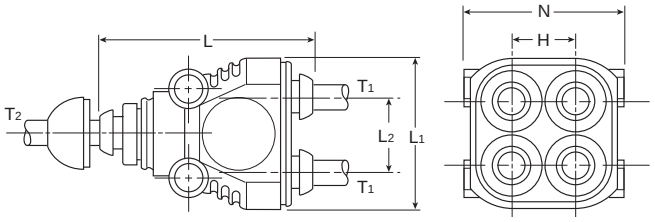
Parker Hannifin Corporation
Pneumatic Division
Richland, Michigan
www.parker.com/pneumatics

WYJ6PK Adjustable Male Bulkhead Y Connector



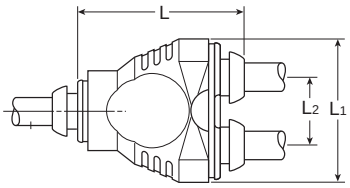
Part No.	Tube Size (mm)	Thread BSPT	C Hex. (mm)	C4 Hex. (mm)	L (mm)	L1 (mm)	L2 (mm)	M (mm)
WYJ6PK4	4	M11x0.75	14	16	46	22	11.0	27
WYJ6PK6	6	M13x1	17	17	54	30	13.5	35
WYJ6PK8	8	M15x1.25	19	19	64	30	13.5	35

YJ5PK Union Double Y Connector



Part No.	Tube 1 Size (mm)	Tube 2 Size (mm)	Mounting Hole Dia. (mm)	H (mm)	L (mm)	N (mm)
YJ5PK6-4	6	4	4.2	22.5	38	9.5
YJ5PK4	4	4	3.2	22.5	35	9.5

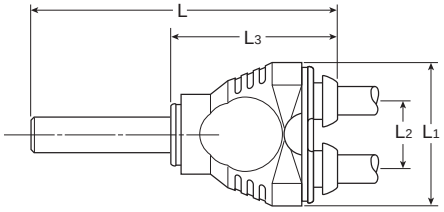
YJPK Union Y Connector



Part No.	Tube Size (mm)	L (mm)	L1 (mm)	L2 (mm)
YJPK4*	4	31	22	11.0
YJPK6*	6	40	30	13.5
YJPK8*	8	40	30	13.5

* Fittings not suitable for use with protective cap.

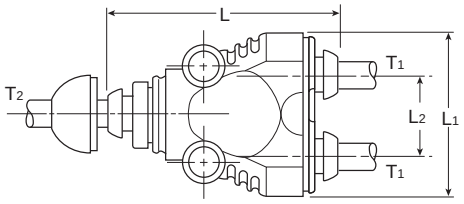
YJ2PK Plug-In Y Connector



Part No.	Tube Size (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)
YJ2PK4*	4	46.5	22	11.0	11.0
YJ2PK6*	6	56.0	30	13.5	13.5
YJ2PK8*	8	57.0	30	13.5	13.5

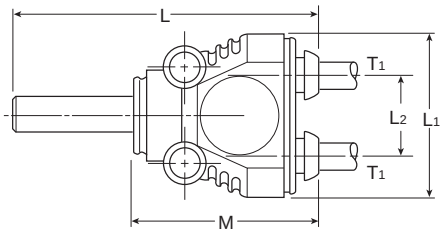
* Fittings not suitable for use with protective cap.

YJPK Unequal Union Y Connector



Part No.	Tube 1 Size (mm)	Tube 2 Size (mm)	Mounting Hole Dia. (mm)	L (mm)	L1 (mm)	L2 (mm)
YJPK4-4-6	4	6	4.2	40	30	13.5
YJPK6-6-8	6	8	4.2	40	30	13.5
YJPK8-8-10	8	10	4.2	40	31	13.6

YJ52PK Union Double Y Connector

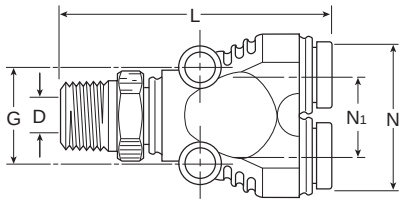


Part No.	Tube 1 Size (mm)	Tube 2 Size (mm)	Mounting Hole Dia. (mm)	L (mm)	L1 (mm)	L2 (mm)	m (mm)
YJ52PK6-4	6	4	3.2	52	22.5	9.5	31

N

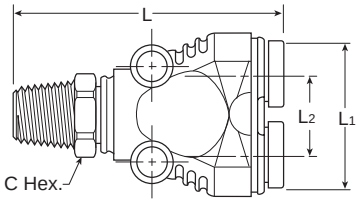
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W368PL Union Y Male Connector



Part No.	Tube Size	Pipe Size	Mounting Hole Dia. (mm)	G	L	N	N1	Flow Dia. D
W368PL-2-2	1/8	1/8	0.13	0.57	1.81	0.92	0.41	0.080
W368PL-2-4	1/8	1/4	0.13	0.57	1.98	0.92	0.41	0.080
368PL5/32-10x32	5/32	10-32	0.13	0.57	1.60	0.92	0.41	0.090
W368PL-5/32-2	5/32	1/8	0.13	0.57	1.80	0.92	0.41	0.090
W368PL-5/32-4	5/32	1/4	0.13	0.57	1.98	0.92	0.41	0.090
368PL-3-10x32	3/16	10-32	0.17	0.67	1.77	1.13	0.53	0.094
W368PL-3-2	3/16	1/8	0.17	0.67	1.92	1.13	0.53	0.150
W368PL-3-4	3/16	1/4	0.17	0.67	2.16	1.13	0.53	0.150
W368PL-3-6	3/16	3/8	0.17	0.67	2.16	1.13	0.53	0.147
368PL-4-10x32	1/4	10-32	0.17	0.67	1.78	1.13	0.53	0.090
W368PL-4-2	1/4	1/8	0.17	0.67	1.93	1.13	0.53	0.172
W368PL-4-4	1/4	1/4	0.17	0.67	2.11	1.13	0.53	0.170
W368PL-4-6	1/4	3/8	0.17	0.67	2.15	1.13	0.53	0.170
W368PL-5-2	5/16	1/8	0.17	0.72	1.87	1.20	0.54	0.230
W368PL-5-4	5/16	1/4	0.17	0.72	2.10	1.20	0.54	0.230
W368PL-5-6	5/16	3/8	0.17	0.72	2.10	1.20	0.54	0.234
W368PL-6-4	3/8	1/4	0.17	0.76	2.50	1.53	0.71	0.300
W368PL-6-6	3/8	3/8	0.17	0.76	2.50	1.53	0.71	0.300

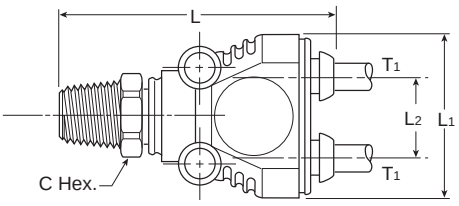
YJ63PK Adjustable Male Y Connector BSPT



Part No.	Tube Size (mm)	Thread BSPT	C Hex. (mm)	L (mm)	L1 (mm)	L2 (mm)
YJ63PK4-1/8*	4	1/8	10	38.5	22	11.0
YJ63PK4-1/4*	4	1/4	14	42.0	22	11.0
YJ63PK6-1/8*	6	1/8	11	51.5	30	13.5
YJ63PK6-1/4*	6	1/4	14	50.0	30	13.5
YJ63PK8-1/8*	8	1/8	14	47.0	30	13.5
YJ63PK8-1/4*	8	1/4	14	50.0	30	13.5

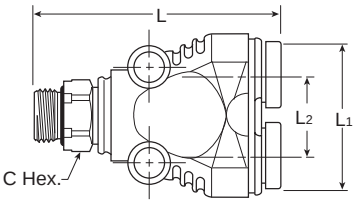
*Fittings not suitable for use with protective cap.

YJ563PK Union Double Y Connector Adjustable Male BSPT



Part No.	Tube Size (mm)	Thread BSPT	Mounting Hole Dia. (mm)	C Hex. (mm)	L (mm)	L1 (mm)	L2 (mm)
YJ563PK4-1/8	4	1/8	3.2	10	42.5	22.5	9.5
YJ563PK4-1/4	4	1/4	3.2	14	46.0	22.5	9.5

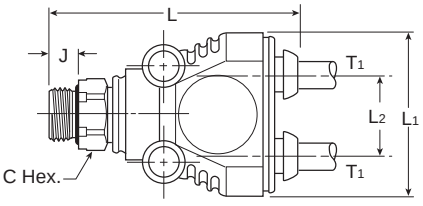
YJ64PK Adjustable Male Y Connector BSPP



Part No.	Tube Size (mm)	Thread BSPP	C Hex. (mm)	L (mm)	L1 (mm)	L2 (mm)
YJ64PK4-1/8*	4	1/8	14	38.5	22	11.0
YJ64PK4-1/4*	4	1/4	19	43.5	22	11.0
YJ64PK6-1/8*	6	1/8	14	46.5	30	13.5
YJ64PK6-1/4*	6	1/4	19	51.5	30	13.5
YJ64PK8-1/8*	8	1/8	14	46.5	30	13.5
YJ64PK8-1/4*	8	1/4	19	51.5	30	13.5

*Fittings not suitable for use with protective cap.

YJ564PK Union Double Y Connector Adjustable Male BSPP

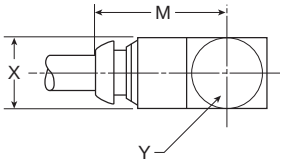


Part No.	Tube Size (mm)	Thread BSPP	Mounting Hole Dia. (mm)	C Hex. (mm)	J (mm)	L (mm)	L1 (mm)	L2 (mm)
YJ564PK4-1/8	4	1/8	3.2	14	6	42.5	22.5	9.5
YJ564PK4-1/4	4	1/4	3.2	19	9	47.5	22.5	9.5

N

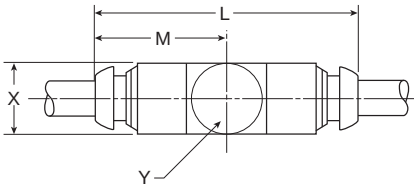
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CORPB Single Banjo, Body Only



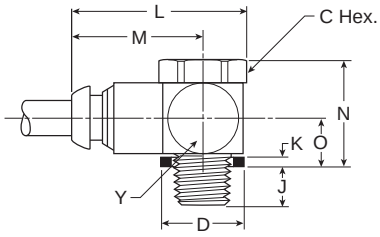
Part No.	Tube Size (mm)	Part No. Single Bolt	Part No. Stacking Bolt	M (mm)	X (mm)	Y (mm)
CORPB4-5	4	SC8UM5-4	SC8UDM5-4	19.0	10	10
CORPB4-10	4	SC4U1/8-4	SC4UD1/8-4	22.5	14	14
CORPB6-10	6	SC4U1/8-4	SC4UD1/8-4	23.0	14	14
CORPB6-13	6	SC4U1/4-6	SC4UD1/4-6	24.5	14	17
CORPB8-10	8	SC4U1/8-4	SC4UD1/8-4	24.0	14	14
CORPB8-13	8	SC4U1/4-6	SC4UD1/4-6	25.5	14	17
CORPB10-17	10	SC4U3/8-10	SC4UD3/8-10	32.0	17	22

CORPB Double Banjo, Body Only



Part No.	Tube Size (mm)	Part No. Single Bolt	Part No. Stacking Bolt	L (mm)	M (mm)	X (mm)	Y (mm)
CORPB4D5	4	SC8UM5-4	SC8UDM5-4	38	19.0	10	10
CORPB4D10	4	SC4U1/8-4	SC4UD1/8-4	45	22.5	14	14
CORPB6D10	6	SC4U1/8-4	SC4UD1/8-4	46	23.0	14	14
CORPB6D13	6	SC4U1/4-6	SC4UD1/4-6	49	24.5	14	17
CORPB8D10	8	SC4U1/8-4	SC4UD1/8-4	48	24.0	14	14

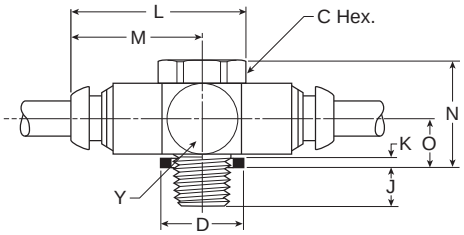
COR8PB / COR4PB Single Banjo Assembled



Part No.	Tube Size (mm)	Thread BSPP	C Hex. (mm)	D (mm)	J (mm)	K (mm)	L (mm)	M (mm)	N (mm)	O (mm)	Y (mm)
COR8PB4M5	4	M5x0.8	8	8.2	4.5	1.0	24.0	19.0	13.5	6.0	10
COR4PB4-1/8	4	1/8	14	14.4	6.0	1.5	29.5	22.5	19.5	8.5	14
COR4PB6-1/8	6	1/8	14	14.4	6.0	1.5	30.0	23.0	19.5	8.5	14
COR4PB6-1/4	6	1/4	17	18.4	9.0	2.0	33.0	24.5	21.0	9.0	17
COR4PB8-1/8	8	1/8	14	14.4	6.0	1.5	31.0	34.0	19.5	8.5	14
COR4PB8-1/4	8	1/4	17	18.4	9.0	2.0	34.0	25.5	21.0	9.0	17
COR4PB10-3/8	10	3/8	22	21.6	9.0	2.5	43.0	32.0	25.5	11.0	22

These parts are delivered complete with sealing washer.

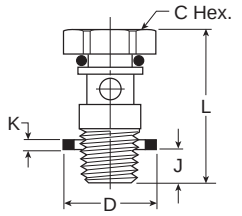
COR8PB / COR4PB Double Banjo Assembled



Part No.	Tube Size (mm)	Thread BSPP	C Hex. (mm)	D (mm)	J (mm)	K (mm)	L (mm)	M (mm)	N (mm)	O (mm)	Y (mm)
COR8PB4DM5	4	M5x0.8	8	8.2	4.5	1.0	38	19.0	13.5	6.0	10
COR4PB4D1/8	4	1/8	14	14.4	6.0	1.5	45	22.5	19.5	8.5	14
COR4PB6D1/8	6	1/8	14	14.4	6.0	1.5	46	23.0	19.5	8.5	14
COR4PB6D1/4	6	1/4	17	18.4	9.0	2.0	49	24.5	21.0	9.0	17
COR4PB8D1/8	8	1/8	14	14.4	6.0	1.5	48	24.0	19.5	8.5	14

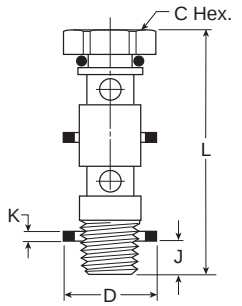
These parts are delivered complete with sealing washer.

SC8U / SC4U Single Banjo Bolt with Seals BSPP



Part No.	Thread BSPP	C Hex. (mm)	D (mm)	J (mm)	K (mm)	L (mm)
SC8UM5-4	M5x0.8	8	8.2	4.5	1.0	18.5
SC4U1/8-4	1/8	14	14.4	6.0	1.5	25.5
SC4U1/4-6	1/4	17	18.4	9.0	2.0	30.0
SC4U3/8-10	3/8	22	21.6	9.0	2.5	34.5

SC8UD / SC4UD Single Banjo Bolt with Seals BSPP

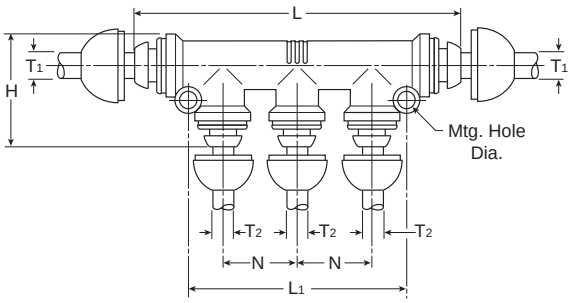


Part No.	Thread BSPP	C Hex. (mm)	D (mm)	J (mm)	K (mm)	L (mm)
SC8UDM5-4	M5x0.8	8	8.2	4.5	1.0	29.5
SC4UD1/8-4	1/8	14	14.4	6.0	1.5	41.0
SC4UD1/4-6	1/4	17	18.4	9.0	2.0	46.0

N

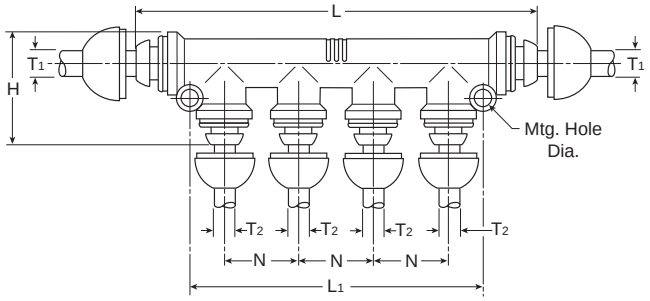
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J5PK Multiple Tee



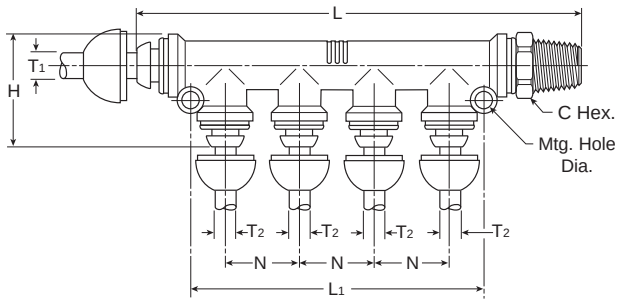
Part No.	Tube 1 Size (mm)	Tube 2 Size (mm)	Mounting Hole (mm)	H (mm)	L (mm)	L1 (mm)	N (mm)
J5PK6-4	6	4	4.2	27	78	52	18
J5PK8-4	8	4	4.2	28	80	52	18
J5PK8-6	8	6	4.2	30	80	52	18
J5PK10-6	10	6	4.2	33	90	52	18

J6PK Multiple Tee



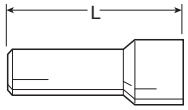
Part No.	Tube 1 Size (mm)	Tube 2 Size (mm)	Mounting Hole (mm)	H (mm)	L (mm)	L1 (mm)	N (mm)
J6PK6-4	6	4	4.4	27	96	70	18
J6PK8-4	8	4	4.4	28	98	70	18
J6PK8-6	8	6	4.4	30	98	70	18
J6PK10-6	10	6	4.4	33	108	70	18

J663PK Adjustable Male Multiple Tee BSPT



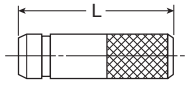
Part No.	Tube 1 Size (mm)	Tube 2 Size (mm)	Mtg. Hole (mm)	Thread BSPT	C Hex. (mm)	H (mm)	L (mm)	L1 (mm)	N (mm)
J663PK6-4-1/4	6	4	4.4	1/4	14	27	106.5	70	18

639PL Plug



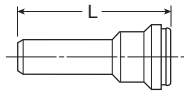
Part No.	Tube 1 Size (mm)	L (mm)
639PL-2	1/8	1.30
639PL-5/32	5/32	1.30
639PL-4	1/4	1.34
639PL-5	5/16	1.28
639PL-6	3/8	1.50
639PL-8	1/2	1.59

FNPB Plug



Part No.	Tube 1 Size (mm)	L (mm)
FNPB4	4	27
FNPB6	6	27
FNPB8	8	30
FNPB10	10	30
FNPB12	12	35
FNPB14	14	36

FNPK Plug

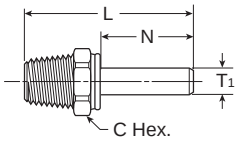


Part No.	Tube 1 Size (mm)	L (mm)
FNPK4	4	34.5
FNPK6	6	35.0
FNPK8	8	35.0
FNPK10	10	42.0
FNPK12	12	41.0
FNPK14	14	40.0

N

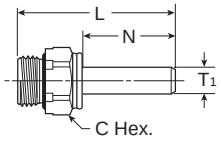
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T23FPK Tube End Male Adaptor BSPT



Part No.	Tube Size (mm)	Thread BSPT	C Hex. (mm)	L (mm)	N (mm)
T23FPK4-1/8	4	1/8	12	36	19.5
T23FPK4-1/4	4	1/4	14	40	19.5
T23FPK6-1/8	6	1/8	14	40	21.0
T23FPK6-1/4	6	1/4	14	40	21.0
T23FPK8-1/8	8	1/8	17	45	22.0
T23FPK8-1/4	8	1/4	17	46	22.0
T23FPK8-3/8	8	3/8	17	44	22.0
T23FPK10-1/4	10	1/4	19	57	27.0
T23FPK10-3/8	10	3/8	19	55	27.0
T23FPK10-1/2	10	1/2	22	52	27.0

T24FPK Tube End Male Adaptor BSPP



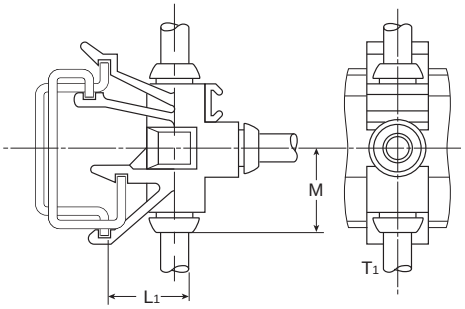
Part No.	Tube Size (mm)	Thread BSPP	C Hex. (mm)	J (mm)	L (mm)	N (mm)
T24FPK4-1/8	4	1/8	14	6	38	19.0
T24FPK4-1/4	4	1/4	16	9	38	19.5
T24FPK6-1/8	6	1/8	14	6	41	21.0
T24FPK6-1/4	6	1/4	16	9	41	20.5
T24FPK8-1/8	8	1/8	14	6	45	22.0
T24FPK8-1/4	8	1/4	16	9	45	22.0
T24FPK8-3/8	8	3/8	19	9	45	22.0
T24FPK10-1/4	10	1/4	19	9	57	27.0
T24FPK10-3/8	10	3/8	19	9	51	26.0
T24FPK10-1/2	10	1/2	27	12	50	27.0

Protective Cap



Part No.	1
C4*	4
C6*	6
C8*	8
C10*	10
C12*	12
C14*	14

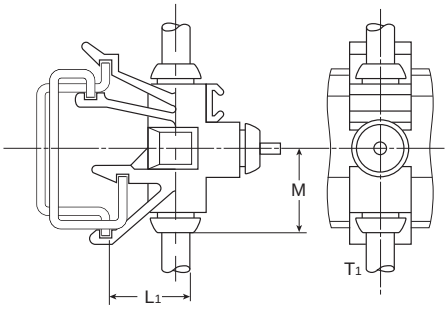
J3PK Manifold for 3 Tubes



Part No.	Tube Size (mm)	L1 (mm)	M (mm)
J3PK4	4	14	16
J3PK6	6	15	18
J3PK8	8	15	29

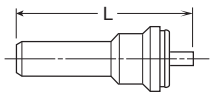
*Add the following code, corresponding to the chosen color W: white; BU: blue; G: green; R: red; Y: yellow; BL: black. Example: cap red suitable for tube 4mm: C4R. In case of no color specification, we will deliver yellow cap (standard color).

HS3PK Manifold for 2 Tubes and Pressure Indicator



Part No.	Tube Size (mm)	L1 (mm)	M (mm)
HS3PK4	4	14	16
HS3PK6	6	15	18
HS3PK8	8	15	29

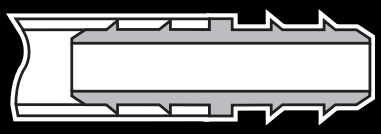
TS2PK Pressure Indicator



Part No.	Tube Size (mm)	L (mm)
TS2PK4	4	36
TS2PK6	6	37
TS2PK8	8	36

N

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Dubl-Barb® Fittings

Advantages

Compact one-piece, push-on barbed fitting for a quick, economical way to connect polyethylene tubing. In addition to the styles shown, custom Dubl-Barb® fittings to meet your exact requirements are available. Machined from CA 360 or CA 345 brass.

Applications

Because of the many available variations in qualities of polyethylene tubing, DUBL-BARB® fittings are recommended for use with Parker Parflex® polyethylene tubing (or an equal grade). Parker Parflex® tubing is highly resistant to environmental stress cracking which is necessary for long life when coupled with expansion fittings.

Working Pressure and Temperature Ranges

In tube sizes 1/4 to 3/8 working pressures up to 150 psi are practical at temperatures ranging from -65° to +90°F on tube size 1/2 working pressures up to 100 psi at temperatures ranging from -65° to +75°F.

Assembly Instructions

Simply push tube over the two barbs — be sure tubing is cut squarely.

Nomenclature

Part numbers are constructed from symbols that identify the style and size of the fitting. The first series of numbers and letters identifies the style and type fitting. The second series of numbers describes the size.

Example: **231** **-8** **-6**

- 231 — Run Tee (tube to male pipe)
- -8 — 1/2" (8/16) Tube O.D.
- -6 — 3/8" (6/16) Pipe Thread

Sizes

Tube sizes are determined by the numbers of sixteenths of an inch in the tube O.D.

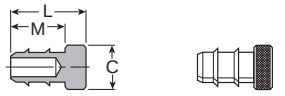
Special Fittings

Fitting configurations and/or sizes other than those shown in the catalog can be furnished. It is suggested that a print or sketch be submitted with the inquiry.

N

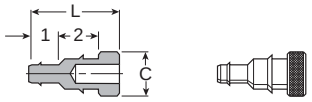
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20 Plug



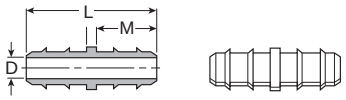
Part No.	Tube O.D.	Tube I.D.	C Dia.	L	M
20-4	1/4	0.170	0.290	0.56	0.41
20-6	3/8	0.250	0.390	0.68	0.44
20-8	1/2	0.377	0.577	0.81	0.56

20 Plug Adapter



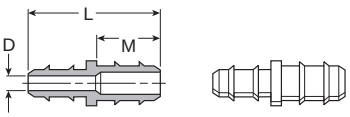
Part No.	Tube 1 O.D.	Tube 1 I.D.	Tube 2 O.D.	Tube 2 I.D.	C Dia.	L
20-4-5/32	5/32	0.096	1/4	0.170	0.290	0.65

22 Union



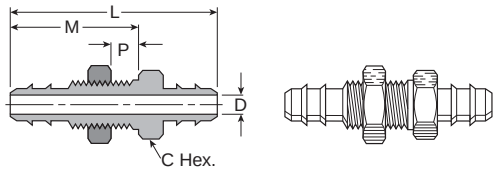
Part No.	Tube O.D.	Tube I.D.	L	M	Flow Dia. D
22-5/32	5/32x5/32	0.096x0.096	0.59	0.28	0.062
22-4	1/4x1/4	0.170x0.170	0.84	0.41	0.120
22-6	3/8x3/8	0.250x0.250	0.94	0.44	0.187
22-8	1/2x1/2	0.375x0.375	1.19	0.56	0.312

22 Union Reducer



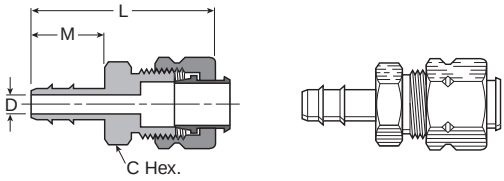
Part No.	Tube O.D.	Tube I.D.	L	M	Flow Dia. D
22-4-5/32	1/4x5/32	0.170x0.096	0.72	0.41	0.062
22-4-6	1/4x3/8	0.170x0.250	0.88	0.44	0.120
22-4-8	1/4x1/2	0.170x0.375	1.06	0.56	0.120
22-6-8	3/8x1/2	0.250x0.375	1.06	0.56	0.187

22BH Bulkhead Union



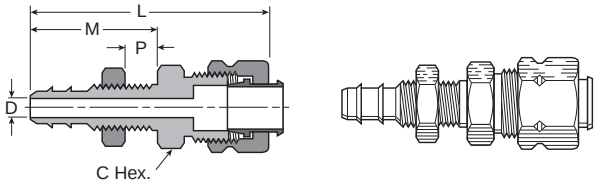
Part No.	Tube O.D.	Tube I.D.	Straight Thread	C Hex.	P Max.	L	M	Flow Dia. D	Blkd. Hole Dia.
22BH-4-4	1/4	0.170	5/16-24	7/16	0.219	1.38	0.78	0.120	5/16
22BH-6-6	3/8	0.250	3/8-24	9/16	0.375	1.63	1.00	0.187	3/8

22CA Union



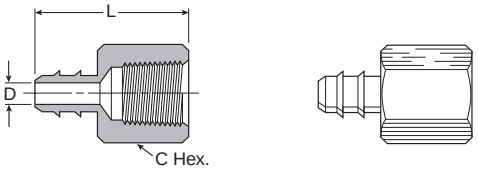
Part No.	Tube O.D.	Tube I.D.	CA Tube	C Hex.	L	M	Flow Dia. D
22CA-4-4	1/4	0.170	1/4	7/16	1.15	0.41	0.120

22CABH Union



Part No.	Tube O.D.	Tube I.D.	CA Tube	Std. Thd.	C Hex.	P Max.	L	M	Flow Dia. D	Blkd. Hole Dia.
22CABH-4-4	1/4	0.170	1/4	5/16-24	7/16	0.219	1.53	0.78	0.120	5/16
22CABH-6-6	3/8	0.250	3/8	3/8-24	9/16	0.375	1.87	1.00	0.187	3/8

26 Female Connector

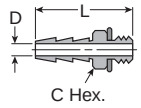


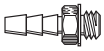
Part No.	Tube O.D.	Tube I.D.	Pipe Thread	C Hex.	L	Flow Dia. D
26-5/32-2	5/32	0.096	1/8	1/2	0.79	0.062
26-4-2	1/4	0.170	1/8	1/2	0.91	0.120
26-6-2	3/8	0.250	1/8	1/2	0.93	0.187
26-6-4	3/8	0.250	1/4	11/16	1.06	0.187

N

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27 Male Connector

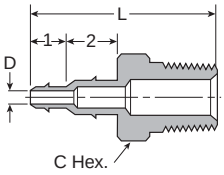


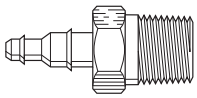


Part No.	Tube O.D.	Tube I.D.	Pipe Thread	C Hex.	L	Flow Dia. D
27-1*	1/8	0.062	10-32 UNF	1/4	0.61	0.052
27-2*	1/4	0.125	10-32 UNF	1/4	0.74	0.093

*For vinyl tubing only.

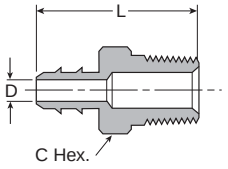
28 Barb to Pipe Adapter

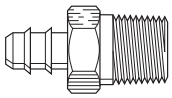




Part No.	Tube O.D. 1	Tube I.D. 1	Tube O.D. 2	Tube I.D. 2	Pipe Thread	C Hex.	F	Flow Dia. D
28-4-5/32-2	5/32	0.096	1/4	0.170	1/8	7/16	1.07	0.062

28 Male Connector

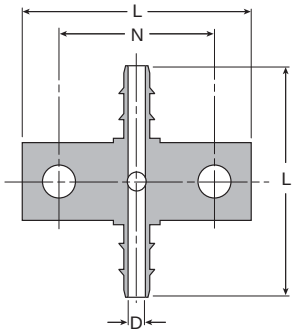


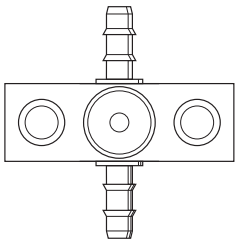


Part No.	Tube O.D.	Tube I.D.	Pipe Thread	C Hex.	L	Flow Dia. D
28-5/32-2	5/32	0.096	1/8	7/16	0.84	0.062
28-4-1	1/4	0.170	1/16	11/32	0.93	0.120
28-4-2	1/4	0.170	1/8	7/16	0.97	0.120
28-4-4	1/4	0.170	1/4	9/16	1.09	0.120
28-4-10x32*	1/4	.170	10-32	1/4	0.71	0.093
28-6-2	3/8	0.250	1/8	7/16	1.00	0.187
28-6-4	3/8	0.250	1/4	9/16	1.13	0.187
28-8-4	1/2	0.375	1/4	9/16	1.25	0.312
28-8-6	1/2	0.375	3/8	11/16	1.28	0.312
28-8-8	1/2	0.375	1/2	7/8	1.44	0.312

* Straight Thread

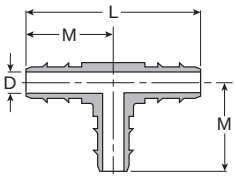
220 Adapter Tee

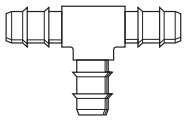




Part No.	Tube O.D.	Tube I.D.	Pipe Thread	L	M	Flow Dia. D
220-4-2	1/4	0.170	1/8	1.50	1.00	0.120

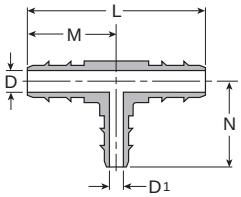
224 Union Tee

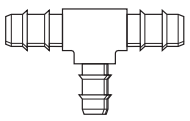




Part No.	Tube O.D.	Tube I.D.	L	M	Flow Dia. D
224-5/32	5/32	0.096	1.00	0.50	0.062
224-4	1/4	0.170	1.25	0.63	0.120
224-6	3/8	0.250	1.38	0.69	0.187
224-8	1/2	0.375	1.63	0.81	0.312

224 Union Tee (Combination Sizes)





Part No.	Tube O.D.	Tube I.D.	L	M	N	Flow Dia. D	Flow Dia. D_1
224-4-4-5/32	1/4x5/32	0.170x0.096	1.25	0.63	0.50	0.120	0.062
224-6-6-5/32	3/8x5/32	0.250x0.096	1.38	0.69	0.50	0.187	0.062
224-6-6-4	3/8x1/4	0.250x0.170	1.38	0.69	0.62	0.187	0.120
224-8-8-4	1/2x1/4	0.375x0.170	1.62	0.81	0.65	0.312	0.120
224-8-8-6	1/2x3/8	0.375x0.250	1.62	0.81	0.69	0.312	0.187

N

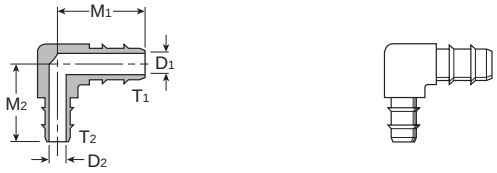
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225 Union Elbow



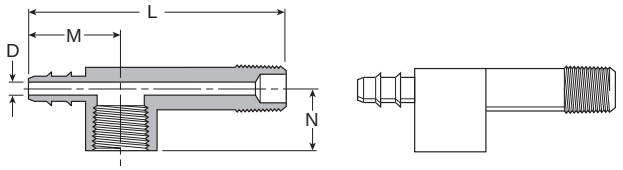
Part No.	Tube O.D.	Tube I.D.	L	M	Flow Dia. D
225-5/32	5/32	0.096	0.50	0.50	0.062
225-4-4	1/4	0.170	0.63	0.63	0.120
225-6-6	3/8	0.250	0.69	0.69	0.187
225-8-8	1/2	0.375	0.81	0.81	0.312

225 Union Elbow Combination Size



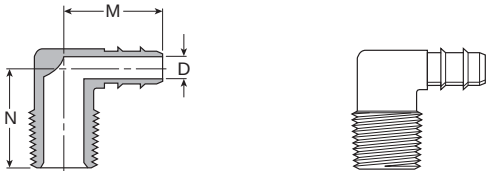
Part No.	Tube 1 O.D.	Tube 1 I.D.	Tube 2 O.D.	Tube 2 I.D.	M_1	M_2	Flow Dia. D_1	Flow Dia. D_2
225-4-5/32	1/4	0.170	5/32	0.096	0.63	0.50	0.120	0.062

228 Gauge Tee



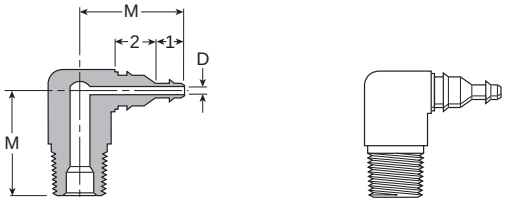
Part No.	Tube O.D.	Tube I.D.	Pipe Thread	L	M	N	Flow Dia. D
228-4-2	1/4	0.170	1/8	1.91	0.66	0.44	0.120

229 Male Elbow



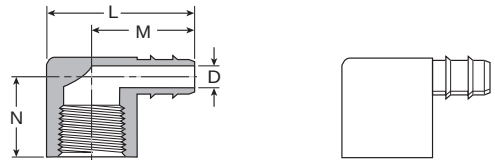
Part No.	Tube O.D.	Tube I.D.	Pipe Thread	M	N	Flow Dia. D
229-5/32-2	5/32	0.096	1/8	0.56	0.63	0.062
229-4-1	1/4	0.170	1/16	0.62	0.60	0.120
229-4-2	1/4	0.170	1/8	0.69	0.63	0.120
229-4-4	1/4	0.170	1/4	0.72	0.72	0.120
229-6-2	3/8	0.250	1/8	0.69	0.69	0.187
229-6-4	3/8	0.250	1/4	0.75	0.75	0.187
229-8-4	1/2	0.375	1/4	0.94	0.74	0.312
229-8-6	1/2	0.375	3/8	0.94	0.81	0.312

229 Barb Adapter Elbow 90°



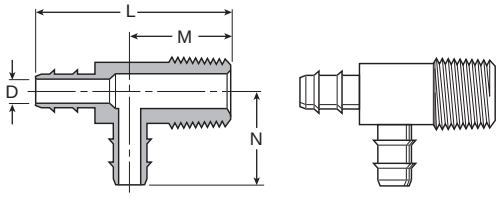
Part No.	Tube O.D. 1	Tube I.D. 1	Tube O.D. 2	Tube I.D. 2	Pipe Thread	M	Flow Dia. D
229-4-5/32-2	5/32	0.096	1/4	0.170	1/8	0.78	0.062

230 Female Elbow



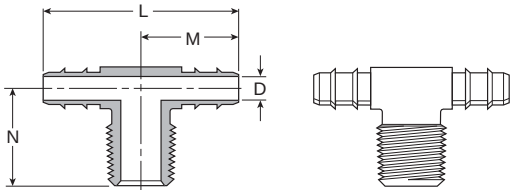
Part No.	Tube O.D.	Tube I.D.	Pipe Thread	L	M	N	Flow Dia. D
230-4-2	1/4	0.170	1/8	0.91	0.66	0.44	0.120
230-6-4	3/8	0.250	1/4	1.12	0.78	0.63	0.187

231 Male Run Tee



Part No.	Tube O.D.	Tube I.D.	Pipe Thread	L	M	N	Flow Dia. D
231-4-2	1/4	0.170	1/8	1.28	0.66	0.69	0.120
231-6-2	3/8	0.250	1/8	1.38	0.69	0.69	0.187
231-6-4	3/8	0.250	1/4	1.44	0.75	0.75	0.187

232 Male Branch Tee

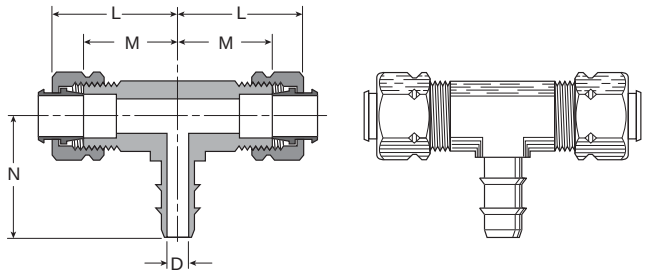


Part No.	Tube O.D.	Tube I.D.	Pipe Thread	L	M	N	Flow Dia. D
232-4-1	1/4	0.170	1/16	1.33	0.66	0.65	0.120
232-4-2	1/4	0.170	1/8	1.38	0.69	0.66	0.120
232-6-2	3/8	0.250	1/8	1.38	0.69	0.69	0.187
232-6-4	3/8	0.250	1/4	1.50	0.75	0.75	0.187

N

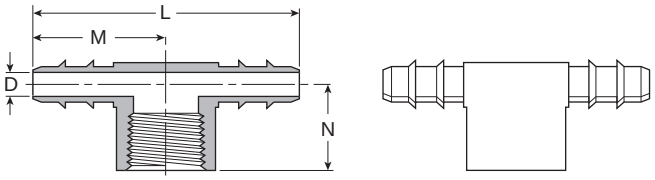
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233 Tee



Part No.	Tube O.D.	Tube I.D.	Comp. Tube	L	M	N	Flow Dia. D
233-4-4-4	1/4	0.170	1/4	0.73	0.53	0.74	0.120
233-6-6-4	1/4	0.170	3/8	0.87	0.59	0.80	0.120

237 Female Branch Tee



Part No.	Tube O.D.	Tube I.D.	Pipe Thread	L	M	N	Flow Dia. D
237-5/32-2	5-32	0.096	1/8	1.06	0.53	0.44	0.062
237-4-2	1/4	0.170	1/8	1.34	0.67	0.49	0.120

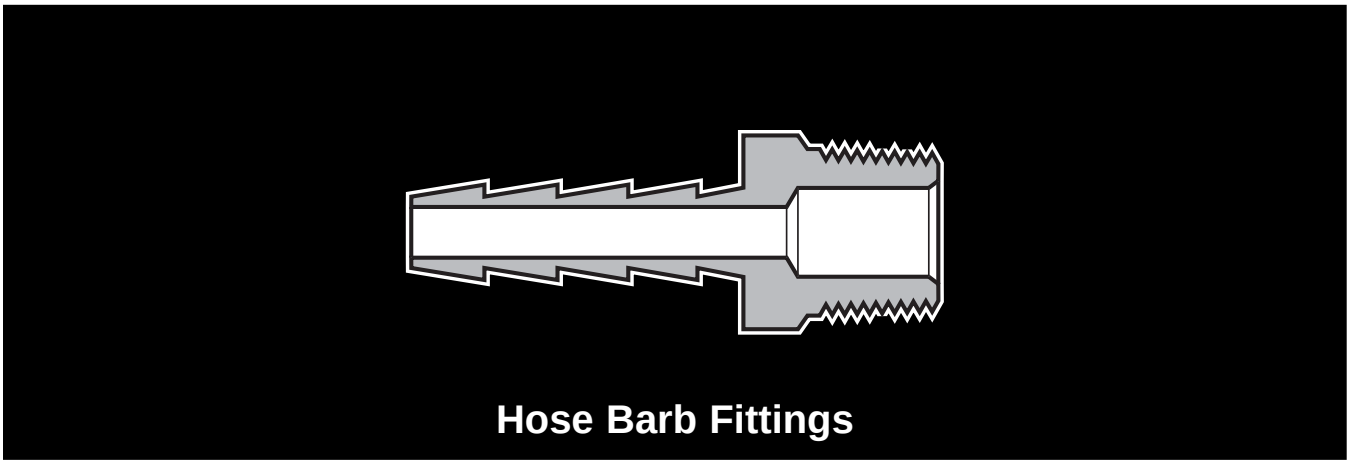
238 Solder Connector



Part No.	Tube O.D. 1	Tube I.D. 2	L	M	Flow Dia. D
238-4-4	1/4	0.170	0.91	0.254	0.120

N

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Hose Barb Fittings

Advantages

All Parker hose barb fitting pipe threads are made to Dryseal standards. Connectors, unions, nuts and extruded elbows and tees are machined from CA 360 and CA 345 brass rod.

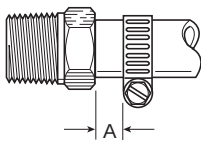
Temperature and Working Pressure Ranges

From -40°F to 160°F at 150 PSI maximum.

Note: These fittings are intended for use with 97HC hose clamp, similar type clamp or a crimped ferrule.

Assembly Instructions

1. Cut hose cleanly and squarely to length.
2. Slide clamp on hose.
3. Lubricate hose. Push hose on fitting until hose bottoms against stop ring or hex.
4. Position hose clamp as shown below and secure with a screwdriver or wrench. Maintain "A" dimension noted below for proper clamp positioning.



Hose Size	Hose Clamp	A
3/16"	97 HC-3	1/4"
1/4"	97 HC-3	1/4"
5/16"	97 HC-6	1/4"
3/8"	97 HC-6	1/8"
1/2"	97 HC-8	1/8"
5/8"	97 HC-12	1/8"
3/4"	97 HC-12	1/8"

Nomenclature

Part numbers are constructed from symbols that identify the style and size of the fitting. The first series of numbers and letters identifies the style and type fitting. The second series of numbers describes the size.

Example: 125 HBL -6 -4

- 125 — Hose Barb to Male Pipe
- HBL — Hose Barb
- -6 — 3/8" (6/16) Hose I.D.
- -4 — 1/4" (4/16) NPTF / PTF

Sizes

Pipe sizes are determined by the number of sixteenths of an inch in the pipe size.

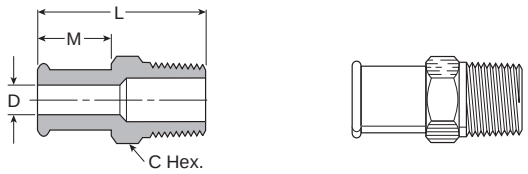
Special Fittings

Fitting configurations and/or sizes other than those shown in the catalog can be furnished. It is suggested that a print or sketch be submitted with the inquiry.

N

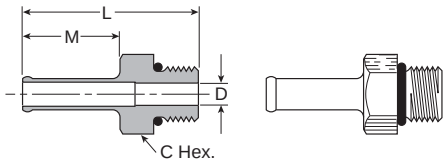
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Pneumatic Division
Richland, Michigan
www.parker.com/pneumatics

68HB Beaded Hose Barb to Male Pipe



Part No.	I.D. Hose Size	Pipe Thread	C Hex.	L	M	Flow Dia. D
68HB-6-6	3/8	3/8	11/16	1.53	0.78	0.281
68HB-8-4	1/2	1/4	5/8	1.56	0.78	0.375
68HB-8-6	1/2	3/8	11/16	1.53	0.78	0.406
68HB-8-8	1/2	1/2	7/8	1.73	0.78	0.406
68HB-10-6	5/8	3/8	3/4	1.62	0.88	0.501
68HB-10-8	5/8	1/2	7/8	1.92	0.88	0.501
68HB-12-8	3/4	1/2	7/8	1.98	0.88	0.564
68HB-12-12	3/4	3/4	1-1/16	2.04	0.97	0.625
68HB-16-12	1	3/4	1-1/8	2.12	1.00	0.750
68HB-16-16	1	1	1-3/8	2.31	1.00	0.812

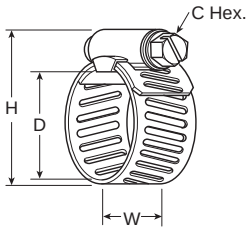
685HB Beaded Hose Barb to SAE Straight Thread



Part No.	I.D. Hose Size	Straight Thread	C Hex.	L	M	Flow Dia. D
685HB-6-6	1/4	7/16-20	9/16	1.40	0.78	0.18
685HB-6-4	3/8	7/16-20	9/16	1.39	0.78	0.18
685HB-8-8	1/2	3/4-16	7/8	1.48	0.78	0.40
685HB-10-8	5/8	3/4-16	7/8	1.56	0.78	0.40
685HB-12-8	3/4	3/4-16	7/8	1.75	0.97	0.40
685HB-12-12	3/4	1-1/16-12	1-1/4	1.82	0.97	0.62
685HB-16-8	1	3/4-16	1-1/8	1.79	0.97	0.40
685HB-16-12	1	1-1/16-12	1-1/4	1.99	0.97	0.62

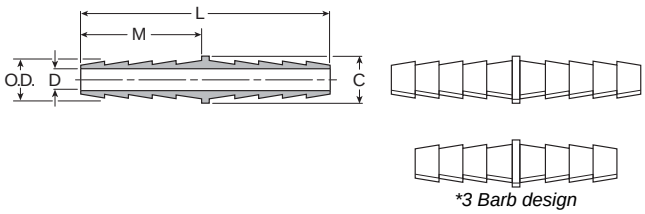
Note: Fluorocarbon O-ring is Standard.

97HC Steel Worm Drive Clamp



Part No.	D Max.	D Min.	C Hex.	H Max.	W
97HC-3	0.62	0.25	0.25	1.00	0.31
97HC-6	0.87	0.38	0.31	1.40	0.50
97HC-8	1.00	0.44	0.31	1.53	0.50
97HC-12	1.25	0.50	0.31	1.80	0.50

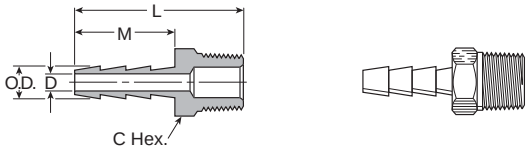
122HBL Hose Mender



Part No.	I.D. Hose Size	C Dia.	L	M	O.D.	Flow Dia. D
122HB-3*	3/16	5/16	1.44	0.69	0.227	0.125
122HBL-4	1/4	3/8	2.00	0.97	0.290	0.187
122HBL-5	5/16	7/16	2.00	0.97	0.353	0.250
122HBL-6	3/8	1/2	2.00	0.97	0.415	0.281
122HBL-8	1/2	5/8	2.00	0.97	0.530	0.375
122HBL-12	3/4	7/8	2.00	0.97	0.7.90	0.562

*3 Barb design.

125HB Hose Barb to Male Pipe

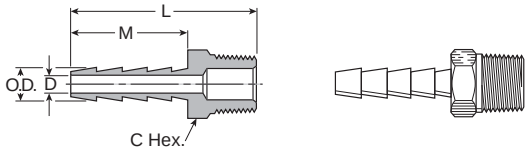


Part No.	I.D. Hose Size	Pipe Thread	C Hex.	L	M	O.D.	Flow Dia. D
125HB-2-2	1/8	1/8	7/16	1.07	.50	.185	.093
125HB-3-2	3/16	1/8	7/16	1.25	.69	.227	.125
125HB-3-4	3/16	1/4	9/16	1.44	.69	.227	.125

N

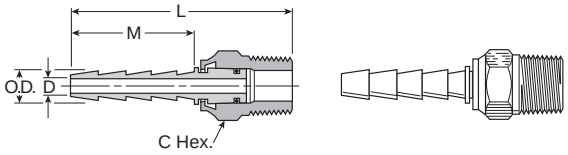
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125HBL Hose Barb to Male Pipe



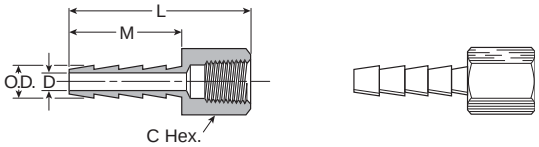
Part No.	I.D. Hose Size	Pipe Thread	C Hex.	L	M	O.D.	FLow Dia. D
125HBL-4-2	1/4	1/8	7/16	1.54	0.97	0.290	0.187
125HBL-4-4	1/4	1/4	9/16	1.72	0.97	0.290	0.187
125HBL-4-6	1/4	3/8	11/16	1.77	0.97	0.290	0.187
125HBL-5-2	5/16	1/8	7/16	1.54	0.97	0.353	0.250
125HBL-5-4	5/16	1/4	9/16	1.72	0.97	0.353	0.250
125HBL-5-6	5/16	3/8	11/16	1.77	0.97	0.353	0.250
125HBL-6-2	3/8	1/8	7/16	1.54	0.97	0.415	0.281
125HBL-6-4	3/8	1/4	9/16	1.72	0.97	0.415	0.281
125HBL-6-6	3/8	3/8	11/16	1.77	0.97	0.415	0.281
125HBL-6-8	3/8	1/2	7/8	1.97	0.97	0.415	0.281
125HBL-8-4	1/2	1/4	9/16	1.72	0.97	0.530	0.375
125HBL-8-6	1/2	3/8	11/16	1.77	0.97	0.530	0.375
125HBL-8-8	1/2	1/2	7/8	1.97	0.97	0.530	0.375
125HBL-8-12	1/2	3/4	1-1/16	1.98	0.97	0.530	0.375
125HBL-10-6	5/8	3/8	11/16	1.77	0.97	0.645	0.468
125HBL-10-8	5/8	1/2	7/8	1.97	0.97	0.645	0.468
125HBL-10-12	5/8	3/4	1-1/16	1.98	0.97	0.645	0.468
125HBL-12-8	3/4	1/2	7/8	1.97	0.97	0.790	0.562
125HBL-12-12	3/4	3/4	1-1/16	1.98	0.97	0.790	0.562
125HBL-16-12	1	3/4	1-1/16	2.18	1.17	1.020	0.750
125HBL-16-16	1	1	1-3/8	2.36	1.17	1.020	0.875

125HBLSV Male Swivel Hose Barb



Part No.	I.D. Hose Size	Pipe Thread	C Hex.	L	M	O.D.	Flow Dia. D
125HBLSV-4-4	1/4	1/4	11/16	2.14	0.97	0.290	0.187
125HBLSV-6-4	3/8	1/4	11/16	2.14	0.97	0.415	0.250
125HBLSV-6-6	3/8	3/8	11/16	2.14	0.97	0.415	0.250
125HBLSV-8-8	1/2	1/2	7/8	2.48	0.97	0.530	0.375

126HBL Hose Barb to Female Pipe



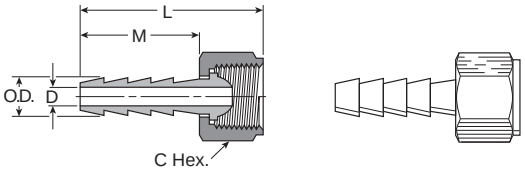
Part No.	I.D. Hose Size	Pipe Thread	C Hex.	L	M	O.D.	Flow Dia. D
126HBL-4-2	1/4	1/8	1/2	1.47	0.97	0.290	0.187
126HBL-4-4	1/4	1/4	11/16	1.58	0.97	0.290	0.187
126HBL-5-4	5/16	1/4	11/16	1.58	0.97	0.353	0.250
126HBL-6-2	3/8	1/8	1/2	1.47	0.97	0.415	0.281
126HBL-6-4	3/8	1/4	11/16	1.58	0.97	0.415	0.281
126HBL-6-6	3/8	3/8	13/16	1.63	0.97	0.415	0.281
126HBL-8-6	1/2	3/8	13/16	1.59	0.97	0.530	0.375
126HBL-8-8	1/2	1/2	1	1.73	0.97	0.530	0.375
126HBL-12-8	3/4	3/4	1-1/4	1.92	0.97	0.790	0.562

127HB Ball End Joint Adapter to Male Pipe
(For use with 128HBLSV)



Part No.	Pipe Thread (NPSM)	Pipe Thread	C Hex.	L	Flow Dia. D
127HB-4-2	1/4	1/8	9/16	0.91	0.219
127HB-4-4	1/4	1/4	9/16	1.10	0.281
127HB-6-4	3/8	1/4	11/16	1.10	0.312
127HB-6-6	3/8	3/8	11/16	1.15	0.406
127HB-8-6	1/2	3/8	7/8	1.25	0.406
127HB-8-8	1/2	1/2	7/8	1.50	0.531

128HBLSV Hose Barb to Swivel Female Ball End
(Must be used with 127HP Adapter)

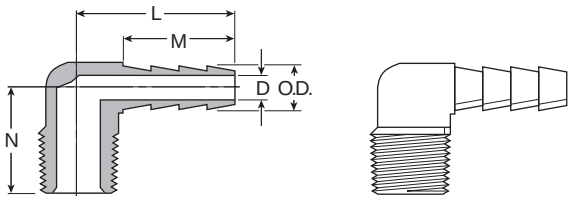


Part No.	I.D. Hose Size	Pipe Thread (NPSM)	C Hex.	L	M	O.D.	Flow Dia. D
128HBLSV-4-4	1/4	1/4	5/8	1.50	0.97	0.290	0.187
128HBLSV-5-4	5/16	1/4	5/8	1.50	0.97	0.353	0.250
128HBLSV-6-4	3/8	1/4	5/8	1.63	0.97	0.415	0.250
128HBLSV-6-6	3/8	3/8	3/4	1.50	0.97	0.415	0.281
128HBLSV-8-8	1/2	1/2	29/32	1.52	0.97	0.530	0.375

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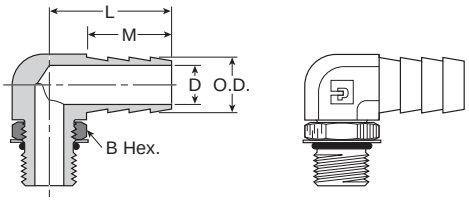
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Pneumatic Division
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129HB Hose Barb 90° Elbow to Male Pipe



Part No.	I.D. Hose Size	Pipe Thread	L	M	N	O.D.	Flow Dia. D
129HB-3-2	3/16	1/8	0.97	0.69	0.66	0.227	0.173
129HB-4-2	1/4	1/8	1.04	0.76	0.66	0.290	0.187
129HB-4-4	1/4	1/4	1.06	0.76	0.86	0.290	0.187
129HB-4-6	1/4	3/8	1.30	0.76	0.84	0.290	0.187
129HB-5-2	5/16	1/8	1.06	0.76	0.66	0.353	0.234
129HB-5-4	5/16	1/4	1.12	0.76	0.84	0.353	0.234
129HB-5-6	5/16	3/8	1.19	0.76	0.84	0.353	0.234
129HB-6-2	3/8	1/8	1.32	0.97	0.94	0.415	0.281
129HB-6-4	3/8	1/4	1.32	0.97	0.94	0.415	0.281
129HB-6-6	3/8	3/8	1.50	0.97	1.06	0.415	0.281
129HB-6-8	3/8	1/2	1.52	0.97	1.25	0.415	0.281
129HB-8-4	1/2	1/4	1.53	0.97	1.06	0.530	0.375
129HB-8-6	1/2	3/8	1.53	0.97	1.06	0.530	0.375
129HB-8-8	1/2	1/2	1.53	0.97	1.25	0.530	0.375
129HB-12-12	3/4	3/4	1.33	0.79	1.27	0.790	0.562

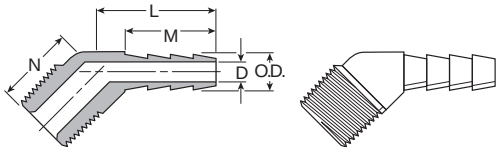
1295HB Hose Barb Elbow to SAE Straight Thread



Part No.	I.D. Hose Size	Straight Thread	B Hex.	L	M	O.D.	Flow Dia. D
1295HB-6-6	3/84	9/16-18	11-16	1.10	1.11	0.410	0.270

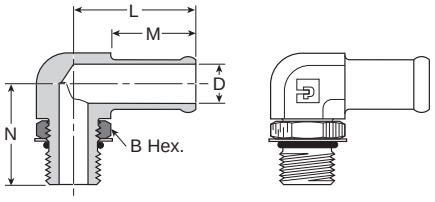
Note: Fluorocarbon o-ring is standard

139HB Hose Barb 45° Elbow to Male Pipe



Part No.	I.D. Hose Size	Pipe Thread	L	M	N	O.D.	Flow Dia. D
139HB-4-2	1/4	1/8	0.91	0.76	0.68	0.290	0.187
139HB-4-4	1/4	1/4	1.00	0.76	0.68	0.290	0.187
139HB-6-4	3/8	1/4	1.00	0.76	0.68	0.415	0.281

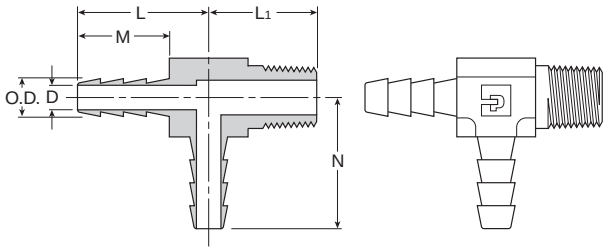
1695HB Beaded Hose Barb Elbow to SAE Straight Thread



Part Number	Hose Size	Straight Thread	B Hex.	L	M	N	Flow Dia. D
1695HB-6-4	3/8	7/16-20	9/16	1.09	0.78	1.10	0.18
1695HB-8-6	1/2	9/16-18	9/16	1.10	0.78	1.11	0.30
1695HB-8-8	1/2	3/4-16	7/8	1.28	0.78	1.47	0.40
1695HB-10-8	5/8	3/4-16	7/8	1.47	0.88	1.47	0.40
1695HB-10-10	5/8	7/8-14	1	1.41	0.88	1.60	0.50
1695HB-12-8	3/4	3/4-16	7/8	1.47	0.97	1.47	0.40
1695HB-12-10	3/4	7/8-14	1	1.60	0.97	1.62	0.50
1695HB-12-12	3/4	1 1/16-12	1	1.60	0.97	1.64	0.62
1695HB-16-12	1	1 1/16-12	1 1/4	1.60	0.97	1.75	0.60

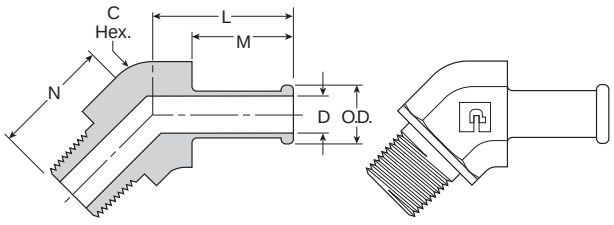
Note: Fluorocarbon o-ring is standard

171HB Hose Barb Tee to Male Pipe



Part No.	I.D. Hose Size	Pipe Thread	L	L_1	M	N	O.D.	Flow Dia. D
171HB-4-4	1/4	1/4	1.10	0.85	0.76	1.10	0.290	0.187

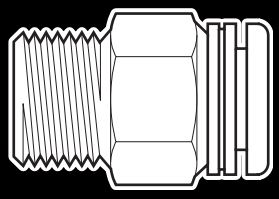
179HB Beaded Hose Barb Elbow to SAE Straight Thread 1695HB



Part No.	I.D. Hose Size	Pipe Thread NPTF	C Hex.	L	M	N	O.D.	Flow Dia. D
179HB-6-4	3/8	1/4-18	0.75	1.09	0.78	0.93	0.45	0.28
179HB-6-6	3/8	3/8-18	0.75	1.09	0.78	0.93	0.45	0.28
179HB-10-8	5/8	1/2-14	0.81	1.19	0.78	1.13	0.70	0.50
179HB-12-8	3/4	1/2-14	0.81	1.19	0.78	1.13	0.83	0.56

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Pneumatic Division
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Global Connect Fittings

Advantages

Ready-to-use compact one piece fitting for use with most thermoplastic tubing. This fitting was designed to meet the needs of the motion control industry where fast assembly, disassembly and reassembly is important. No special tools needed for tube assembly, just insert the tubing until it bottoms. Global Connect is designed to be used without a tube support to provide full flow through the tubing. The grab ring design of Global Connect grips the tubing securely to provide retention. Global Connect straight fittings have a nickel plated brass body and shaped fittings have a composite body with nickel plated brass components. Global Connect external pipe threads come with a pre-applied white PCTFE sealant. Positional external pipe threaded ends are featured on shapes for installation in compact areas and for precise positioning.

Global Connect fittings should not be used for live swivel applications.

Materials

- Global Connect Straights: Brass, Nickel Plated
- Global Connect Shape Bodies: Polyamide
- Ellipse Button: Acetal Copolymer
- Grab Ring Stainless Steel
- O-Ring: Nitrile
- Sealant: PCTFE

Applications

Use with Parker Parflex series "U" and "HU" polyurethane tubing and series "N" nylon tubing. Global Connect was designed as an economical alternative for pneumatic applications that do not require the higher pressure capacity of the Prestolok fittings.

Consult the factory with any questions regarding special product applications. All applications should be carefully tested through the range of conditions which may be encountered prior to use.

Working Pressure and Temperature Range

32° to 140°F at up to 150 PSI depending on tubing being used.

Vacuum applications are dependent upon temperature and type of tubing used.

Assembly Instructions

1. Cut thermoplastic tubing squarely, using Parker Tube Cutter PTC-001. Be certain the port or mating part is clean and free of debris.
2. Insert tubing into fitting until it bottoms. A slight twisting motion will ease the insertion. Pull on tubing to verify it is properly retained in the fitting.
3. To disassemble, simply push the elliptical button against the body and remove tubing.

Nomenclature

Part numbers are constructed from symbols that identify the style and size of the fitting. The first series of numbers and letters identify the style and type fitting. The second series of numbers describe the size.

Note: 0 indicates 10-32 UNF Thread

Example: W 369 GC -4 -2

- W — White PCTFE Thread Sealant
- 369 — Male Elbow
- GC — Global Connect
- -4 — 1/4" (4/16) Tube O.D.
- -2 — 1/8" (2/16) Pipe Thread

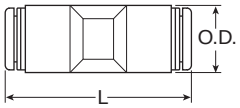
Sizes

Tube sizes are determined by the number of sixteenths of an inch in the tube O.D.

N

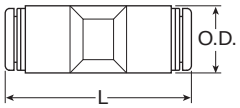
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32GC Union



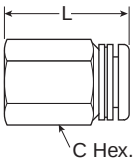
Part No.	Tube Size	O.D.	L
32GC-2	1/8	0.433	1.299
32GC-5/32	5/32	0.433	1.300
32GC-3	3/16	0.512	1.535
32GC-4	1/4	0.560	1.570
32GC-5	5/16	0.610	1.614
32GC-6	3/8	0.728	1.890
32GC-8	1/2	0.866	2.362

HGC Union (Metric)



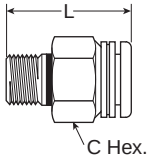
Part No.	Tube Size (mm)	O.D. (mm)	L (mm)
HGC4	4	11.00	33.00
HGC6	6	13.00	39.00
HGC8	8	15.50	41.00
HGC10	10	18.50	48.00
HGC12	12	22.00	60.00

66GC Female Connector



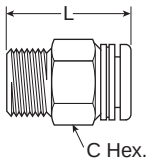
Part No.	Tube Size	Pipe Thread	C Hex.	L
66GC-3-2	3/16	1/8	1/2	1.12
66GC-4-2	1/4	1/8	1/2	1.11
66GC-4-4	1/4	1/4	5/8	1.31
66GC-5/32-2	5/32	1/8	1/2	1.07
66GC-5/32-4	5/32	1/4	5/8	1.26
66GC-5-2	5/16	1/8	9/16	1.17
66GC-5-4	5/16	1/4	5/8	1.33
66GC-6-4	3/8	1/4	13/16	1.40
66GC-6-6	3/8	3/8	13/16	1.45

68GC Male Connector



Part No.	Tube Size	Pipe Thread	C Hex.	L
68GC-2-0	1/8	10-32	1/2	0.925
68GC-5/32-0	5/32	10-32	1/2	0.913
68GC-3-0	3/16	10-32	9/16	0.898
68GC-4-0	1/4	10-32	9/16	0.898

W68GC Male Connector



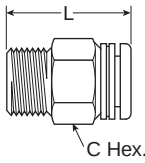
Part No.	Tube Size	Pipe Thread	C Hex.	L
W68GC-2-1	1/8	1/16	1/2	0.945
W68GC-2-2	1/8	1/8	1/2	0.945
W68GC-2-4	1/8	1/4	9/16	1.150
W68GC-5/32-1	5/32	1/16	1/2	0.937
W68GC-5/32-2	5/32	1/8	1/2	0.937
W68GC-5/32-4	5/32	1/4	9/16	1.142
W68GC-3-2	3/16	1/8	9/16	0.980
W68GC-3-4	3/16	1/4	9/16	1.181
W68GC-4-1	1/4	1/16	9/16	1.134
W68GC-4-2	1/4	1/8	9/16	0.980
W68GC-4-4	1/4	1/4	9/16	1.181
W68GC-4-6	1/4	3/8	13/16	1.185
W68GC-5-2	5/16	1/8	5/8	1.340
W68GC-5-4	5/16	1/4	5/8	1.357
W68GC-5-6	5/16	3/8	13/16	1.347
W68GC-6-2	3/8	1/8	13/16	1.319
W68GC-6-4	3/8	1/4	13/16	1.437
W68GC-6-6	3/8	3/8	13/16	1.437
W68GC-6-8	3/8	1/2	15/16	1.630
W68GC-8-4	1/2	1/4	15/16	1.555
W68GC-8-6	1/2	3/8	15/16	1.547
W68GC-8-8	1/2	1/2	15/16	1.724

All dimensions are preliminary and could change during final production.

N

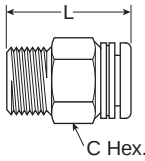
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F3GC Male Connector BSPT (Metric)



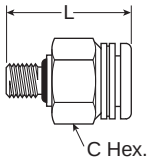
Part No.	Tube Size (mm)	BSPT Thread	C Hex. (mm)	L (mm)
F3GC4-1/8	4	1/8	12	21.0
F3GC4-1/4	4	1/4	14	18.5
F3GC6-1/8	6	1/8	14	22.0
F3GC6-1/4	6	1/4	14	22.8
F3GC8-1/8	8	1/8	17	26.0
F3GC8-1/4	8	1/4	17	23.5
F3GC8-3/8	8	3/8	17	22.6
F3GC10-1/4	10	1/4	21	31.5
F3GC10-3/8	10	3/8	21	29.0
F3GC10-1/2	10	1/2	22	28.0
F3GC12-1/4	12	1/4	22	33.8
F3GC12-3/8	12	3/8	22	31.8
F3GC12-1/2	12	1/2	22	33.8

F4GC Male Connector BSPP (Metric)



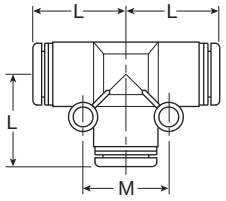
Part No.	Tube Size (mm)	BSPP Thread	C Hex. (mm)	L (mm)
F4GC4-1/8	4	1/8	12	22.0
F4GC4-1/4	4	1/4	14	20.0
F4GC6-1/8	6	1/8	14	27.5
F4GC6-1/4	6	1/4	14	27.0
F4GC8-1/8	8	1/8	17	28.8
F4GC8-1/4	8	1/4	17	28.8
F4GC8-3/8	8	3/8	21	28.8
F4GC10-1/4	10	1/4	21	37.0
F4GC10-3/8	10	3/8	21	34.0
F4GC10-1/2	10	1/2	24	36.0
F4GC12-1/4	12	1/4	22	37.7
F4GC12-3/8	12	3/8	22	33.7
F4GC12-1/2	12	1/2	24	35.7

F8GC Male Connector for Metric Thread



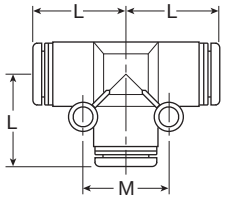
Part No.	Tube Size (mm)	Metric Thread	C Hex. (mm)	L (mm)
F8GC4M5	4	M5	12	22.0
F8GC6M5	6	M5	14	27.5
F8GC6M10	6	M10	14	25.0
F8GC6M12	6	M12	17	26.5
F8GC8M12	8	M12	17	28.3
F8GC8M16	8	M16	21	29.8

364GC Union Tee



Part No.	Tube Size	Mounting Hole Dia.	L	M
364GC-2	1/8	*	0.689	*
364GC-5/32	5/32	*	0.689	*
364GC-3	3/16	0.138	0.748	0.63
364GC-4	1/4	0.150	0.820	0.72
364GC-5	5/16	0.173	0.906	0.81
364GC-6	3/8	0.165	1.110	0.92
364GC-8	1/2	0.165	1.134	1.04

JGC Union Tee (Metric)



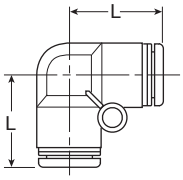
Part No.	Tube Size (mm)	Mounting Hole Dia. (mm)	L (mm)	M (mm)
JGC4	4	*	17.50	*
JGC6	6	18.80	16.00	3.50
JGC8	8	23.00	20.60	4.40
JGC10	10	28.50	23.40	4.20
JGC12	12	29.00	26.30	4.20

All dimensions are preliminary and could change during final production. *Note 1/8", 5/32" and 4mm sizes do not have mounting holes.

N

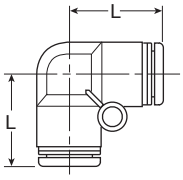
Parker Hannifin Corporation
Pneumatic Division
Richland, Michigan
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365GC Union Elbow



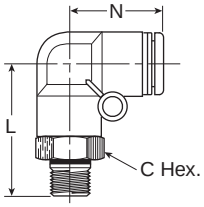
Part No.	Tube Size	Mounting Hole Dia.	L
365GC-2	1/8	*	0.65
365GC-5/32	5/32	*	0.65
365GC-3	3/16	0.130	0.76
365GC-4	1/4	0.130	0.76
365GC-5	5/16	0.170	0.87
365GC-6	3/8	0.157	1.13
365GC-8	1/2	0.170	1.24

EGC Union Elbow (Metric)



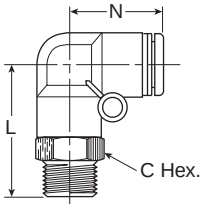
Part No.	Tube Size (mm)	Mounting Hole Dia. (mm)	L (mm)
EGC4	4	*	16.50
EGC6	6	3.50	19.30
EGC8	8	4.30	22.00
EGC10	10	4.00	28.70
EGC12	12	4.40	31.50

369GC Male Elbow



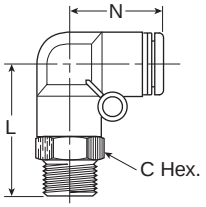
Part No.	Tube Size	Thread UNF	Mounting Hole Dia.	C Hex.	L	N
369GC-2-0	1/8	10-32	*	1/2	0.96	0.650
369GC-5/32-0	5/32	10-32	*	1/2	0.96	0.650
369GC-3-0	3/16	10-32	.138	9/16	1.09	0.760
369GC-4-0	1/4	10-32	.138	9/16	1.09	0.760

W369GC Male Elbow



Part No.	Tube Size	Pipe Thread	Mounting Hole Dia.	C Hex.	L	N
W369GC-2-1	1/8	1/16	*	1/2	1.09	0.650
W369GC-2-2	1/8	1/8	*	1/2	1.10	0.650
W369GC-2-4	1/8	1/4	*	9/16	1.30	0.650
W369GC-5/32-1	5/32	1/16	*	1/2	1.09	0.650
W369GC-5/32-2	5/32	1/8	*	1/2	1.10	0.650
W369GC-5/32-4	5/32	1/4	*	9/16	1.30	0.650
W369GC-3-2	3/16	1/8	0.138	9/16	1.47	0.760
W369GC-3-4	3/16	1/4	0.138	9/16	1.43	0.760
W369GC-4-2	1/4	1/8	0.138	9/16	1.47	0.760
W369GC-4-4	1/4	1/4	0.138	9/16	1.43	0.760
W369GC-4-6	1/4	3/8	0.138	13/16	1.44	0.760
W369GC-5-2	5/16	1/8	0.169	5/8	1.26	0.866
W369GC-5-4	5/16	1/4	0.169	5/8	1.46	0.866
W369GC-5-6	5/16	3/8	0.169	13/16	1.50	0.866
W369GC-6-2	3/8	1/8	0.158	13/16	1.52	1.130
W369GC-6-4	3/8	1/4	0.158	13/16	1.72	1.130
W369GC-6-6	3/8	3/8	0.158	13/16	1.72	1.130
W369GC-6-8	3/8	1/2	0.158	15/16	1.94	1.130
W369GC-8-4	1/2	1/4	0.173	15/16	1.88	1.240
W369GC-8-6	1/2	3/8	0.173	15/16	1.89	1.240
W369GC-8-8	1/2	1/2	0.173	15/16	2.07	1.240

C63GC Male Elbow BSPT (Metric)

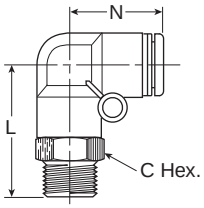


Part No.	Tube Size (mm)	BSPT Thread	Mounting Hole Dia. (mm)	C Hex. (mm)	L (mm)	N (mm)
C63GC4-1/8	4	1/8	*	12	24.9	16.5
C63GC4-1/4	4	1/4	*	14	24.9	16.5
C63GC4-3/8	4	3/8	*	17	27.9	16.5
C63GC6-1/8	6	1/8	3.5	14	27.7	13.0
C63GC6-1/4	6	1/4	3.5	14	29.7	13.0
C63GC6-3/8	6	3/8	3.5	17	31.7	13.0
C63GC8-1/8	8	1/8	4.3	17	29.0	22.0
C63GC8-1/4	8	1/4	4.3	17	31.0	22.0
C63GC8-3/8	8	3/8	4.3	17	33.0	22.0
C63GC8-1/2	8	1/2	4.3	22	35.0	22.0
C63GC10-1/4	10	1/4	4.0	21	36.5	28.7
C63GC10-3/8	10	3/8	4.0	21	37.5	28.7
C63GC10-1/2	10	1/2	4.0	22	40.5	28.7
C63GC12-1/4	12	1/4	4.4	22	40.7	31.5
C63GC12-3/8	12	3/8	4.4	22	41.7	31.5
C63GC12-1/2	12	1/2	4.4	22	43.7	31.5

All dimensions are preliminary and could change during final production. *Note 1/8", 5/32" and 4mm sizes do not have mounting holes.

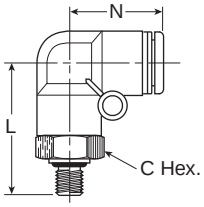
Parker Hannifin Corporation
Pneumatic Division
Richland, Michigan
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C64GC Male Elbow BSPP (Metric)



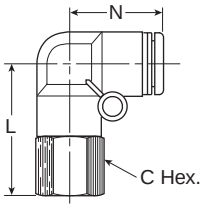
Part No.	Tube Size (mm)	BSPP Thread	Mounting Hole Dia. (mm)	C Hex. (mm)	L (mm)	N (mm)
C64GC4-1/8	4	1/8	*	12	26.9	16.5
C64GC4-1/4	4	1/4	*	17	30.9	16.5
C64GC4-3/8	4	3/8	*	21	32.9	16.5
C64GC6-1/8	6	1/8	3.5	14	29.3	13.0
C64GC6-1/4	6	1/4	3.5	17	33.3	13.0
C64GC6-3/8	6	3/8	3.5	21	33.3	13.0
C64GC8-1/8	8	1/8	4.3	17	30.0	22.0
C64GC8-1/4	8	1/4	4.3	17	34.0	22.0
C64GC8-3/8	8	3/8	4.3	21	34.0	22.0
C64GC8-1/2	8	1/2	4.3	24	36.0	22.0
C64GC10-1/4	10	1/4	4.0	21	40.5	28.7
C64GC10-3/8	10	3/8	4.0	21	40.5	28.7
C64GC10-1/2	10	1/2	4.0	24	42.5	28.7
C64GC12-1/4	12	1/4	4.4	22	41.7	31.5
C64GC12-3/8	12	3/8	4.4	22	41.7	31.5
C64GC12-1/2	12	1/2	4.4	24	45.7	31.5

C68GC Male Elbow Metric Thread



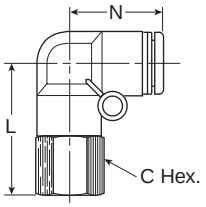
Part No.	Tube Size (mm)	Metric Thread	Mounting Hole Dia. (mm)	C Hex. (mm)	L (mm)	N (mm)
C68GC4M5	4	M5	•	12	26.9	16.5
C68GC4M6	4	M6	•	12	26.9	16.5
C68GC6M5	6	M5	3.5	14	29.3	19.3
C68GC6M6	6	M6	3.5	14	29.3	19.3

370GC Female Elbow



Part No.	Tube Size	Pipe Thread	Mounting Hole Dia.	C Hex.	L	N
370GC-2-2	1/8	1/8	*	1/2	0.98	0.650
370GC-2-4	1/8	1/4	*	5/8	1.14	0.650
370GC-5/32-2	5/32	1/8	*	1/2	0.98	0.650
370GC-5/32-4	5/32	1/4	*	5/8	1.14	0.650
370GC-3-4	3/16	1/4	0.138	9/16	1.23	0.760
370GC-4-2	1/4	1/8	0.138	9/16	1.08	0.760
370GC-4-4	1/4	1/4	0.138	5/8	1.23	0.760
370GC-4-6	1/4	3/8	0.138	13/16	1.27	0.760
370GC-5-2	5/16	1/8	0.173	5/8	1.14	0.866
370GC-5-4	5/16	1/4	0.173	5/8	1.30	0.866
370GC-6-2	3/8	1/8	0.157	13/16	1.36	1.130
370GC-6-4	3/8	1/4	0.157	13/16	1.52	1.130
370GC-6-6	3/8	3/8	0.157	13/16	1.56	1.130
370GC-6-8	3/8	1/2	0.157	15/16	1.70	1.130
370GC-8-6	1/2	3/8	0.173	15/16	1.68	1.240
370GC-8-8	1/2	1/2	1.730	15/16	2.27	1.240

CF63GC Female Elbow BSPT (Metric)



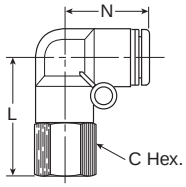
Part No.	Tube Size (mm)	BSPT Thread	Mounting Hole Dia. (mm)	C Hex. (mm)	L (mm)	N (mm)
CF63GC4-1/8	4	1/8	*	12	24.5	16.5
CF63GC4-1/4	4	1/4	*	17	25.9	16.5
CF63GC4-3/8	4	3/8	*	21	26.4	16.5
CF63GC6-1/8	6	1/8	3.5	14	28.8	19.3
CF63GC6-1/4	6	1/4	3.5	17	28.8	19.3
CF63GC6-3/8	6	3/8	3.5	21	28.8	19.3
CF63GC8-1/8	8	1/8	4.3	17	31.0	22.0
CF63GC8-1/4	8	1/4	4.3	17	31.0	22.0
CF63GC8-3/8	8	3/8	4.3	21	32.0	22.0
CF63GC8-1/2	8	1/2	4.3	22	32.0	22.0
CF63GC10-1/4	10	1/4	4.0	21	36.5	28.7
CF63GC10-3/8	10	3/8	4.0	21	37.5	28.7
CF63GC10-1/2	10	1/2	4.0	24	37.5	28.7
CF63GC12-1/4	12	1/4	4.4	22	40.7	31.5
CF63GC12-3/8	12	3/8	4.4	22	40.7	31.5
CF63GC12-1/2	12	1/2	4.4	24	51.2	31.5

All dimensions are preliminary and could change during final production. *Note 1/8", 5/32" and 4mm sizes do not have mounting holes.

N

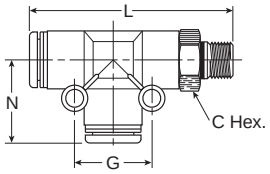
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CF68GC Female Elbow (Metric)



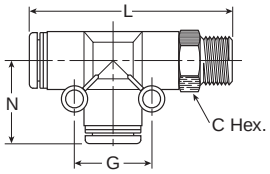
Part No.	Tube Size (mm)	Metric Thread	Mounting Hole Dia. (mm)	C Hex. (mm)	L (mm)	N (mm)
CF68GC4M5	4	M5	*	12	23.0	16.5
CF68GC4M6	4	M6	*	12	23.0	16.5
CF68GC6M5	6	M5	3.5	14	25.3	19.3
CF68GC6M6	6	M6	3.5	14	25.3	19.3

371GC Male Run Tee Swivel



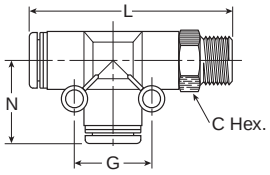
Part No.	Tube Size	Thread UNF	Mounting Hole Dia.	C Hex.	L	N	G
371GC-5/32-0	5/32	10-32	*	1/2	1.71	0.689	*
371GC-4-0	1/4	10-32	0.138	9/16	1.81	0.740	0.63

W371GC Male Run Tee Swivel



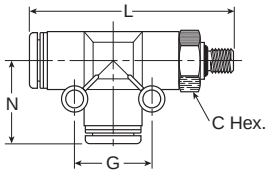
Part No.	Tube Size	Thread UNF	Mounting Hole Dia.	C Hex.	L	N	G
W371GC-2-1	1/8	1/16	*	1/2	1.86	0.689	*
W371GC-2-2	1/8	1/8	*	1/2	1.86	0.689	*
W371GC-2-4	1/8	1/4	*	9/16	2.06	0.689	*
W371GC-5/32-1	5/32	1/16	*	1/2	1.85	0.689	*
W371GC-5/32-2	5/32	1/8	*	1/2	1.85	0.689	*
W371GC-5/32-4	5/32	1/4	*	9/16	2.05	0.689	*
W371GC-3-2	3/16	1/8	0.138	9/16	1.94	0.740	0.630
W371GC-3-4	3/16	1/4	0.138	9/16	2.15	0.740	0.630
W371GC-4-2	1/4	1/8	0.138	9/16	1.94	0.740	0.630
W371GC-4-4	1/4	1/4	0.138	9/16	2.15	0.740	0.630
W371GC-4-6	1/4	3/8	0.138	13/16	2.19	0.740	0.630
W371GC-5-2	5/16	1/8	0.173	5/8	2.21	0.906	0.811
W371GC-5-4	5/16	1/4	0.173	5/8	2.41	0.906	0.811
W371GC-5-6	5/16	3/8	0.173	13/16	2.46	0.906	0.811
W371GC-6-2	3/8	1/8	0.165	13/16	2.61	1.122	0.921
W371GC-6-4	3/8	1/4	0.165	13/16	2.80	1.122	0.921
W371GC-6-6	3/8	3/8	0.165	13/16	2.81	1.122	0.921
W371GC-6-8	3/8	1/2	0.165	15/16	3.03	1.122	0.921
W371GC-8-4	1/2	1/4	0.165	15/16	2.89	1.142	1.035
W371GC-8-6	1/2	3/8	0.165	15/16	2.90	1.142	1.035
W371GC-8-8	1/2	1/2	0.165	15/16	3.12	1.142	1.035

R63GC Male Run Tee BSPT (Metric)



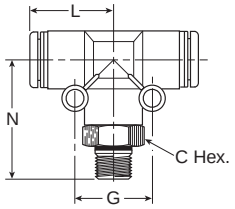
Part No.	Tube Size (mm)	BSPT Thread	Mounting Hole Dia. (mm)	C Hex. (mm)	L (mm)	N (mm)	G (mm)
R63GC4-1/8	4	1/8	*	12	43.9	17.5	*
R63GC4-1/4	4	1/4	*	14	45.9	17.5	*
R63GC4-3/8	4	3/8	*	17	47.9	17.5	*
R63GC6-1/8	6	1/8	3.5	14	46.3	18.8	16.0
R63GC6-1/4	6	1/4	3.5	14	48.3	18.8	16.0
R63GC6-3/8	6	3/8	3.5	17	50.3	18.8	16.0
R63GC8-1/8	8	1/8	4.4	17	53.2	23.0	20.6
R63GC8-1/4	8	1/4	4.4	17	55.2	23.0	20.6
R63GC8-3/8	8	3/8	4.4	17	57.2	23.0	20.6
R63GC8-1/2	8	1/2	4.4	22	59.2	23.0	20.6
R63GC10-1/4	10	1/4	4.2	21	64.2	28.5	23.4
R63GC10-3/8	10	3/8	4.2	21	65.2	28.5	23.4
R63GC10-1/2	10	1/2	4.2	22	68.2	28.5	23.4
R63GC12-1/4	12	1/4	4.2	22	67.0	29.0	26.3
R63GC12-3/8	12	3/8	4.2	22	68.0	29.0	26.3
R63GC12-1/2	12	1/2	4.2	22	70.0	29.0	26.3

R68GC Male Run Tee Metric Thread



Part No.	Tube Size (mm)	BSPT Thread	Mounting Hole Dia. (mm)	C Hex. (mm)	L (mm)	N (mm)	G (mm)
R68GC4M5	4	M5	*	12	46.0	17.5	*
R68GC4M6	4	M6	*	12	46.0	17.5	*
R68GC6M5	6	M5	3.5	14	48.3	18.8	16.0
R68GC6M6	6	M6	3.5	14	48.3	18.8	16.0

372GC Male Branch Tee Swivel



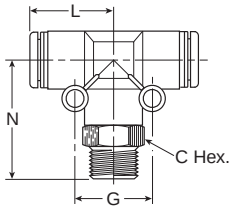
Part No.	Tube Size	Pipe Thread	Mounting Hole Dia.	C Hex.	L	N	G
372GC-2-0	1/8	10-32	*	1/2	1.32	1.00	*
372GC-5/32-0	5/32	10-32	*	1/2	1.32	1.00	*
372GC-4-0	1/4	10-32	0.138	9/16	1.38	1.04	0.63

All dimensions are preliminary and could change during final production. *Note 1/8", 5/32" and 4mm sizes do not have mounting holes.

N

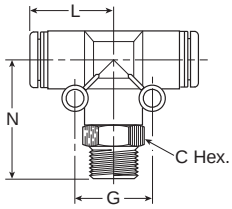
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W372GC Male Branch Tee Swivel



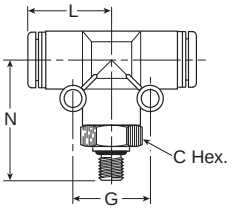
Part No.	Tube Size	Pipe Thread	Mounting Hole Dia.	C Hex.	L	N	G
W372GC-2-2	1/8	1/8	*	1/2	1.36	1.14	*
W372GC-2-4	1/8	1/4	*	9/16	1.56	1.34	*
W372GC-5/32-2	5/32	1/8	*	1/2	1.36	1.14	*
W372GC-3-2	3/16	1/8	0.138	9/16	1.44	1.17	0.630
W372GC-3-4	3/16	1/4	0.138	9/16	1.62	1.38	0.630
W372GC-4-2	1/4	1/8	0.138	9/16	1.44	1.17	0.630
W372GC-4-4	1/4	1/4	0.138	9/16	1.62	1.38	0.630
W372GC-4-6	1/4	3/8	0.138	13/16	1.64	1.42	0.630
W372GC-5-2	5/16	1/8	0.173	5/8	1.61	1.31	0.811
W372GC-5-4	5/16	1/4	0.173	5/8	1.82	1.51	0.811
W372GC-5-6	5/16	3/8	0.173	13/16	1.81	1.56	0.811
W372GC-6-2	3/8	1/8	0.165	13/16	1.88	1.50	0.921
W372GC-6-4	3/8	1/4	0.165	13/16	2.04	1.70	0.921
W372GC-6-6	3/8	3/8	0.165	13/16	2.04	1.71	0.921
W372GC-6-8	3/8	1/2	0.165	15/16	2.27	1.93	0.921
W372GC-8-4	1/2	1/4	0.165	15/16	2.15	1.74	1.035
W372GC-8-6	1/2	3/8	0.165	15/16	2.16	1.74	1.035
W372GC-8-8	1/2	1/2	0.165	15/16	2.36	1.96	1.035

S63GC Male Branch Tee BSPT (Metric)



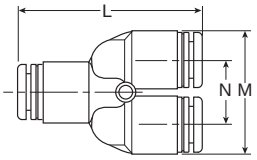
Part No.	Tube Size (mm)	BSPT Thread	Mounting Hole Dia. (mm)	C Hex. (mm)	L (mm)	N (mm)	G (mm)
S63GC4-1/8	4	1/8	*	12	35.0	26.0	*
S63GC4-1/4	4	1/4	*	14	35.0	28.0	*
S63GC4-3/8	4	3/8	*	17	35.0	30.0	*
S63GC6-1/8	6	1/8	3.5	14	37.6	26.8	16.0
S63GC6-1/4	6	1/4	3.5	14	37.6	28.8	16.0
S63GC6-3/8	6	3/8	3.5	17	37.6	30.8	16.0
S63GC8-1/8	8	1/8	4.4	17	46.0	30.2	20.6
S63GC8-1/4	8	1/4	4.4	17	46	32.2	20.6
S63GC8-3/8	8	3/8	4.4	17	46	34.2	20.6
S63GC8-1/2	8	1/2	4.4	22	46	36.2	20.6
S63GC10-1/4	10	1/4	4.2	21	57	36.2	23.4
S63GC10-3/8	10	3/8	4.2	21	57	37.2	23.4
S63GC10-1/2	10	1/2	4.2	22	57	40.2	23.4
S63GC12-1/4	12	1/4	4.2	22	58	38.0	26.3
S63GC12-3/8	12	3/8	4.2	22	58	39.0	26.3
S63GC12-1/2	12	1/2	4.2	22	58	41.0	26.3

S68GC Male Branch Tee Metric Thread



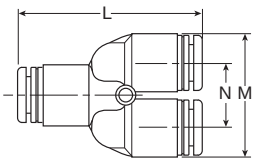
Part No.	Tube Size (mm)	BSPT Thread	Mounting Hole Dia. (mm)	C Hex. (mm)	L (mm)	N (mm)	G (mm)
S68GC4M5	4	M5	*	12	35.0	28.0	*
S68GC4M6	4	M6	*	12	35.0	28.0	*
S68GC6M5	6	M5	3.5	14	37.6	28.8	16.0
S68GC6M6	6	M6	3.5	14	37.6	28.8	16.0

362GC Union Y Connector



Part No.	Tube Size	Mounting Hole Dia.	L	M	N
362GC-2	1/8	0.118	1.358	0.421	0.846
362GC-5/32	5/32	0.118	1.358	0.421	0.846
362GC-3	3/16	0.129	1.417	0.531	1.063
362GC-4	1/4	0.150	1.450	0.561	1.100
362GC-5	5/16	0.150	1.693	0.591	1.201
362GC-6	3/8	0.165	1.969	0.728	1.457
362GC-8	1/2	0.173	2.256	0.807	1.646

YJGC Union Y Connector (Metric)

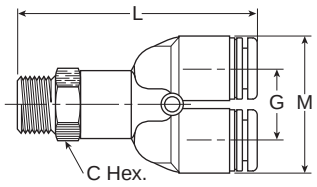


Part No.	Tube Size (mm)	Mounting Hole Dia. (mm)	L (mm)	M (mm)	N (mm)
YJGC4	4	3.0	34.5	21.5	10.7
YJGC6	6	3.4	36.0	27.0	13.5
YJGC8	8	3.8	43.0	30.5	15.0
YJGC10	10	4.2	50.8	37.0	18.5
YJGC12	12	4.4	57.8	41.5	20.5

All dimensions are preliminary and could change during final production. *Note 1/8", 5/32" and 4mm sizes do not have mounting holes.

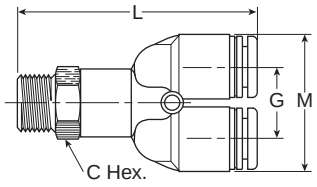
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W368GC Union Y Male Connector



Part No.	Tube Size	Pipe Thread	Mounting Hole Dia.	C Hex.	L	G	M
W368GC-2-2	1/8	1/8	0.118	1/2	1.84	0.433	0.854
W368GC-2-4	1/8	1/4	0.118	9/16	2.04	0.433	0.854
W368GC-3-2	3/16	1/8	0.134	9/16	1.89	0.531	1.063
W368GC-3-4	3/16	1/4	0.134	9/16	2.09	0.531	1.063
W368GC-5/32-2	5/32	1/8	0.118	1/2	1.83	0.433	0.854
W368GC-5/32-4	5/32	1/4	0.118	9/16	2.03	0.433	0.854
W368GC-4-2	1/4	1/8	0.134	9/16	1.89	0.531	1.063
W368GC-4-4	1/4	1/4	0.134	9/16	2.09	0.531	1.063
W368GC-4-6	1/4	3/8	0.134	13/16	2.10	0.531	1.063
W368GC-5-2	5/16	1/8	0.150	5/8	2.07	0.590	1.201
W368GC-5-4	5/16	1/4	0.150	5/8	2.28	0.590	1.201
W368GC-6-2	3/8	1/8	0.165	13/16	2.36	0.728	1.457
W368GC-6-4	3/8	1/4	0.165	13/16	2.57	0.728	1.457
W368GC-6-6	3/8	3/8	0.165	13/16	2.57	0.728	1.457
W368GC-6-8	3/8	1/2	0.173	15/16	2.79	0.728	1.457
W368GC-8-4	1/2	1/4	0.173	15/16	2.91	0.807	1.654
W368GC-8-6	1/2	3/8	0.173	15/16	2.92	0.807	1.654
W368GC-8-8	1/2	1/2	0.173	15/16	3.11	0.807	1.654

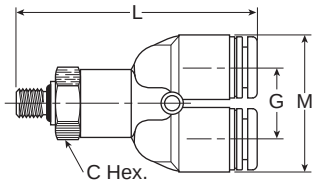
YJ63GC Union Y Male Connector BSPT (Metric)



Part No.	Tube Size (mm)	BSPT Thread	Mounting Hole Dia. (mm)	C Hex. (mm)	L (mm)	G (mm)	M (mm)
YJ63GC4-1/8	4	1/8	3.0	12	43.4	11.0	21.5
YJ63GC4-1/4	4	1/4	3.0	14	45.4	11.0	21.5
YJ63GC4-3/8	4	3/8	3.0	17	47.4	11.0	21.5
YJ63GC6-1/8	6	1/8	3.4	14	44.2	13.5	27.0
YJ63GC6-1/4	6	1/4	3.4	14	46.2	13.5	27.0
YJ63GC6-3/8	6	3/8	3.4	17	48.2	13.5	27.0
YJ63GC8-1/8	8	1/8	3.8	17	50.0	15.0	30.5
YJ63GC8-1/4	8	1/4	3.8	17	52.0	15.0	30.5
YJ63GC8-3/8	8	3/8	3.8	17	54.0	15.0	30.5
YJ63GC8-1/2	8	1/2	3.8	22	56.0	15.0	30.5
YJ63GC10-1/4	10	1/4	4.2	21	58.3	18.5	37.0
YJ63GC10-3/8	10	3/8	4.2	21	59.3	18.5	37.0
YJ63GC10-1/2	10	1/2	4.2	22	62.3	18.5	37.0
YJ63GC12-1/4	12	1/4	4.4	22	66.8	20.5	41.5
YJ63GC12-3/8	12	3/8	4.4	22	67.8	20.5	41.5
YJ63GC12-1/2	12	1/2	4.4	22	69.8	20.5	41.5

All dimensions are preliminary and could change during final production.

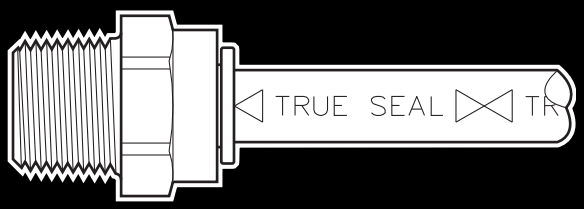
YJ68GC Union Y Male Connector Metric Thread



Part No.	Tube Size (mm)	Metric Thread	Mounting Hole Dia. (mm)	C Hex. (mm)	L (mm)	G (mm)	M (mm)
YJ68GC4M5	4	M5	3.0	12	43.4	11.0	21.5
YJ68GC4M6	4	M6	3.0	12	43.4	11.0	21.5
YJ68GC6M5	4	M5	3.4	14	44.2	13.5	27.0
YJ68GC6M6	6	M6	3.4	14	44.2	13.5	27.0

N

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Richland, Michigan
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TrueSeal™ Thermoplastic Push-In Fittings

The patented* TrueSeal™ push-to-connect thermoplastic fittings are light weight, Field Attachable, and connect to plastic tubing without the use of tools.

Features

- All components in TrueSeal™ fittings are manufactured from FDA compliant materials and are NSF-51 listed for contact with food.
- Gray acetal TrueSeal™ fittings meet NSF-61 requirements for drinking water (potable water) system components.
- All-plastic body designs offer reduced weight, eliminate rust, corrosion, and system contamination in applications where metal components cannot be tolerated.
- Collets are offered in either a patented all-plastic design for use with flexible tubing or with a metal grip edge made from 300 series stainless steel for use on all tubing including copper.
- Extra deep tube seat in fitting body provides support to reduce side-load leakage.
- Elastomer o-ring seal provides positive compression on tubing O.D. in vacuum or pressure applications.
- Removable collet design permits o-ring replacement in the field. Collets are available in colors for easy color coding of systems.
- Tube stem adapters provide a wide range of tube-to-port jump size potential and allow elbows and tees to swivel for positive tube routing alignment. Connections made with metal gripper collets, may require tube stems to be replaced upon reconnection.

Applications

TrueSeal™ fittings find wide acceptance in water conditioning, filtration, and reverse osmosis industries and on water, soft drink, beer, wine, and condiment dispensing equipment. Industrial applications range from vacuum to low-pressure hydraulic and pneumatic systems on robotics, air logic, packaging / filling equipment, and conveyors. Ink and dye transfer, lubrication and cooling lines on presses, machine tools, ion implanting devices—all rely on TrueSeal™.

Standard Materials

Materials	Fitting Color	O-ring
Acetal	Gray	EPDM
Polypropylene	White	EPDM
Kynar®	Natural	Fluorocarbon

Black nitrile o-rings and colored collets in black, white, red, blue, green, yellow and orange are also available. Consult Division.
KYNAR® is a registered trademark of Atochem North America, Inc.
*U.S. Patent 5,584,513

Note: Provide adequate fail-safe mechanisms such as leakage detection sensors, automatic shut-off controls or other industry and code appropriate fail-safe devices in the design of your water-handling appliance to protect against personal injury and property damage. Plastic fittings containing an o-ring have a finite life depending on the environment, media and severity of the application. Frequent inspections and replacement of the fitting when anomalies are found is recommended.

How to Order

A 4 MC 4 - MG - V

- V: O-Ring Materials (BLANK = Reference Standard Materials, EPDM = Ethylene Propylene, N = Nitrile, V = Fluorocarbon)
- MG: "MG" = Metal Gripper Collet
- 4: End termination size
- MC: Body Style
- 4: Tube O.D. in sixteenths of an inch
- A: Fitting body material (A = Acetal, PP = Polypropylene, F = Kynar (PVDF))

Working Pressure

TrueSeal™ fittings are rated for the pressures listed below or at 1/4 (one-fourth) of the rated burst pressure of the tubing being used (whichever is less).

Fitting Size	Acetal	Polypropylene	Kynar®
1/4"	300	150	300
5/16"	300	——	
3/8"	300	150	300
1/2"	250	150	—
Temp. Range	-20°F (-29°C) to 180°F (85°C)	-20°F (-29°C) to 225°F (110°C)	-20°F (-29°C) to 275°F (135°C)

- These pressure ratings are based on tests conducted with Series NR tubing at 73°F.
- Actual working pressures will be lower at elevated temperatures. Consult division.
- Meets pressure integrity tests of NSF-53 and NSF-58

Tubing

Parker TrueSeal™ fittings with all plastic collets can be used with the following tubing materials: polyethylene, polypropylene, nylon, vinyl, fluoropolymer, and polyurethane (3/8" and 1/2" polyurethane and all sizes of vinyl should use tube supports). TrueSeal™ fittings with metal gripper collets can be used with tubing listed above and soft copper tubing. For stainless steel or glass tubing or all other metal tubing, consult factory.

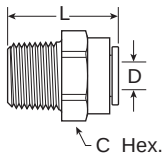
Tube Sizes	O.D. Tolerance	Insertion Depth
5/32"	±.005"	9/16"
1/4"	±.005"	11/16"
5/16"	±.005"	13/16"
3/8"	±.005"	3/4"
1/2"	±.005"	7/8"

Assembly Instructions

1. Cut tubing square and clean. (Use a Parker plastic tube cutter, Part No. PTC.)
2. Mark from end of tube the length of insertion (see table above).
3. Push tube into the fitting until it bottoms out.
4. To remove, depress collet and pull tubing out.
5. Use TrueSealant™ (Part No. PTS) on threads.

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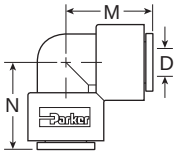
MC Male Connector Tube-to-Pipe



Gray Acetal EPDM Seal	White Polypropylene EPDM Seal	Natural Kynar Fluoro-carbon Seal	Nom. Tube O.D.	NPTF Thread Size	C Hex.	L Overall Length	D Thru Hole Min.
A4MC2-MG	PP4MC2	F4MC2	1/4	1/8	11/16	1.28	0.175
A4MC4-MG	PP4MC4	F4MC4	1/4	1/4	11/16	1.14	0.175
A4MC6-MG	PP4MC6	F4MC6	1/4	3/8	11/16	1.18	0.175
A5MC2-MG	—	—	5/16	1/8	13/16	1.46	0.175
A5MC4-MG	—	—	5/16	1/4	13/16	1.41	0.188
A5MC6-MG	—	—	5/16	3/8	13/16	1.27	0.188
A6MC2-MG	—	F6MC2	3/8	1/8	13/16	1.46	0.175
A6MC4-MG	PP6MC4	F6MC4	3/8	1/4	13/16	1.41	0.250
A6MC6-MG	PP6MC6	F6MC6	3/8	3/8	13/16	1.27	0.250
A6MC8-MG	—	F6MC8	3/8	1/2	15/16	1.45	0.250
A8MC6-MG	PP8MC6	—	1/2	3/8	15/16	1.65	0.360
A8MC8-MG	PP8MC8	—	1/2	1/2	15/16	1.46	0.375

For nonstandard plastic collet, remove -MG suffix.

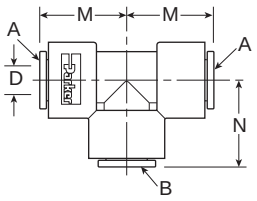
EU Union Elbow Tube-to-Tube



Gray Acetal EPDM Seal	White Polypropylene EPDM Seal	Natural Kynar Fluoro-carbon Seal	Nom. Tube O.D.	M	N	D Thru Hole Min.
A4EU4-MG	PP4EU4	F4EU4	1/4	0.87	0.87	0.175
A5EU4-MG	—	—	5/16-1/4	1.052	0.90	0.175
A5EU5-MG	—	—	5/16	1.02	1.02	0.188
A6EU4-MG	PP6EU4	F6EU4	3/8-1/4	1.02	0.90	0.212
A6EU5-MG	—	—	3/8-5/16	1.02	1.02	0.175
A6EU6-MG	PP6EU6	F6EU6	3/8	1.02	1.02	0.250
A8EU6-MG	—	—	1/2-3/8	1.20	1.20	0.250
A8EU8-MG	PP8EU8	—	1/2	1.20	1.20	0.375

For nonstandard plastic collet, remove -MG suffix.

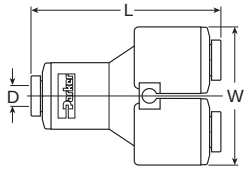
TU Union Tee Tube-to-Tube



Gray Acetal EPDM Seal	White Polypropylene EPDM Seal	Natural Kynar Fluoro-carbon Seal	Nom. Tube O.D. Tube A Run	Tube B Stem	M	N	D Thru Hole Min.
A4TU4-MG	PP4TU4	F4TU4	1/4	1/4	0.81	0.85	0.175
A5TU5-MG	—	—	5/16	5/16	1.02	1.02	0.188
A6TU4-MG	PP6TU4	F6TU4	3/8	1/4	1.02	1.03	0.175
A6TU6-MG	PP6TU6	F6TU6	3/8	3/8	1.02	1.02	0.290
A8TU8-MG	PP8TU8	—	1/2	1/2	1.20	1.20	0.375

For nonstandard plastic collet, remove -MG suffix.

WY Union Y Tube-to-Tube

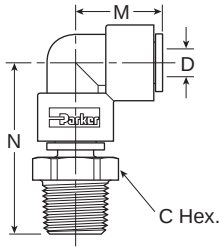


Gray Acetal EPDM Seal	White Polypropylene EPDM Seal	Natural Kynar Fluoro-carbon Seal	Nom. Tube O.D. Inlet Tube A Run	Outlet Tube B Stem	L	W	D Thru Hole Min.
A5WY5-MG	—	—	5/16	5/16	2.250	1.75	0.190
A6WY4-MG	—	—	3/8	1/4	2.100	1.43	0.190
A6WY5-MG	—	—	3/8	5/16	2.200	1.75	0.190
A6WY6-MG	—	—	3/8	3/8	2.175	1.75	0.250

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MES Male Elbow Swivel (Tube-to-Pipe)

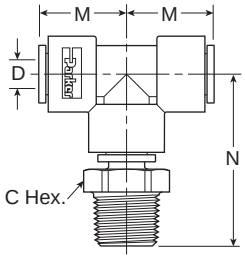


Gray Acetal EPDM Seal	White Polypropylene EPDM Seal	Natural Kynar Fluoro-carbon Seal	Nom. Tube O.D.	NPTF Thread Size	C Hex	M	N	D Thru Hole Min.
A4MES2-MG	PP4MES2	F4MES2	1/4	1/8	9/16	0.87	1.60	0.175
A4MES4-MG	PP4MES4	F4MES4	1/4	1/4	11/16	0.87	1.71	0.175
A4MES6-MG	PP4MES6	F4MES6	1/4	3/8	13/16	0.90	1.91	0.212
A5MES2-MG	—	—	5/16	1/8	9/16	1.02	1.78	0.188
A5MES4-MG	—	—	5/16	1/4	11/16	1.02	1.90	0.188
A5MES6-MG	—	—	5/16	3/8	13/16	1.02	1.90	0.188
A6MES2-MG	—	F6MES2	3/8	1/8	9/16	1.02	1.65	0.175
A6MES4-MG	PP6MES4	F6MES4	3/8	1/4	13/16	1.02	1.90	0.250
A6MES6-MG	PP6MES6	F6MES6	3/8	3/8	13/16	1.02	1.90	0.250
A8MES4-MG	—	—	1/2	1/4	13/16	1.20	2.10	0.240
A8MES6-MG	PP8MES6	—	1/2	3/8	13/16	1.20	2.10	0.375
A8MES8-MG	PP8MES8	—	1/2	1/2	1	1.20	2.32	0.375

*Part consists of elbow union and tube stem adaptor.

Note: Assemblies with metal gripper collets are permanent.
Assemblies with plastic collets can be taken apart.

MTS Male Tee Swivel (Tube-to-Pipe)

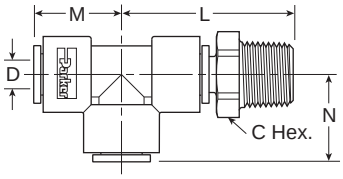


Gray Acetal EPDM Seal	White Polypropylene EPDM Seal	Natural Kynar Fluoro-carbon Seal	Nom. Tube O.D.	NPTF Thread Size	C Hex	M	N	D Thru Hole Min.
A4MTS2-MG	PP4MTS2	F4MTS2	1/4	1/8	9/16	0.81	1.60	0.175
A4MTS4-MG	PP4MTS4	F4MTS4	1/4	1/4	11/16	0.81	1.71	0.175
A5MTS2-MG	—	—	5/16	1/8	9/16	1.02	1.78	0.188
A5MTS4-MG	—	—	5/16	1/4	11/16	1.02	1.90	0.188
A5MTS6-MG	—	—	5/16	3/8	13/16	1.02	1.90	0.188
A6MTS2-MG	—	F6MTS2	3/8	1/8	9/16	1.02	1.75	0.175
A6MTS4-MG	PP6MTS4	F6MTS4	3/8	1/4	13/16	1.02	1.90	0.250
A6MTS6-MG	PP6MTS6	F6MTS6	3/8	3/8	13/16	1.02	1.90	0.250
A8MTS4-MG	—	—	1/2	1/4	13/16	1.20	2.10	0.240
A8MTS6-MG	PP8MTS6	—	1/2	3/8	13/16	1.20	2.10	0.375
A8MTS8-MG	PP8MTS8	—	1/2	1/2	1	1.20	2.32	0.375

*Part consists of tee union and tube stem adaptor.

Note: Assemblies with metal gripper collets are permanent.
Assemblies with plastic collets can be taken apart.

MRS Male Run Swivel (Tube-to-Pipe)

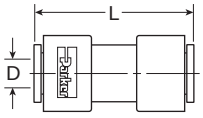


Gray Acetal EPDM Seal	White Polypropylene EPDM Seal	Natural Kynar Fluoro-carbon Seal	Nom. Tube O.D.	NPTF Thread Size	C Hex	L	M	N	D Thru Hole Min.
A4MRS2-MG	PP4MRS2	F4MRS2	1/4	1/8	9/16	1.55	0.81	0.85	0.175
A4MRS4-MG	PP4MRS4	F4MRS4	1/4	1/4	11/16	1.67	0.81	0.85	0.175
A5MRS2-MG	—	—	5/16	1/8	9/16	1.78	1.02	1.02	0.188
A5MRS4-MG	—	—	5/16	1/4	11/16	1.90	1.02	1.02	0.188
A5MRS6-MG	—	—	5/16	3/8	13/16	1.90	1.02	1.02	0.188
A6MRS4-MG	PP6MRS4	F6MRS4	3/8	1/4	13/16	1.90	1.02	1.02	0.250
A6MRS6-MG	PP6MRS6	F6MRS6	3/8	3/8	13/16	1.90	1.02	1.02	0.250
A8MRS4-MG	—	—	1/2	1/4	13/16	2.10	1.20	1.20	0.240
A8MRS6-MG	PP8MRS6	—	1/2	3/8	13/16	2.10	1.20	1.20	0.375
A8MRS8-MG	PP8MRS8	—	1/2	1/2	1	2.32	1.20	1.20	0.375

*Part consists of tee union and tube stem adaptor.

Note: Assemblies with metal gripper collets are permanent.
Assemblies with plastic collets can be taken apart.

UC Union Connector (Tube-to-Pipe)



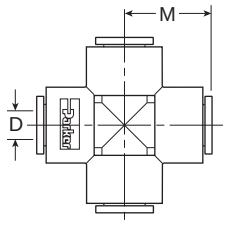
Gray Acetal EPDM Seal	White Polypropylene EPDM Seal	Natural Kynar Fluo-rocarbon Seal	Nom. Tube O.D.	L Overall Length	D Thru Hole Min.
A4UC4-MG	PP4UC4	F4UC4	1/4	1.49	0.175
A5UC4-MG	—	—	5/16-1/4	1.70	0.175
A5UC5-MG	—	—	5/16	1.70	0.188
A6UC4-MG	PP6UC4	F6UC4	3/8-1/4	1.70	0.175
A6UC5-MG	—	—	3/8-5/16	1.70	0.188
A6UC6-MG	PP6UC6	F6UC6	3/8	1.70	0.250
A8UC5-MG	—	—	1/2-5/16	1.90	0.188
A8UC6-MG	PP8UC6	—	1/2-3/8	1.90	0.250
A8UC8-MG	PP8UC8	—	1/2	1.91	0.375

For nonstandard plastic collet, remove -MG suffix.

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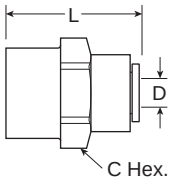
CU Cross Union (Tube-to-Pipe)



Gray Acetal EPDM Seal	White Polypropylene EPDM Seal	Natural Kynar Fluoro-carbon Seal	Nom. Tube O.D.	M	D Thru Hole Min.
A4CU4-MG	—	—	1/4	0.91	0.175
A6CU6-MG	—	—	3/8	1.08	0.250

For nonstandard plastic collet, remove -MG suffix.

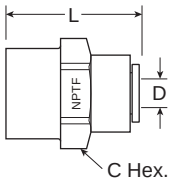
FA Faucet Adapter (Tube-to-Faucet)



Gray Acetal EPDM Seal	White Polypropylene EPDM Seal	Natural Kynar Fluoro-carbon Seal	Nom. Tube O.D.	UNS-2B Thread Size	C Hex	L Overall Length	D Thru Hole Min.
A4FA7-MG	PP4FA7	F4FA7	1/4	7/16-24	23/32	1.32	0.190
A5FA7-MG	—	—	5/16	7/16-24	13/16	1.41	0.190
A6FA7-MG	PP6FA7	F6FA7	3/8	7/16-24	13/16	1.41	0.190

For nonstandard plastic collet, remove -MG suffix.

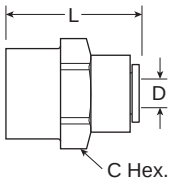
FC Female Connector (Tube-to-Pipe)



Gray Acetal EPDM Seal	White Polypropyl-ene EPDM Seal	Natural Kynar Fluoro-carbon Seal	Nom. Tube O.D.	NPTF Thread Size	C Hex	L Overall Length	D Thru Hole Min.
A4FC2-MG	PP4FC2	F4FC2	1/4	1/8	11/16	1.20	.175
A4FC4-MG	PP4FC4	F4FC4	1/4	1/4	23/32	1.32	.175
A5FC4-MG	—	—	5/16	1/4	13/16	1.41	.188
A5FC6-MG	—	—	5/16	3/8	1	1.50	.188
A6FC4-MG	PP6FC4	F6FC4	3/8	1/4	13/16	1.41	.250
A6FC6-MG	PP6FC6	F6FC6	3/8	3/8	1	1.50	.250
A6FC8-MG	—	—	3/8	1/2	1-1/8	1.52	.250
A8FC6-MG	PP8FC6	—	1/2	3/8	1-1/8	1.60	.375
A8FC8-MG	PP8FC8	—	1/2	1/2	1-1/8	1.75	.375

For nonstandard plastic collet, remove -MG suffix.

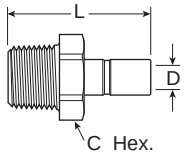
FF 45° Female Flare (Tube-to-Pipe)



Gray Acetal EPDM Seal	White Polypropylene EPDM Seal	Natural Kynar Fluoro-carbon Seal	Nom. Tube O.D.	UNF-2B Thread Size	C Hex	L Overall Length	D Thru Hole Min.
A4FF4-MG	PP4FF4	F4FF4	1/4	7/16-20	23/32	1.32	0.190
A6FF4-MG	—	F6FF4	3/8	7/16-20	13/16	1.41	0.190
A6FF6-MG	PP6FF6	F6FF6	3/8	5/8-18	1	1.50	0.250

For nonstandard plastic collet, remove -MG suffix.

TMC Tube Stem Adapter (Tube Stem-to-Pipe)

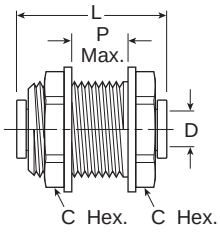


Gray Acetal EPDM Seal	White Polypropylene EPDM Seal	Natural Kynar Fluoro-carbon Seal	Nom. Tube O.D.	NPTF Thread Size	C Hex	L Overall Length	D Thru Hole Min.
A4TMC2	PP4TMC2	F4TMC2	1/4	1/8	9/16	1.44	0.175
A4TMC4	PP4TMC4	F4TMC4	1/4	1/4	11/16	1.56	0.175
A5TMC2	—	—	5/16	1/8	9/16	1.5	0.188
A5TMC4	—	—	5/16	1/4	11/16	1.67	0.188
A5TMC6	—	—	5/16	3/8	13/16	1.67	0.188
A6TMC4	PP6TMC4	F6TMC4	3/8	1/4	13/16	1.70	0.250
A6TMC6	PP6TMC6	F6TMC6	3/8	3/8	13/16	1.70	0.250
A8TMC4	—	—	1/2	1/4	13/16	1.82	0.240
A8TMC6	PP8TMC6	—	1/2	3/8	13/16	1.82	0.375
A8TMC8	PP8TMC8	—	1/2	1/2	1	2.04	0.375

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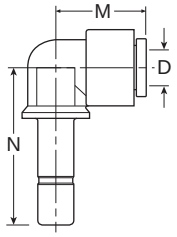
BU Bulkhead Union (Tube-to-Tube)



Gray Acetal EPDM Seal	White Polypropylene EPDM Seal	Natural Kynar Fluorocarbon Seal	Nom. Tube O.D.	C1 Hex	C2 Hex	L Overall Length	P Max. Wall Thk.	D Thru Hole Min.	Bulkhead Hole Drill Size
A4BU4-MG	PP4BU4	F4BU4	1/4	15/16	15/16	1.50	0.50	0.175	7/8
A5BU5-MG	—	—	5/16	1-1/16	1-1/16	1.75	0.62	0.188	1
A6BU4-MG	PP6BU4	—	3/8-1/4	1-1/16	1-1/16	1.75	0.62	0.175	1
A6BU6-MG	PP6BU6	F6BU6	3/8	1-1/16	1-1/16	1.75	0.62	0.250	1
A8BU8-MG	—	—	1/2	1-1/4	1-1/4	2.04	0.70	0.375	1-1/8

For nonstandard plastic collet, remove -MG suffix.

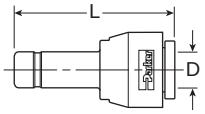
TEU Tube Elbow Union (Tube-to-Tube Stem)



Gray Acetal EPDM Seal	White Polypropylene EPDM Seal	Natural Kynar Fluorocarbon Seal	Nom. Tube O.D.	Tube Stem O.D.	M	N	D Thru Hole Min.
A4TEU4-MG	PP4TEU4	F4TEU4	1/4	1/4	.84	1.21	0.125
A4TEU6-MG	—	F4TEU6	1/4	3/8	.84	1.35	0.125
A5TEU5-MG	—	—	5/16	5/16	1.03	1.40	0.188
A6TEU4-MG	—	F6TEU4	3/8	1/4	1.03	1.29	0.125
A6TEU6-MG	PP6TEU6	F6TEU6	3/8	3/8	1.03	1.64	0.250
A8TEU8-MG	PP8TEU8	—	1/2	1/2	1.21	1.64	0.380

For nonstandard plastic collet, remove -MG suffix.

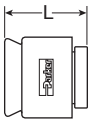
RD Tube Reducer (Tube-to-Tube Stem)



Gray Acetal EPDM Seal	White Polypropylene EPDM Seal	Natural Kynar Fluorocarbon Seal	Nom. Tube O.D.	Tube Stem O.D.	L	D Thru Hole Min.
A4RD5-MG	PP4RD5	—	1/4	5/16	1.62	0.18
A4RD6-MG	PP4RD6	—	1/4	3/8	1.62	0.18
A5RD6-MG	—	—	5/16	3/8	1.78	0.25
A5RD8-MG	—	—	5/16	1/2	1.90	0.25
A6RD8-MG	—	—	3/8	1/2	1.90	0.25

For nonstandard plastic collet, remove -MG suffix.

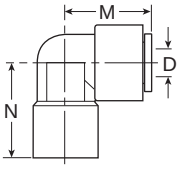
CAP Tube Cap



Gray Acetal EPDM Seal	White Polypropylene EPDM Seal	Natural Kynar Fluorocarbon Seal	Nom. Tube O.D.	L Overall Length
A4CAP-MG	PP4CAP	F4CAP	1/4	0.77
A6CAP-MG	PP6CAP	—	3/8	0.88

For nonstandard plastic collet, remove -MG suffix.

FE Female Elbow (Tube-to-Pipe)



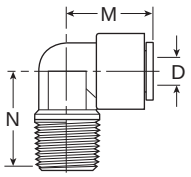
Gray Acetal EPDM Seal	White Polypropylene EPDM Seal	Natural Kynar Fluorocarbon Seal	Nom. Tube O.D.	NPTF Thread Size	M	N	D Thru Hole Min.
A4FE4-MG	—	—	1/4	1/4	0.84	1.00	0.18
A6FE4-MG	—	—	3/8	1/4	1.03	1.00	0.25
A6FE6-MG	—	—	3/8	3/8	1.03	1.00	0.25

For nonstandard plastic collet, remove -MG suffix.

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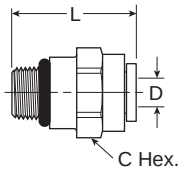
ME Male Elbow (Tube-to-Pipe)



Gray Acetal EPDM Seal	White Polypropylene EPDM Seal	Natural Kynar Fluoro-carbon Seal	Nom. Tube O.D.	NPTF Thread Size	M	N	D Thru Hole Min.
A4ME2-MG	PP4ME2	F4ME2	1/4	1/8	0.84	0.94	0.175
A4ME4-MG	PP4ME4	F4ME4	1/4	1/4	0.84	0.94	0.175
A4ME6-MG	PP4ME6	F4ME6	1/4	3/8	0.84	1.04	0.175
A5ME4-MG	—	—	5/16	1/4	1.03	1.08	0.175
A5ME6-MG	—	—	5/16	3/8	1.03	1.06	0.188
A6ME4-MG	PP6ME4	F6ME4	3/8	1/4	1.03	1.08	0.250
A6ME6-MG	PP6ME6	F6ME6	3/8	3/8	1.03	1.06	0.250

For nonstandard plastic collet, remove -MG suffix.

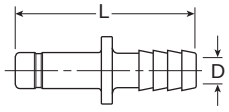
ST Straight Thread (Tube-to-Male O-ring Boss)



Gray Acetal EPDM Seal	White Polypropylene EPDM Seal	Natural Kynar Fluoro-carbon Seal	Nom. Tube O.D.	UNF-2B Thread Size	C Hex	L Overall Length	D Thru Hole Min.
A6ST9-MG	—	F6ST9 (+)	3/8	9/16-18	13/16	1.39	0.250

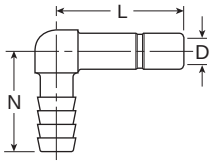
For nonstandard plastic collet, remove -MG suffix.

TCB Tube-to-Barb Connector



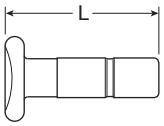
Gray Acetal	White Polypropylene	Natural Kynar	Tube Stem O.D.	Tube I.D.	L Overall Length	D Thru Hole Min.
A4TCB4	PP4TCB4	F4TCB4	1/4	1/4	1.67	0.140
A6TCB4	—	F6TCB4	3/8	1/4	1.82	0.140
A6TCB6	PP6TCB6	F6TCB6	3/8	3/8	1.98	0.250
A8TCB6	—	—	1/2	3/8	2.10	0.250
A8TCB8	—	—	1/2	1/2	2.10	0.375

TEB - Tube Elbow Barb Connector



Gray Acetal	White Polypropylene	Natural Kynar	Tube Stem O.D.	Tube I.D.	M	N	D Thru Hole Min.
A4TEB4	PP4TEB4	F4TEB4	1/4	1/4	0.89	1.00	0.140
A6TEB6	PP6TEB6	F6TEB6	3/8	3/8	1.34	1.21	0.250
A8TEB8	—	—	1/2	1/2	1.30	1.30	0.390

TPL Plug

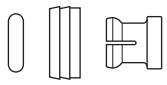


Gray Acetal	White Polypropylene	Natural Kynar	Fitting Size	L Overall Length
A4TPL	PP4TPL	F4TPL	1/4	0.88
A6TPL	PP6TPL	F6TPL	3/8	1.45
A8TPL	PP8TPL	—	1/2	1.50

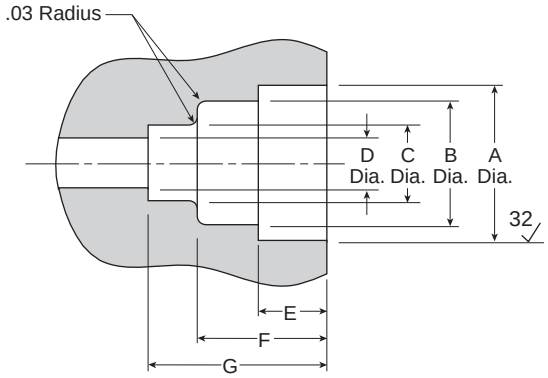
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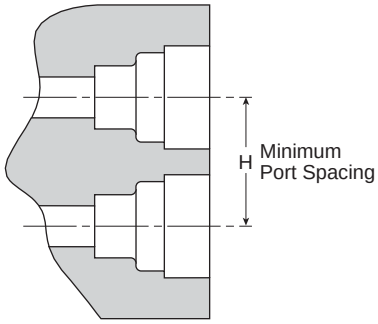
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TSC Cartridge Insert



Part Number with EPDM Seal	Nom. Tube O.D.	A* Dia. ±002	B Dia. ±003	C Dia. ±003	D Dia. Min.	E Depth ±002	F Depth ±002	G Depth ±002	H* Centerline of Ports Minimum
ATSC4-MG	1/4	.528	.421	.260	.19	.230	.435	.600	.670
ATSC6-MG	3/8	.632	.545	.385	.31	.280	.455	.705	.790
ATSC8-MG	1/2	.774	.668	.510	.41	.315	.510	.810	1.250





All sizes in inches

Parker TrueSeal™ Cartridge Inserts:

Allow you to machine or mold a tube connection into your equipment or components. By using cartridge inserts, you will reduce your material and assembly costs, reduce potential leak paths, and give your equipment a new, clean profile by eliminating the need for threaded connections. TSC Cartridge Inserts consist of 1 o-ring, 1 cartridge, and 1 collet.

*Cartridge inserts are rated at 300 psi in ports dimensioned as above and having Noryl as the receiving material. Other materials may have different ratings and require different port dimensions. Consult the Brass Products Division when using polypropylene, unfilled polypropylene, ABS or Nylon.

NORYL® is a registered trademark of the General Electric Co.

Assembly Instructions:

Step 1 Machine or mold the receiving orifice as per the above dimensions.

Step 2 Place the cartridge insert squarely onto the prepared port opening making sure that the barbs of the cartridge are going into the hole and the lettering on the face of the cartridge is visible.

Step 3 Using a rubber mallet or press, insert the cartridge into the first gland orifice until its face is flush with the top surface of the port.

Step 4 Insert the o-ring into the cartridge and seat it evenly into the second gland orifice.

Step 5 Insert the collet into the cartridge opening.

Step 6 Insert tubing.

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Polypropylene Ball Valves

For proven leak-free performance, specify Polypropylene Ball Valves. Their corrosion-resistant, all-plastic design makes them ideal for water filtration units, coffee and beverage machines and a wide variety of other fluid applications. Polypropylene material meets all FDA and NSF-51 requirements for food contact.

Features / Benefits:

- Precision molded, all-plastic design is leak free and corrosion resistant.
- Polypropylene material offers a wider chemical acceptance range, as well as a wide temperature range.
- Bi-directional flow maximizes productivity.
- Full flow design reduces pressure drop across the valve.
- Special o-ring seal ensures a reliable leak-tight connection.
- TrueSeal™ connection reduces potential leaks.

Advantages:

- Reduce costs—Built-in TrueSeal™ connection eliminates the need for a secondary fitting.
- Save space—Low-profile design allows for easy assembly and access where space is at a premium.

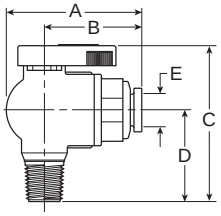
Specifications:

- Temperature range: 0°F to 225°F (-18°C to 107°C).
- O-ring seal material: Nitrile.
- NSF-51 listed.
- Pressure rated to 150 PSI with a 600 PSI burst pressure. Actual working pressures with be lower at elevated temperatures.

Assembly Instructions:

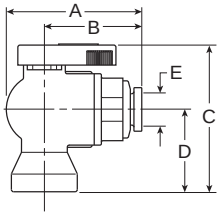
1. Inspect the mating threads for debris or damage. Remove any old fluoropolymer tape or sealant on previously used threads. If threads are damaged, replace with new adapter before proceeding.
2. Apply 2 to 3 wraps of fluoropolymer tape, Parker TrueSealant™ or an NSF/FDA approved silicon sealant. Do not user Plumbers Putty or Pipe Dope. These chemically react with plastic materials and could cause a failure.
3. Align ball valve to mating thread to ensure cross threading does not occur.
4. Screw ball valve onto mating thread 3 to 5 turns. This should be sufficient to properly seal the threads.
5. Pressurize system and check for leaks.

VME Valve Male Elbow



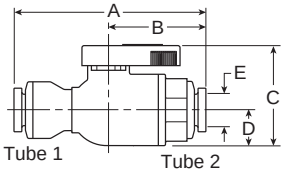
Part Number	Nom. Tube O.D.	NPTF Thread Size	A	B	C	D	E Thru Hole Min.
PP4VME2-MG (+)	1/4	1/8	1.74	1.21	2.00	1.10	0.19
PP4VME4-MG	1/4	1/4	1.74	1.21	2.18	1.28	0.19
PP4VME6-MG	1/4	3/8	1.74	1.21	2.18	1.28	0.19
PP4VME8-MG (+)	1/4	1/2	1.74	1.21	2.37	1.47	0.19
PP6VME2-MG (+)	3/8	1/8	1.85	1.32	2.00	1.10	0.25
PP6VME4-MG	3/8	1/4	1.85	1.32	2.18	1.28	0.25
PP6VME6-MG	3/8	3/8	1.85	1.32	2.18	1.28	0.25
PP6VME8-MG	3/8	1/2	1.85	1.32	2.37	1.47	0.25

VFE Valve Female Elbow



Part Number	Nom. Tube O.D.	NPTF Thread Size	A	B	C	D	E Thru Hole Min.
PP4VFE2-MG (+)	1/4	1/8	1.74	1.21	1.82	0.92	0.19
PP4VFE4-MG	1/4	1/4	1.74	1.21	2.05	1.15	0.19
PP4VFE6-MG	1/4	3/8	1.74	1.21	2.18	1.28	0.19
PP6VFE2-MG (+)	3/8	1/8	1.85	1.32	1.82	0.92	0.25
PP6VFE4-MG	3/8	1/4	1.85	1.32	2.05	1.15	0.25
PP6VFE6-MG	3/8	3/8	1.85	1.32	2.18	1.28	0.25

VUC Valve Union Connector



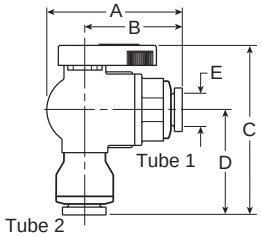
Part Number	1 Tube Size	2 Tube Size	A	B	C	D	E Thru Hole Min.
PP4VUC4-MG	1/4	1/4	2.55	1.22	1.0	0.5	0.19
PP4VUC6-MG	1/4	3/8	2.55	1.22	1.0	0.5	0.19
PP6VUC4-MG	3/8	1/4	2.57	1.30	1.4	0.5	0.19
PP6VUC6-MG	3/8	3/8	2.67	1.32	1.4	0.5	0.25

(+) Non Standard.

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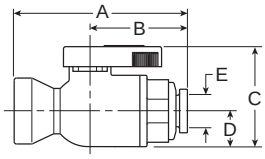
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VEU Valve Elbow Union



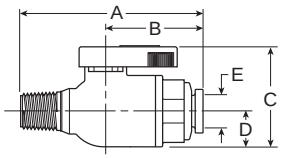
Part Number	1 Tube Size	2 Tube Size	A	B	C	D	ØE Thru Hole Min.
PP4VEU4-MG	1/4	1/4	1.75	1.22	2.33	1.42	0.19
PP4VEU6-MG	1/4	3/8	1.75	1.22	2.33	1.42	0.11
PP6VEU4-MG	3/8	1/4	1.83	1.30	2.32	1.40	0.19
PP6VEU6-MG	3/8	3/8	1.85	1.32	2.34	1.44	0.25

VFC Valve Female Connector



Part Number	Nom. Tube O.D.	NPTF Thread Size	A	B	C	D	ØE Thru Hole Min.
PP4VFC2-MG	1/4	1/8	2.04	1.21	1.4	0.5	0.19
PP4VFC4-MG	1/4	1/4	2.27	1.21	1.4	0.5	0.19
PP4VFC6-MG	1/4	3/8	2.40	1.21	1.4	0.5	0.19
PP6VFC2-MG	3/8	1/8	2.15	1.32	1.4	0.5	0.25
PP6VFC4-MG	3/8	1/4	2.38	1.32	1.4	0.5	0.25
PP6VFC6-MG	3/8	3/8	2.51	1.32	1.4	0.5	0.25

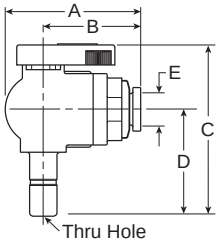
VMC Valve Male Connector



Part Number	Nom. Tube O.D.	NPTF Thread Size	A	B	C	D	ØE Thru Hole Min.
PP4VMC2-MG (+)	1/4	1/8	2.22	1.21	1.4	0.5	0.19
PP4VMC4-MG	1/4	1/4	2.40	1.21	1.4	0.5	0.19
PP4VMC6-MG	1/4	3/8	2.40	1.21	1.4	0.5	0.19
PP4VMC8-MG (+)	1/4	1/2	2.59	1.21	1.4	0.5	0.19
PP6VMC2-MG (+)	3/8	1/8	2.33	1.32	1.4	0.5	0.25
PP6VMC4-MG	3/8	1/4	2.51	1.32	1.4	0.5	0.25
PP6VMC6-MG	3/8	3/8	2.51	1.32	1.4	0.5	0.25
PP6VMC8-MG (+)	3/8	1/2	2.70	1.32	1.4	0.5	0.25

(+) Non Standard.

VTEU Valve Tube Elbow Union



Part Number	Nom. Tube O.D.	Stem	A	B	C	D	ØE Thru Hole Min.
PP4VTEU6-MG	1/4	3/8	1.75	1.22	2.43	1.50	0.17
PP6VTEU6-MG	3/8	3/8	1.83	1.30	2.43	1.50	0.25

Cold Water Supply Valve

(Patent No. 6,213,149)

Parker's water supply valve is intended for use with Point Of Use water appliances requiring a cold water supply such as POU faucets, instant hot water faucets, reverse osmosis systems and water filtration systems. The Parker TrueSeal™ Cold Water Supply Valve is designed for temporary cold water shut-off to a POU appliance to change filters, tanks or when servicing the appliance — all while maintaining full water flow to the sink or water basin above. When the POU system is removed from service, the Parker TrueSeal™ Cold Water Supply Valve is to be removed also.

TrueSeal™ Cold Water Supply Valves are for cold water service at temperatures above freezing to 125°F ambient. Not for use in hot water service applications.

Features / Benefits:

- Fast, easy installation.
- No pierced lines or saddle hookups.
- Optimum flow to the faucet - full flow porting.
- No need to pierce the supply line.
- Connects 3/8" OD tubing directly to valve.
- 1/2" NPT connections available.
- Excellent resistance to chlorine and other chemicals.
- Integrated handle for easy on/off operation.
- Visual indicator shows open/closed position.

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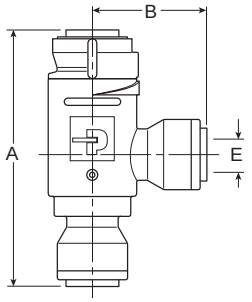
Specifications:

- NSF Standard 51 listed.
- Pressure rating: 150 PSI with a 600 PSI burst pressure.
- Design factor: 4:1
- O-ring seal material: EPDM.
- Meets the pressure integrity test of NSF-53 and NSF-58.

Applications:

- Reverse osmosis systems.
- Under sink filtration systems.
- POU faucets.
- Water supply valves are intended for cold water service at temperatures from above freezing to 125°F ambient.
- NOT for use in hot water service applications.

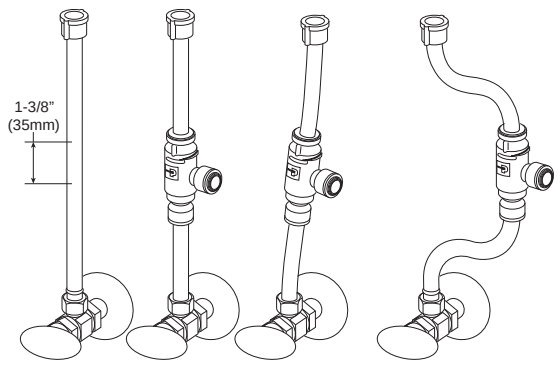
VTU Water Supply Valve



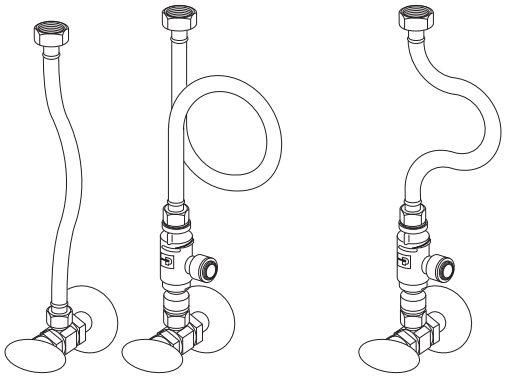
White Polypropylene	Nom. Tube O.D.	A	B	D Thru Hole Min.
PP6VTU6-MG	3/8	2.92	1.30	0.30

TrueSeal™ Cold Water Supply Valve Assembly Instructions

Installation on Existing Tubing Assembly



Installation on Existing Hose Assembly



For Installation with 3/8" Plastic Tubing:

1. Shut off water at the chrome or brass valve.
2. Disconnect existing tube assembly.
3. Cut out a 1-3/8" (35 mm) section near the center of the existing tubing. Cut the tube squarely and remove any burrs.
4. Place an insertion depth mark 3/4" (19 mm) from the end of each cut on the tubing to be reused. Refer to "TrueSeal Assembly Instructions," Steps 2 and 3, for tubing assembly (reverse side).
5. Reconnect tube assembly with new valve.
6. Make sure new valve is closed before opening water valve. Open valve in Step 1 and check for leaks.
7. Insert 3/8" tubing from water appliance into side port.
8. Open new valve by turning pointer to large end of flow indicator.

For Installation with Flexible Hose:

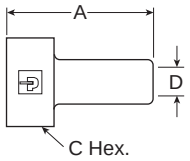
1. Shut off water at the chrome or brass valve.
2. Disconnect one end of existing hose assembly.
3. Place the appropriate adapters on the chrome or brass valve and the hose end.
4. Tighten adapter on chrome or brass valve finger tight plus 1/2 turn. Do not over tighten.
5. Push tube portion of adapters into top and bottom of valve until bottomed out. Hose should not be kinked. A longer hose assembly might be required if a gently loop cannot be made.
6. Make sure new valve is closed before opening water valve. Pointer will be at the small end of triangle flow indicator. Open valve in Step 1 and check for leaks.
7. Insert 3/8" tubing form water appliance into side port.
8. Open new valve by turning pointer to large end of flow indicator.

Water Supply Valve Kits

Part No.	Connects to:	Kit Contains
WSV4-Kit	1/4" Compression Valve	AW6TAF7-MG, AW6TFA7-MG, PP6VTU6-MG
WSV6-Kit	3/8" Compression Valve	AW6TAF9-MG, AW6TFA9-MG, PP6VTU6-MG
WSV8-Kit	1/2" NPSM Faucet Stem	AW6TAF8-MG, AW6TFA8-MG, PP6VTU6-MG

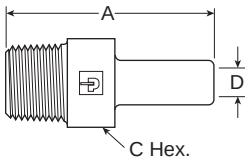
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TFA Tube Faucet Adapter (Female Thread)



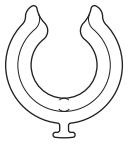
White Acetal	Tube Stem O.D.	Thread Size	A	C Hex	D Min.
AW6TFA7-MG	3/8	7/16-24	1.25	0.69	0.17
AW6TFA8-MG	3/8	1/4-14 NPSM	1.45	1.06	0.22
AW6TFA9-MG	3/8	9/16-24	1.25	0.75	0.22

TAF Tube Faucet Adapter (Male Thread)



White Acetal	Tube Stem O.D.	Thread Size	A	C Hex	D Min.
AW6TAF7-MG	3/8	7/16-24	1.41	0.50	0.22
AW6TAF8-MG	3/8	1/4-14 NPSM	1.65	0.88	0.22
AW6TAF9-MG	3/8	9/16-24	1.45	0.63	0.22

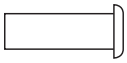
SC Safety Clip (Patent No. 6,065,779)



Part Number	Part Number	For Nominal Tube O.D.
SC-4	SC-4-B	1/4
SC-5	SC-5-B	5/16
SC-6	SC-6-B	3/8
SC-8	SC-8-B	1/2

Standard color is black or blue. Other colors available upon request.

TS Tube Supports



Nylon Part Number	Polypropylene Part Number
N4TS3	P4TS3
N5TS3	P5TS3
N6TS4	P6TS4
N8TS6	P8TS6

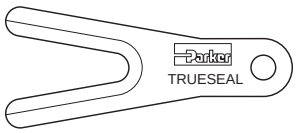
To be used with soft durometer tubing.

PTS Pipe Thread Sealant



NSF-51listed silicone.

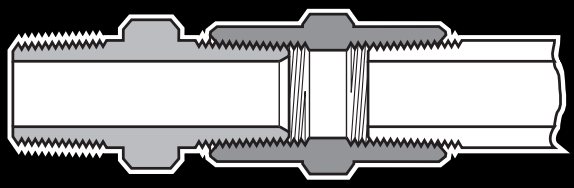
AQRT - Quick Release Tool



Makes disconnection of tube adapters and tubing a breeze.

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Pipe Fittings

Advantages

All pipe fitting threads are made to Dryseal standards. Connectors, unions, nuts and extruded elbows and tees are machined from CA 360 or CA 345 brass rod; forged elbows and tees are machined from CA 377 brass.

Approvals

Meets functional requirements of the SAE J530, and SAE J531.

Applications

Use with brass, copper, or iron pipe. Manufactured for low and medium pressure line connection work.

Temperature and Working Pressure Ranges

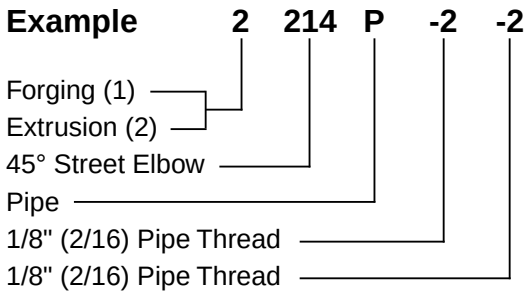
From -65°F to 250°F at 1000 PSI.

Vibration

Fair resistance to vibration and pipe movement depending upon conditions.

Nomenclature

Part numbers are constructed from symbols that identify the style and size of the fitting. The first series of numbers and letters identifies the style and type fitting. The second series of numbers describes the size.



Sizes

Pipe sizes are determined by the number of sixteenths of an inch in the pipe size.

Special Fittings

Fitting configurations and/or sizes other than those shown in the catalog can be furnished. It is suggested that a print or sketch be submitted with the inquiry.

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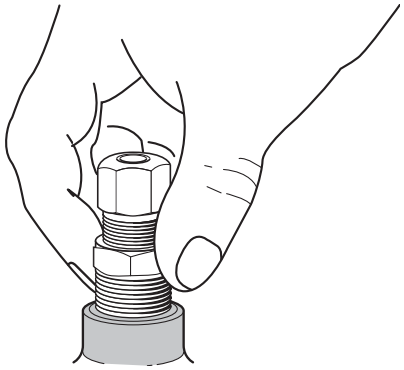
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Pipe Thread Assembly Guide (Turns Method) for Dryseal Threads with Pre-applied Vibra Seal

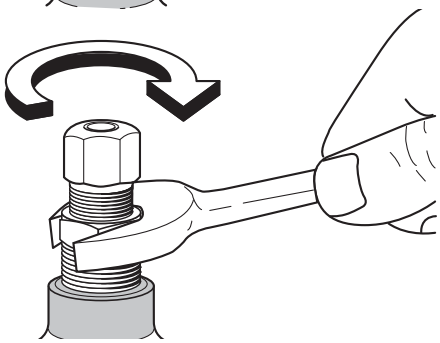
Straight Fittings

1. Tighten external thread into the internal thread.
2. Tighten an additional 2 revolutions with a wrench up to 1/2 inch male pipe thread. Above 1/2 inch, 1-1/2 to 2-1/2 revolutions.

Finger Tight



Wrench Tight

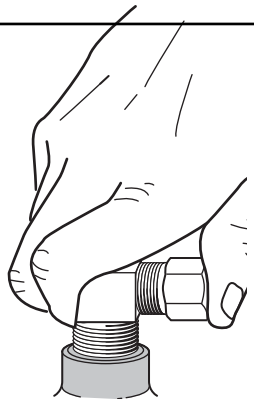


Elbow or Tee Fittings

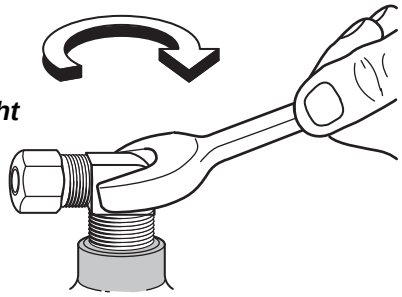
1. Tighten external thread into the internal thread.
2. Tighten an additional 1 to 1-1/2 revolutions with a wrench.
3. Tighten fitting, Clockwise, to Align with Tubing (never counter clockwise).

   Note: To minimize the possibility of a leaking threaded joint after assembling male to female pipe threads, neither end should be backed out (loosened) once the assembly has been made.

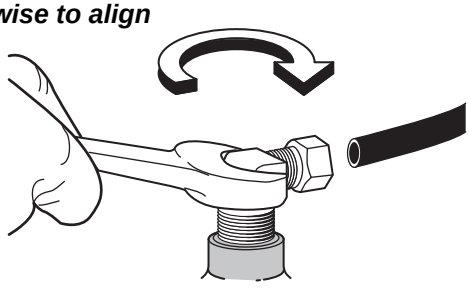
Finger Tight



Wrench Tight



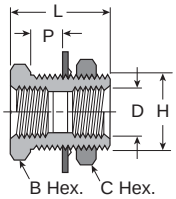
Clockwise to align

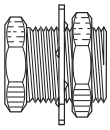


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207ACBH Anchor Connector

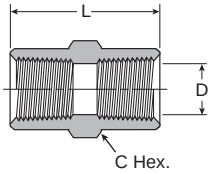


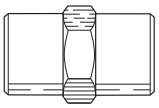


Part No.	Female Pipe Thread	Straight Thread	B Hex.	C Hex.	Bulk-head Hole Dia. H	L	P Max.	Flow Dia. D
207ACBH-2	1/8	5/8-18	7/8	15/16	5/8	1.50	0.89	0.339
207ACBHS-2	1/8	5/8-18	7/8	15/16	5/8	0.96	0.35	0.339
207ACBH-4	1/4	3/4-16	1	1-1/8	3/4	1.50	0.81	0.441
207ACBHS-4	1/4	3/4-16	1	1	3/4	0.94	0.26	0.441
207ACBH-6	3/8	1-14	1-1/8	1-1/4	1	1.31	0.62	0.571
207ACBH-8	1/2	1-1/8-14	1-1/4	1-3/8	1-1/8	1.50	0.75	0.703
207ACBH-12	1/2	1-5-16-14	1-1/2	1-1/2	1-5/16	1.50	0.65	0.906
207ACBH-16*	1/2	1-5/8-14	2	2	1-5/8	1.68	1.00	1.140

* Lock Washer Not Available

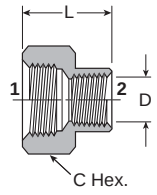
207P Coupling

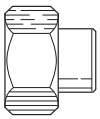




Part No.	Pipe Thread	C Hex.	L	Flow Dia. D
207P-2	1/8	9/16	0.75	0.339
207P-4	1/4	3/4	1.12	0.441
207P-6	3/8	7/8	1.12	0.571
207P-8	1/2	1-1/16	1.50	0.703
207P-12	3/4	1-3/8	1.53	0.906

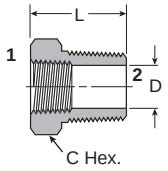
208P Reducer Coupling

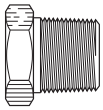




Part No.	1 Pipe Thread	2 Pipe Thread	C Hex.	L	Flow Dia. D
208P-4-2	1/4	1/8	3/4	0.97	0.339
208P-6-4	3/8	1/4	7/8	1.16	0.441
208P-8-4	1/2	1/4	1-1/16	1.28	0.441
208P-8-6	1/2	3/8	1-1/16	1.38	0.571
208P-12-6	3/4	3/8	1-3/8	1.32	0.571
208P-12-8	3/4	1/2	1-3/8	1.50	0.703

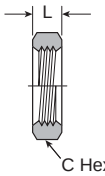
209P Bushing





Part No.	1 Pipe Thread	2 Pipe Thread	C Hex.	L	Flow Dia. D
209P-4-2	1/8	1/4	9/16	0.75	0.339
209P-6-2	1/8	3/8	11/16	0.75	0.339
209P-6-4	1/4	3/8	11/16	0.75	0.441
209P-8-2	1/8	1/2	7/8	1.00	0.339
209P-8-4	1/4	1/2	7/8	1.00	0.441
209P-8-6	3/8	1/2	7/8	1.00	0.571
209P-12-2	1/8	3/4	1-1/8	1.00	0.339
209P-12-4	1/4	3/4	1-1/8	1.00	0.441
209P-12-6	3/8	3/4	1-1/8	1.00	0.571
209P-12-8	1/2	3/4	1-1/8	1.00	0.703
209P-16-8	1/2	1	1-3/8	1.31	0.703
209P-16-12	3/4	1	1-3/8	1.31	0.906

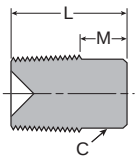
210P Lock Nut

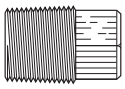




Part No.	Pipe Thread	C Hex.	L
210P-2	1/8 NPSL	11/16	0.19
210P-4	1/4 NPSL	7/8	0.25
210P-6	3/8 NPSL	1	0.25
210P-8	1/2 NPSL	1-1/8	0.25

211P Square-head Plug



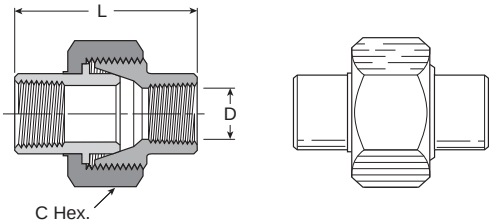


Part No.	Pipe Thread	C Square	L	M
211P-2	1/8	9/32	.59	.25
211P-4	1/4	3/8	.80	.29
211P-6	3/8	15/32	.80	.32
211P-8	1/2	9/16	1.07	.39
211P-12	3/4	5/8	1.14	.45

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212P Union



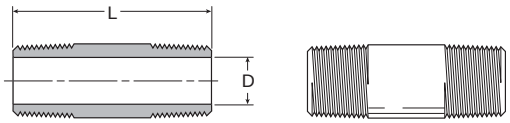
Part No.	Pipe Thread	C Hex.	L	Flow Dia. D
212P-4	1/4	1-3/16	1.54	0.441
212P-6	3/8	1-1/4	1.76	0.571

213P Cap



Part No.	Pipe Thread	C Hex.	L
213P-2	1/8	9/16	0.50
213P-4	1/4	11/16	0.63
213P-6	3/8	13/16	0.63
213P-8	1/2	1-1/16	0.87
213P-12	3/4	1-1/4	0.89

215PNL Long Nipple



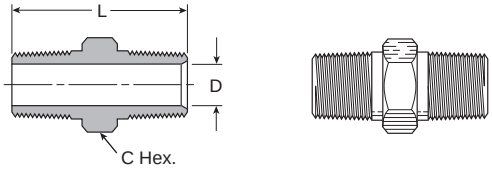
Part No.	Pipe Thread	L	Flow Dia. D
215PNL-2-15	1/8	1-1/2	0.250
215PNL-4-15	1/4	1-1/2	0.375
215PNL-6-15	3/8	1-1/2	0.500
215PNL-8-15	1/2	1-1/2	0.625
215PNL-2-20	1/8	2	0.250
215PNL-4-20	1/4	2	0.375
215PNL-6-20	3/8	2	0.500
215PNL-8-20	1/2	2	0.625
215PNL-2-25	1/8	2-1/2	0.250
215PNL-4-25	1/4	2-1/2	0.375
215PNL-6-25	3/8	2-1/2	0.500
215PNL-8-25	1/2	2-1/2	0.625
215PNL-2-30	1/8	3	0.250
215PNL-4-30	1/4	3	0.375
215PNL-6-30	3/8	3	0.500
215PNL-8-30	1/2	3	0.625
215PNL-2-35	1/8	3-1/2	0.250
215PNL-4-35	1/4	3-1/2	0.375
215PNL-6-35	3/8	3-1/2	0.500
215PNL-8-35	1/2	3-1/2	0.625

215PN Close Nipple



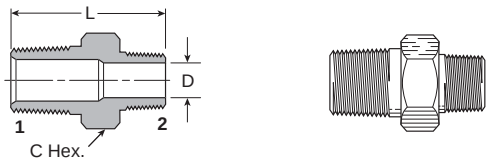
Part No.	Pipe Thread	L	Flow Dia. D
215PN-2	1/8	0.75	0.281
215PN-4	1/4	0.88	0.375
215PN-6	3/8	1.00	0.500
215PN-8	1/2	1.13	0.625
215PN-12	3/4	1.31	0.750

216P Hex Nipple



Part No.	Pipe Thread	C Hex.	L	Flow Dia. D
216P-2	1/8	7/16	0.97	0.220
216P-4	1/4	9/16	1.38	0.314
216P-6	3/8	11/16	1.41	0.440
216P-8	1/2	7/8	1.81	0.564
216P-12	3/4	1-1/16	1.81	0.752

216P Reducers

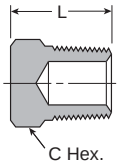


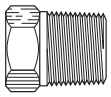
Part No.	1 Pipe Thread	2 Pipe Thread	C Hex.	L	Flow Dia. D
216P-4-2	1/4	1/8	9/16	1.19	0.220
216P-6-2	3/8	1/8	11/16	1.22	0.220
216P-6-4	3/8	1/4	11/16	1.41	0.314
216P-8-4	1/2	1/4	7/8	1.62	0.314
216P-8-6	1/2	3/8	7/8	1.62	0.440
216P-12-8	3/4	1/2	1-1/16	1.80	0.564

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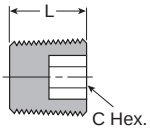
218P Hex-head Plug





Part No.	Pipe Thread	C Hex.	L
218P-2	1/8	7/16	0.560
218P-4	1/4	9/16	0.747
218P-6	3/8	11/16	0.780
218P-8	1/2	7/8	0.970
218P-12	3/4	1-1/16	1.054

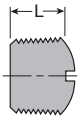
219P Countersunk Hex-head Plug





Part No.	Pipe Thread	C Hex.	L
219P-2	1/8	3/16	0.30
219P-4	1/4	1/4	0.46
219P-6	3/8	5/16	0.46
219P-8	1/2	3/8	0.61
219P-12	3/4	9/16	0.62

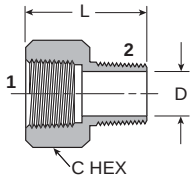
220P Slotted Head Plug

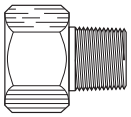




Part No.	Pipe Thread	L
220P-2	1/8	0.31
220P-4	1/4	0.42
220P-6	3/8	0.43

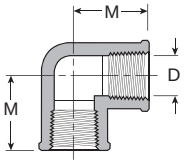
222P Adapter

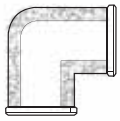




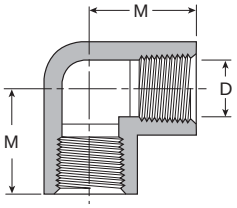
Part No.	1 Pipe Thread	2 Pipe Thread	C Hex.	L	Flow Dia. D
222P-2-2	1/8	1/8	9/16	0.88	.220
222P-4-2	1/4	1/8	3/4	1.06	.220
222P-4-4	1/4	1/4	3/4	1.25	.314
222P-6-2	3/8	1/8	7/8	1.10	.220
222P-6-4	3/8	1/4	7/8	1.25	.314
222P-6-6	3/8	3/8	7/8	1.25	.440
222P-8-4	1/2	1/4	1	1.47	.314
222P-8-6	1/2	3/8	1-1/16	1.47	.440
222P-8-8	1/2	1/2	1-1/16	1.66	.564
222P-12-6	3/4	3/8	1-3/8	1.50	.440
222P-12-8	3/4	1/2	1-3/8	1.69	.564
222P-12-12	3/4	3/4	1-3/8	1.69	.752

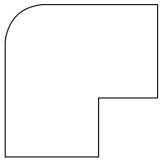
1200P-2200P Union Elbow 90°.





1200P





2200P

Part No.	Pipe Thread	M	Dia. D
1200P-2-2	1/8	.56	0.329
2200P-2-2	1/8	.55	0.339
1200P-4-4	1/4	.81	0.441
2200P-4-4	1/4	.78	0.441
1200P-6-6	3/8	.84	0.571
2200P-6-6	3/8	.84	0.571
2200P-8-8	1/2	1.07	0.703

N

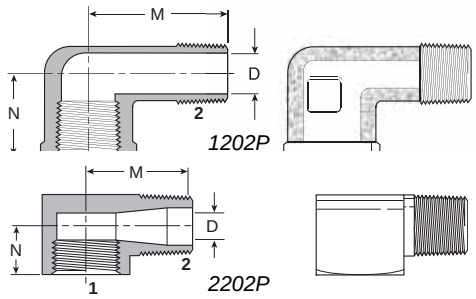
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1201P- 2201P Female Elbow 45°



Part No.	Pipe Thread	M	Flow Dia. D
2201P-2-2	1/8	0.43	0.339
1201P-8-8	1/2	0.89	0.703

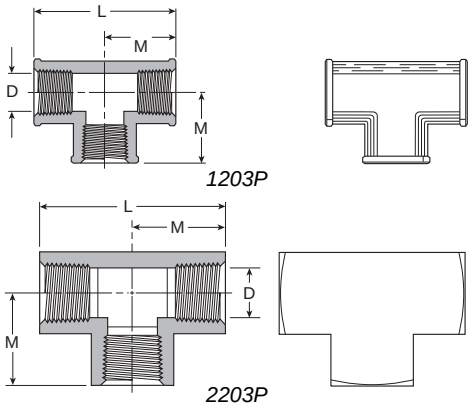
1202P-2202P Street Elbow 90°



Part No.	1 Pipe Thread	2 Pipe Thread	M	N	Flow Dia. D
1202P-2-2	1/8	1/8	0.81	0.56	0.22
2202P-2-2	1/8	1/8	0.62	0.48	0.22
2202PA-2-2*	1/8	1/8	0.66	0.48	0.22
2202P-4-2	1/4	1/8	0.72	0.45	0.23
1202P-4-4	1/4	1/4	1.08	0.69	0.31
2202P-4-4	1/4	1/4	0.91	0.45	0.34
2202PA-4-4*	1/4	1/4	0.91	0.72	0.31
2202P-4-6	1/4	3/8	0.97	0.78	0.43
1202P-6-4	3/8	1/4	1.25	0.78	0.31
1202P-6-6	3/8	3/8	1.25	0.78	0.42
2202P-6-6	3/8	3/8	0.98	0.54	0.41
2202PA-6-6*	3/8	3/8	0.97	0.78	0.43
1202P-6-8	3/8	1/2	1.53	1.01	0.56
1202P-8-6	1/2	3/8	1.25	0.97	0.42
2202P-8-8	1/2	1/2	1.25	1.03	0.56
2202P-12-8	3/4	1/2	1.39	1.10	0.56
2202P-12-12	3/4	3/4	1.39	1.10	0.75

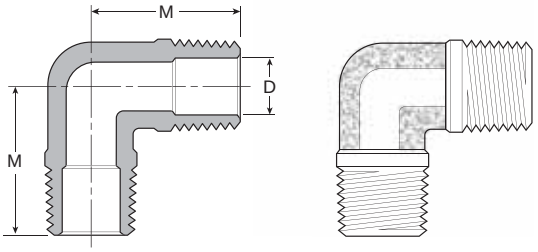
* Meets SAE dimensions.

1203P-2203P Union Tee



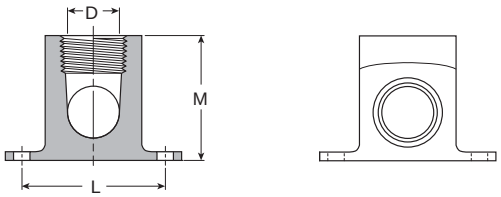
Part No.	Pipe Thread	L	M	Flow Dia. D
1203P-2	1/8	1.12	0.56	0.339
2203P-2	1/8	1.06	0.53	0.339
1203P-4	1/4	1.38	0.69	0.441
2203P-4	1/4	1.52	0.76	0.441
2203P-6	3/8	1.68	0.84	0.571
1203P-8	1/2	2.14	1.07	0.703
2203P-8	1/2	2.14	1.07	0.703
2203P-12	3/4	2.28	1.14	0.906

1204P Male Elbow



Part No.	Pipe Thread	M	Flow Dia. D
1204P-2	1/8	0.71	0.220
1204P-4	1/4	1.09	0.312
1204P-6	3/8	1.09	0.408
1204P-8	1/2	1.41	0.502

2200PDE Drop-ear Elbow 90°

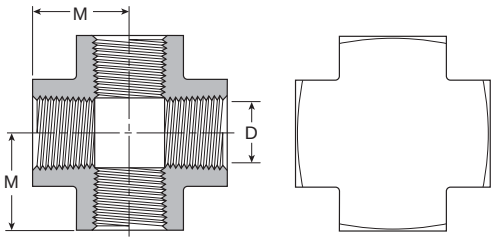


Part No.	Pipe Thread	L	M	Dia. D
2200PDE-2	1/8	1.38	1.00	0.339

N

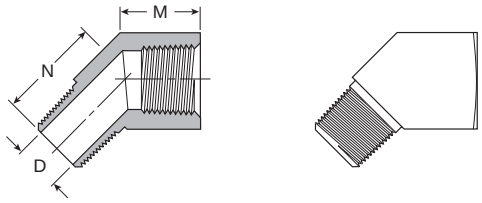
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2205P Cross



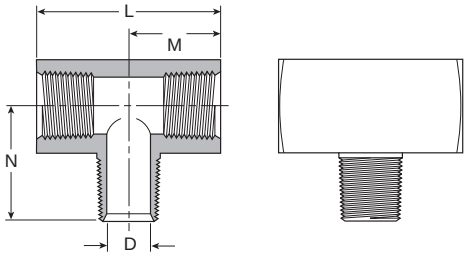
Part No.	Pipe Thread	M	Flow Dia. D
2205P-2	1/8	0.53	0.339
2205P-4	1/4	0.75	0.441
2205P-6	3/8	0.81	0.571
2205P-8	1/2	1.07	0.703
2205P-12	3/4	1.14	0.906

2214P 45° Street Elbow



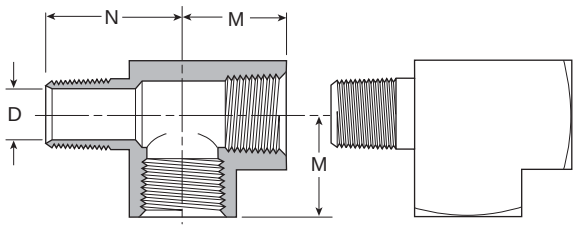
Part No.	Pipe Thread	M	N	Flow Dia. D
2214P-2-2	1/8	.38	.50	.220
2214P-4-4	1/4	.54	.70	.314
2214P-6-6	3/8	.54	.78	.440
2214P-8-8	1/2	.73	1.00	.564

2224P Male Branch Tee



Part No.	Pipe Thread	L	M	N	Flow Dia. D
2224P-2	1/8	1.06	.53	.66	.220
2224P-4	1/4	1.52	.76	.91	.314
2224P-6	3/8	1.68	.84	.97	.440
2224P-8	1/2	2.18	1.09	1.25	.564
2224P-12	3/4	2.32	1.16	1.38	.752

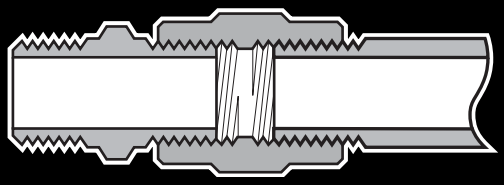
2225P Street Tee



Part No.	Pipe Thread	M	N	Flow Dia. D
2225P-2	1/8	.53	.66	.220
2225P-4	1/4	.76	.91	.314
2225P-6	3/8	.84	.98	.440
2225P-8	1/2	1.07	1.26	.564
2225P-12	3/4	1.14	1.38	.752

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Parker Brass Metric Adapters

Advantages

To simplify the installation of pneumatic systems, Parker supplies a comprehensive range of adapters for NPT, BSPP, and BSPT pipe threads. Pipe nipples, pipe connectors, reducing connectors, pipe thread reducers, bulkhead female unions, elbows, tees, crosses and hex head plugs.

Parker brass adapters are produced from forgings and extrusions to meet exacting requirements. The hot forging process increases the density of the material, refines the grain structure and improves material strength.

Applications

Use with brass, copper, or iron pipe. Manufactured for low- and medium-pressure line connection work.

Working Pressure and Temperature Ranges

From -65° to +250° at 1000 psi.

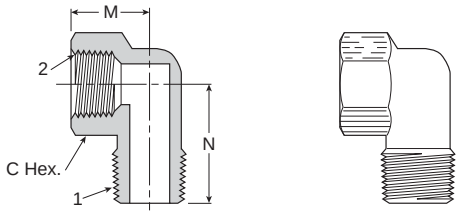
Vibration

Fair resistance to vibration and pipe movement depending upon conditions.

N

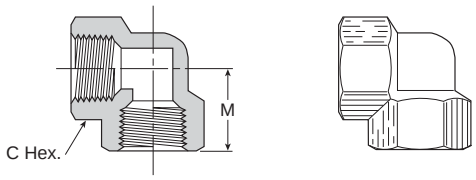
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CD43 90° Elbow Male-Female (BSPT-BSPP)



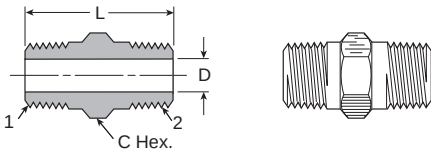
Part No.	BSPT 1	BSPP 2	C Hex. (mm)	M (mm)	N (mm)
1/8CD43B	1/8	1/8	14	14	20
1/4CD43B	1/4	1/4	17	18	25
3/8CD43B	3/8	3/8	22	19	29
1/2CD43B	1/2	1/2	27	24	37

DD44 90° Elbow (BSPP)



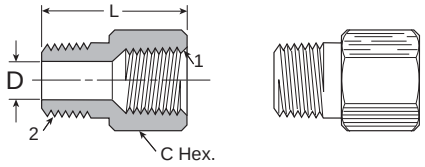
Part No.	BSPP	C Hex. (mm)	M (mm)
1/8DD44B	1/8	14	15
1/4DD44B	1/4	17	18
3/8DD44B	3/8	22	22
1/2DD44B	1/2	27	29

F3HF Hex Nipple NPTF (BSPT)



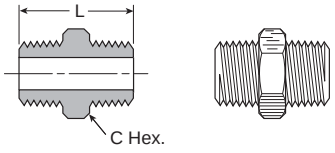
Part No.	NPTF 1	BSPT 2	C Hex.	L	Flow Dia. D
1/8F3HF-B	1/8	1/8	7/16	1.07	0.22
1/4F3HF-B	1/4	1/4	9/16	1.58	0.31
3/8F3HF-B	3/8	3/8	11/16	1.16	0.44
1/2F3HF-B	1/2	1/2	7/8	2.01	0.56

F3HG Adapter NPTF Male (BSPT)



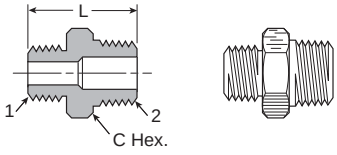
Part No.	NPTF 1	BSPT 2	C Hex.	L	Flow Dia. D
1/8F3HG-B	1/8	1/8	9/16	0.93	0.22
1/4F3HG-B	1/4	1/4	3/4	1.35	0.31
3/8F3HG-B	3/8	3/8	7/8	1.35	0.44
1/2F3HG-B	1/2	1/2	1-1/16	1.76	0.56

FF33 Pipe Nipple (BSPT)



Part No.	BSPP	C Hex. (mm)	L (mm)
1/8FF33B	1/8	10	19
1/4FF33B	1/4	14	27
3/8FF33B	3/8	17	28
1/2FF33B	1/2	22	36
3/4FF33B	3/4	27	40
1FF33B	1	36	46

FF33 Unequal Pipe Nipple (BSPT)

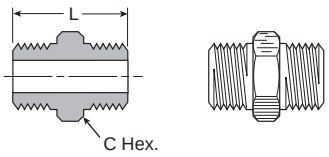


Part No.	BSPT 1	BSPT 2	C Hex. (mm)	L (mm)
1/8x1/4FF33B	1/8	1/4	14	23
1/8x3/8FF33B	1/8	3/8	17	24
1/8x1/2FF33B	1/8	1/2	22	28
1/4x3/8FF33B	1/4	3/8	17	28
1/4x1/2FF33B	1/4	1/2	22	31
3/8x1/2FF33B	3/8	1/2	22	32
3/8x3/4FF33B	3/8	3/4	27	35
1/2x3/4FF33B	1/2	3/4	27	38
3/4x1FF33B	3/4	1	36	43

N

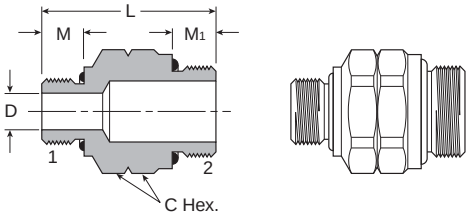
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FF44 Pipe Nipple (BSPP)



Part No.	BSPP	C Hex. (mm)	L (mm)
1/8FF44B	1/8	14	19
1/4FF44B	1/4	17	22
3/8FF44B	3/8	22	24
1/2FF44B	1/2	27	31

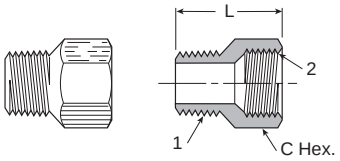
M16M22F8UHA8UB
Metric Straight Thread Union



Part No.	Metric Thd. 1	Metric Thd. 2	C Hex. (mm)	L (mm)	M (mm)	M1 (mm)	Flow Dia. D (mm)
M16M22F8UHA8UB	M16X1.5	M22X1.5	43	27	10	12.5	9

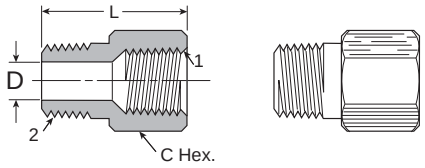
Note: Fluorocarbon o-ring is standard

FG43 Reducing Connector Female-Male (BSPP-BSPT)



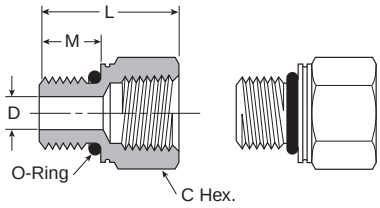
Part No.	BSPT 1	BSPP 2	C Hex. (mm)	L (mm)
1/4x1/8FG43B	1/8	1/4	17	23
3/8x1/8FG43B	1/8	3/8	22	25
3/8x1/4FG43B	1/4	3/8	22	28
1/2x1/8FG43B	1/8	1/2	27	29
1/2x1/4FG43B	1/4	1/2	27	32
1/2x3/8FG43B	3/8	1/2	27	31
3/4x1/2FG43B	1/2	3/4	32	39
1x3/4FG43B	3/4	1	41	38

FHG4 Adapter Male (NPTF-BSPP)



Part No.	BSPP 1	NPTF 2	C Hex.	L	Flow Dia. D
1/8FHG4-B	1/8	1/8	0.562	0.870	0.22
1/4FHG4-B	1/4	1/4	0.750	1.125	0.31
3/8FHG4-B	3/8	3/8	0.875	1.125	0.44
1/2FHG4-B	1/2	1/2	1.062	1.660	0.60

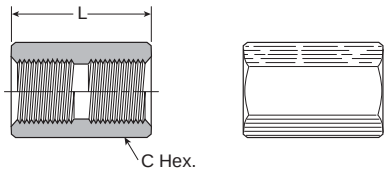
222P-X-MIX Pipe to Metric Adapter



Part No.	NPTF	Metric Thd. 1	C Hex.	L	M	Flow Dia. D
222P-2-MI10	1/8-27	M10 x 1.0	9/16	0.75	0.34	0.18
222P-2-MI14	1/8-27	M14 x 1.5	3/4	0.91	0.43	0.30
222P-4-MI12	1/4-18	M12 x 1.5	11/16	1.09	0.43	0.24
222P-6-MI16	3/8-18	M16 x 1.5	7/8	1.10	0.45	0.35
222P-6-MI22	3/8-18	M22 x 1.5	1-1/16	1.05	0.37	0.47
222P-8-MI27	1/2-14	M27 x 2.0	1-1/4	1.32	0.63	0.60

Note: Fluorocarbon o-ring is standard

GG44 Pipe Connector (BSPP)

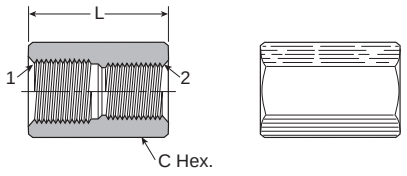


Part No.	BSPP	C Hex. (mm)	L (mm)
1/8GG44B	1/8	14	16
1/4GG44B	1/4	17	20
3/8GG44B	3/8	22	24
1/2GG44B	1/2	27	28
3/4GG44B	3/4	32	32
1GG44B	1	41	36

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GG44 Unequal Pipe Connector (BSPP)



Part No.	BSPP 1	BSPP 2	C Hex. (mm)	L (mm)
1/8x1/4GG44B	1/8	1/4	17	18
1/8x3/8GG44B	1/8	3/8	22	20
1/8x1/2GG44B	1/8	1/2	27	22
1/4x3/8GG44B	1/4	3/8	22	22
1/4x1/2GG44B	1/4	1/2	27	24
3/8x1/2GG44B	3/8	1/2	17	26

HHP3 Hollow Hex Head Plug (BSPT)



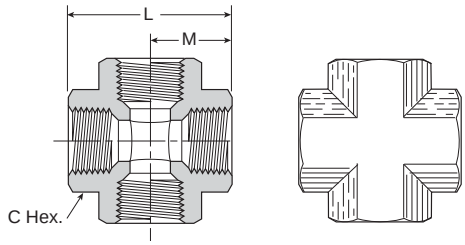
Part No.	BSPP	C Hex. (mm)	L (mm)
1/8HHP3B	1/8	5	8
1/4HHP3B	1/4	6	10
3/8HHP3B	3/8	8	11
1/2HHP3B	1/2	10	13

HP3 Hex Plug (BSPT)



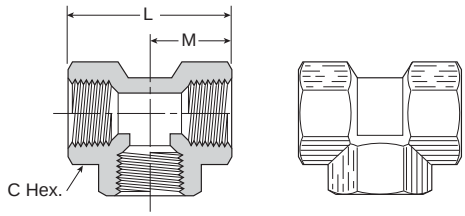
Part No.	BSPP	C Hex. (mm)	L (mm)
1/8HP3B	1/8	10	12
1/4HP3B	1/4	14	16
3/8HP3B	3/8	17	17
1/2HP3B	1/2	22	21
3/4HP3B	3/4	27	24
1HP3B	1	36	27

KMMOO4 Pipe Cross (BSPP)



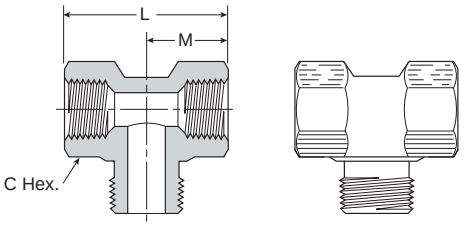
Part No.	BSPP	C Hex. (mm)	L (mm)	M (mm)
1/8KMMOO4B	1/8	14	29	14.5
1/4KMMOO4B	1/4	17	36	18.0
3/8KMMOO4B	3/8	22	44	22.0
1/2KMMOO4B	1/2	27	58	29.0

MMO444 Pipe Tee (BSPP)



Part No.	BSPP	C Hex. (mm)	L (mm)	M (mm)
1/8MMO444B	1/8	14	29	14.5
1/4MMO444B	1/4	17	36	18.0
3/8MMO444B	3/8	22	44	22.0
1/2MMO444B	1/2	27	58	29.0
3/4MMO444B	3/4	32	62	31.0
1MMO444B	1	40	85	42.5

MMS443 Branch Tee
(Female BSPP - Male BSPT - Female BSPP)

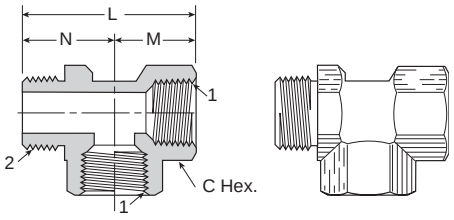


Part No.	BSPP 1	BSPT 2	L	M	N
1/8MMS443B	1/8	1/8	29	14.5	17
1/4MMS443B	1/4	1/4	36	18.0	22
3/8MMS443B	3/8	3/8	48	24.0	25
1/2MMS443B	1/2	1/2	62	31.0	32

N

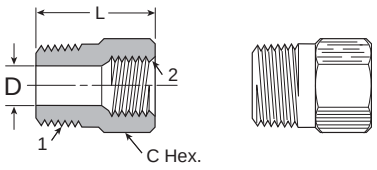
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MRO434 Run Tee
(Female BSPP - Female BSPP - Male BSPT)



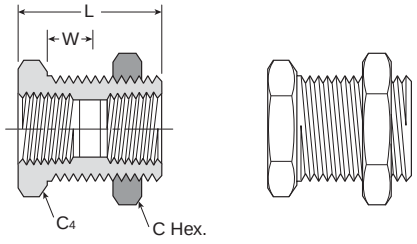
Part No.	BSPP 1	BSPT 2	C Hex. (mm)	L (mm)	M (mm)	N (mm)
1/8MRO434B	1/8	1/8	14	32	15	17
1/4MRO434B	1/4	1/4	17	40	18	22
3/8MRO434B	3/8	3/8	24	49	24	25
1/2MRO434B	1/2	1/2	30	63	31	32

PTR34 Pipe Thread Reducer
(Male BSPT - Female BSPP)



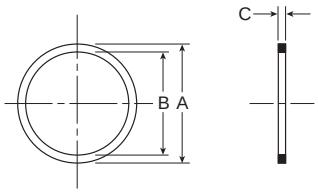
Part No.	BSPT 1	BSPP 2	C Hex. (mm)	L (mm)
1/4x1/8PTR34B	1/4	1/8	14	16
3/8x1/8PTR34B	3/8	1/8	17	17
3/8x1/4PTR34B	3/8	1/4	17	17
1/2x1/8PTR34B	1/2	1/8	22	22
1/2x1/4PTR34B	1/2	1/4	22	22
1/2x3/8PTR34B	1/2	3/8	22	22
3/4x3/8PTR34B	3/4	3/8	27	23
3/4x1/2PTR34B	3/4	1/2	27	23
1x1/2PTR34B	1	1/2	36	27
1x3/4PTR34B	1	3/4	36	27

WGG44 Bulkhead Female Union (BSPP)



Part No.	BSPP	Straight Thread	C Hex. (mm)	C_4 (mm)	L (mm)	W (mm)
1/8WGG44B	1/8	M16x1.5	19	22	22	12
1/4WGG44B	1/4	M20x1.5	24	24	22	12
3/8WGG44B	3/8	M23x1.5	27	27	24	12
1/2WGG44B	1/2	M27x1.5	32	32	28	14
3/4WGG44B	3/4	M34x1.5	41	41	31	13
1WGG44B	1	M45x2	55	55	36	12

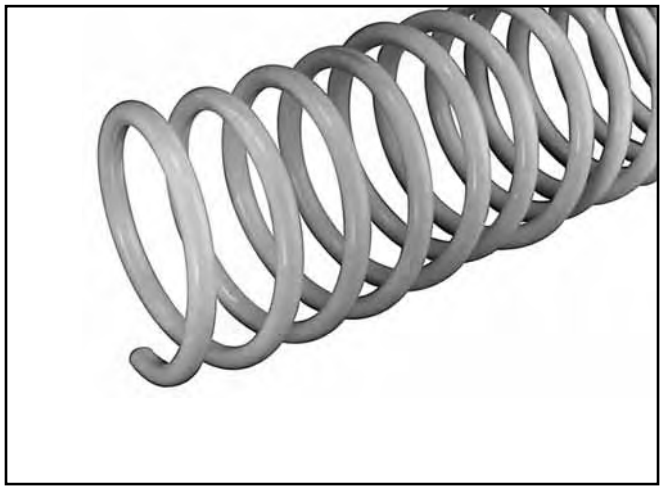
Copper Rings for BSPP

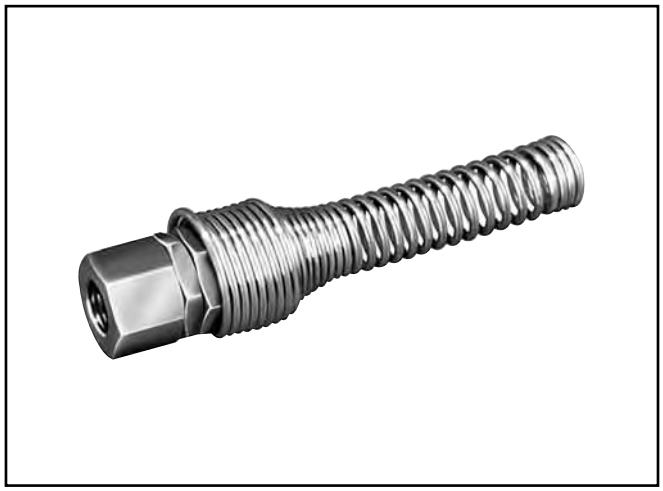


Part No.	BSPP	A (mm)	B (mm)	C (mm)
112-5-10	1/8	16.0	9.9	1.5
112-8-13	1/4	19.0	13.5	1.5
112-12-17	3/8	24.0	16.9	1.5
112-15-21	1/2	27.0	21.2	2.0

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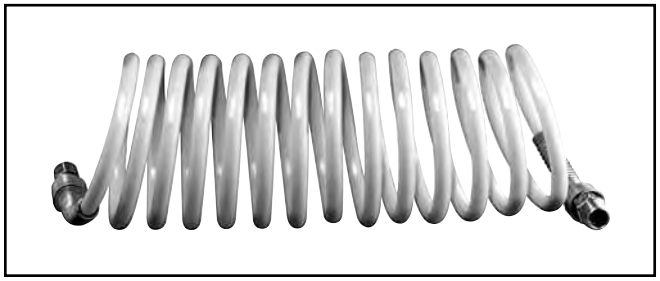


Advantages

FS self retracting air hose is manufactured from an extremely tough, abrasion resistant nylon. FS hose has excellent “memory” characteristics over a wide temperature range for long service life in the most rugged applications. The SAFETY YELLOW color of FS hose is highly desirable due to U.S. Government “OSHA” directives. Service temperature range from -40°F to 200°F.

Advantages

Fittings for FS hose are heavy duty brass construction with built in insert-supports. Fitting bodies are SAE standard sizes. Hose entry length into the fittings is the longest in the industry due to SAE body design and size standardization, assuring a strong grip on the hose.



Popular Stock Assemblies

Assembly Part No.	FS Hose I.D.	Total Length of Hose	Usable Length	Fitting End #1	Fitting End #2 (Live Swivel)
A0312-MC4-ML4	3/16"	12'	9'	1/4" MPT	1/4" MPT
A0325-MC4-ML4	3/16"	25'	18'	1/4" MPT	1/4" MPT
A0350-MC4-ML4	3/16"	50'	38'	1/4" MPT	1/4" MPT
A0412-MC4-ML4	1/4"	12'	9'	1/4" MPT	1/4" MPT
A0425-MC4-ML4	1/4"	25'	18'	1/4" MPT	1/4" MPT
A0450-MC4-ML4	1/4"	50'	38'	1/4" MPT	1/4" MPT
A0612-MC6-ML6	3/8"	12'	9'	3/8" MPT	3/8" MPT
A0625-MC6-ML6	3/8"	25'	18'	3/8" MPT	3/8" MPT
A0650-MC6-ML6	3/8"	50'	38'	3/8" MPT	3/8" MPT
A0812-MC8-ML8	1/2"	12'	9'	1/2" MPT	1/2" MPT
A0825-MC8-ML8	1/2"	25'	18'	1/2" MPT	1/2" MPT
A0850-MC8-ML8	1/2"	50'	38'	1/2" MPT	1/2" MPT

Bulk hose FS

Part No.	Hose I.D.	Average Wall Thick.	Hose Length	Master Carton Quantity	Coil Min. I.D.	Coil Max. O.D.	Maximum Working Pressure psi*
FS-03-100	3/16"	.023	100'	600'	2.0	2.5	170
FS-04-100	1/4"	.030	100'	600'	3.0	3.7	170
FS-06-100	3/8"	.045	100'	400'	4.5	5.5	170
FS-08-100	1/2"	.062	100'	400'	6.5	7.8	170
FS-12-100	3/4"	.075	100'	100'	12.0	14.0	170

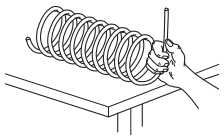
*Maximum working pressure listed at 75°F or lower and based on safety factor of 4:1 over burst.

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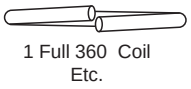
Measuring Bulk Hose

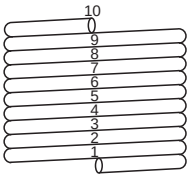
Measuring FS hose is quick and easy and may be accomplished by either of two accurate methods:

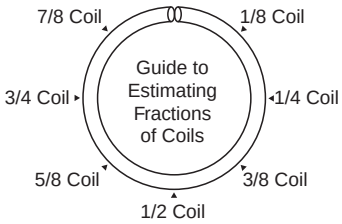


Position bulk length coils on work table extending away from you, cut-end up in 12:00 o'clock position.

1. Counting





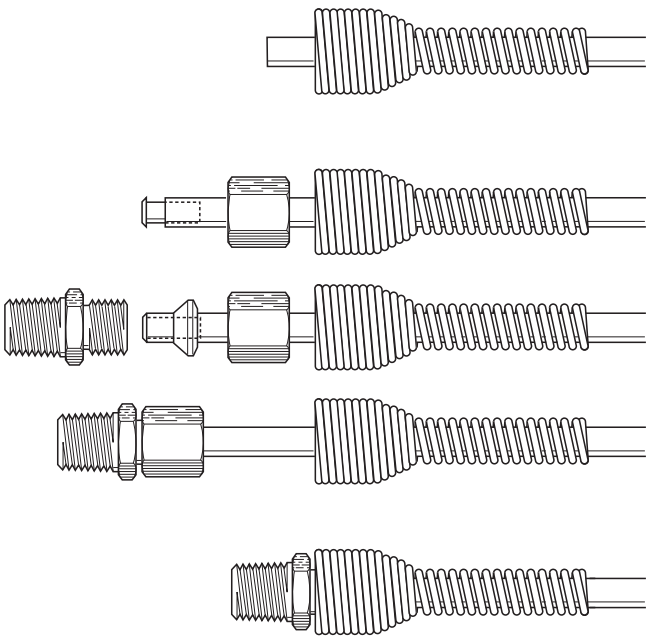


Total Length of hose	Number of Coils Needed to Obtain Required Net Extended Length +38%					
Feet	**Inches**	**3/16" I.D.**	**1/4" I.D.**	**3/8" I.D.**	**1/2" I.D.**	**3/4" I.D.**
3	36	5-1/8 coils	3-1/2 coils	2-1/4 coils	1-5/8 coils	7/8 coils
5	60	8-1/2 coils	5-3/4 coils	3-7/8 coils	2-5/8 coils	1-1/2 coils
7	84	12 coils	8-1/8 coils	5-3/8 coils	3-3/4 coils	2-1/8 coils
10	120	17-1/8 coils	11-1/2 coils	7-3/4 coils	5-3/8 coils	3 coils
12	144	20-1/2 coils	13-7/8 coils	9-1/4 coils	6-1/2 coils	3-1/2 coils
15	180	25-3/4 coils	17-3/8 coils	11-1/2 coils	8 coils	4-1/2 coils
16	192	27-3/8 coils	18-1/2 coils	12-3/8 coils	8-5/8 coils	4-3/4 coils
17	204	29-1/8 coils	19-5/8 coils	13-1/8 coils	9-1/8 coils	5 coils
18	216	30-7/8 coils	20-3/4 coils	13-7/8 coils	9-5/8 coils	5-3/8 coils
19	228	32-1/2 coils	22 coils	14-5/8 coils	10-1/4 coils	5-5/8 coils
20	240	34-1/4 coils	23-1/8 coils	15-3/8 coils	10-3/4 coils	6 coils
25	300	42-7/8 coils	28-7/8 coils	19-1/4 coils	13-3/8 coils	7-1/2 coils
30	360	51-3/8 coils	34-5/8 coils	23-1/8 coils	16-1/8 coils	8-7/8 coils
33	396	56-1/2 coils	38-1/8 coils	25-3/8 coils	17-3/4 coils	9-3/4 coils
50	600	85-5/8 coils	57-3/4 coils	38-1/2 coils	26-7/8 coils	14-7/8 coils

2. Division Into Even Numbers of Lengths

Bulk retracted lengths of FS hose are always exactly 100 feet long when shipped from the factory. Some diameter expansion of the coils may have occurred in shipment due to temperature and storage conditions. This may appear to have shortened a given 100' retracted length slightly in relation to other 100' retracted lengths in the same master carton. The shorter appearance should not be mistaken for an actual shortage in extended length. A bulk retracted length may be easily divided into smaller lengths by first measuring the tightly retracted length in inches, and dividing by 4 to determine the cut off length for 25', by 3 for 33 feet, by 8 for 12-1/2 feet, etc. Pieces should be tagged with their proper length before returning to storage.

Assembly Instructions

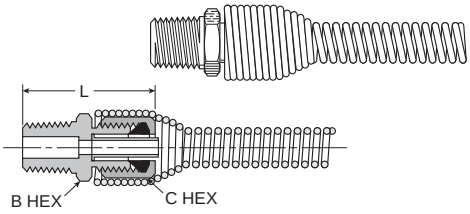


1. Cut end of hose as square as possible. Disassemble fitting and install spring guard on hose with larger coiled end of spring toward end of hose.
2. Install nut on hose, insert brass tube support.
3. Slip plastic ferrule over hose, with thin, tapered end toward end of hose.
4. Push hose into fitting body, until hose bottoms in fitting and slide nut and ferrule assembly up to engage thread and tighten hand-tight. Add 1-1/2 to 2 turns with a wrench.
5. Insert assembled fitting into spring guard. Assembly is now complete.

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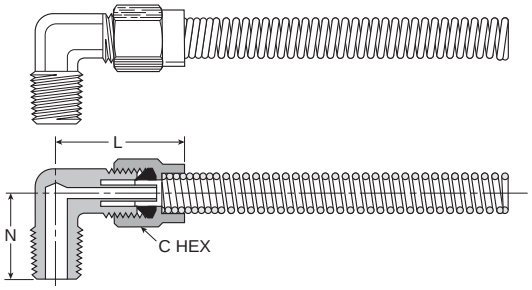
MC Male Connector



Part No.	Hose I.D.	End Type	End Size	B Hex	C Hex	L	Box Qty.
MC-03-2	3/16	MPT-Straight	1/8 MPT	9/16	1/2	1-3/8	20
MC-03-4	3/16	MPT-Straight	1/4 MPT	9/16	1/2	1-9/16	20
MC-04-2	1/4	MPT-Straight	1/8 MPT	9/16	9/16	1-3/8	20
MC-04-4	1/4	MPT-Straight	1/4 MPT	9/16	9/16	1-9/16	20
MC-06-6	3/8	MPT-Straight	3/8 MPT	11/16	13/16	1-13/16	20
MC-08-6	1/2	MPT-Straight	3/8 MPT	7/8	15/16	2-1/8	20
MC-08-8	1/2	MPT-Straight	1/2 MPT	7/8	15/16	2-1/8	20
MC-12-12*	3/4	MPT-Straight	3/4 MPT	1-1/4	1-3/8	2-1/4	10

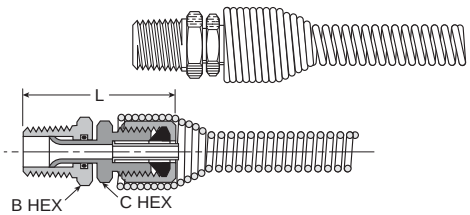
*No Spring Guard Required

ME Male Elbow



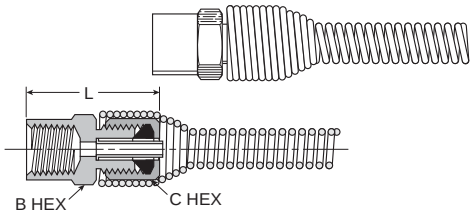
Part No.	Hose I.D.	End Type	End Size	C Hex	N	N	Box Qty.
ME-03-4	3/16	90° Male Elbow	1/4 MPT	9/16	1-1/4	15/16	20
ME-04-4	1/4	90° Male Elbow	1/4 MPT	9/16	1-13/16	15/16	20
ME-06-6	3/8	90° Male Elbow	3/8 MPT	13/16	1-9/16	1-1/8	20
ME-08-8	1/2	90° Male Elbow	1/2 MPT	15/16	1-3/4	1-3/8	20

ML Live Male Pipe Swivel



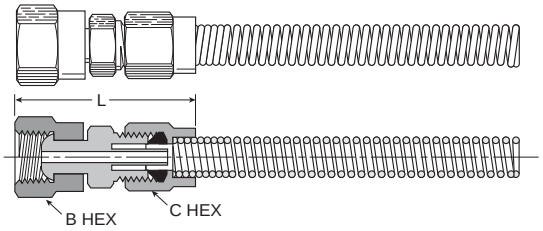
Part No.	Hose I.D.	End Type	End Size	B Hex	C Hex	L	Box Qty.
ML-03-4	3/16	MPT Live Swivel	1/4 MPT	9/16	1/2	1-11/16	20
ML-04-4	1/4	MPT Live Swivel	1/4 MPT	9/16	9/16	1-9/16	20
ML-06-6	3/8	MPT Live Swivel	3/8 MPT	3/4	13/16	1-7/8	20
ML-08-8	1/2	MPT Live Swivel	1/2 MPT	7/8	15/16	2-3/8	20

FC Female Connector



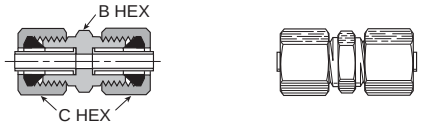
Part No.	Hose I.D.	End Type	End Size	B Hex	C Hex	L	Box Qty.
FC-04-4	1/4	Female Pipe FPT	1/4 FPT	11/16	9/16	1-9/16	10
FC-06-6	3/8	Female Pipe FPT	3/8 FPT	13/16	13/16	1-3/4	10

FL Female Pipe Swivel



Part No.	Hose I.D.	End Type	End Size	B Hex	C Hex	L	Box Qty.
FL-04-4	1/4	Female NPSM 30° Swivel	1/4 NPSM	5/8	9/16	1-3/4	20
FL-06-6	3/8	Female NPSM 30° Swivel	3/8 NPSM	3/4	9/16	2-1/8	10

UC Union Connector



Part No.	Hose I.D.	End Type	End Size	B Hex	C Hex	L	Box Qty.
UC-04-4	1/4	Union Connector	1/4 x 1/4 I.D. Hose	1/2	9/16	1-7/8	10
UC-06-6	3/8	Union Connector	3/8 x 3/8 I.D. Hose	11/16	1316	2-5/16	10

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Replacement Parts

FN Brass Nuts



Hose Part No.	I.D.	Box Qty.
FN-03	3/16	20
FN-04	1/4	20
FN-06	3/8	20
FN-08	1/2	20
FN-12	3/4	10

FR Plastic Ferrule



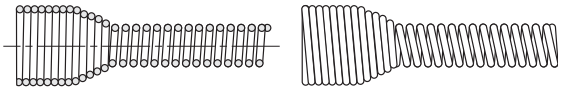
Hose Part No.	I.D.	Box Qty.
FR-03	3/16	50
FR-04	1/4	50
FR-06	3/8	30
FR-08	1/2	20
FR-12	3/4	10

TS Tube Support



Hose Part No.	I.D.	Box Qty.
TS-03	3/16	100
TS-04	1/4	100
TS-06	3/8	100
TS-08	1/2	100
TS-12	3/4	100

SG Steel Spring Guard



Hose Part No.	I.D.	Box Qty.
SG-03	3/16	20
SG-04	1/4	20
SG-06	3/8	20
SG-08	1/2	20

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Advantages
Chemical resistant, flexible, low cost, eight colors, five tube sizes and choice of reel lengths.

Construction
Flexible polyethylene thermoplastic tubing is extruded from high molecular weight resin for increased dimensional stability, uniformity and long-term strength. Its resistance to environmental stress cracking greatly exceeds that of ordinary polyethylene tubing as measured by ASTM D-1693, (10% IGEPAL).

Applications & Approvals
Polyethylene tubing is available in black as well as seven coding colors as recommended by the Instrument Society of America. Black (EB) tubing contains an ultra-violet inhibitor which is recommended for use in sunlit areas. Ingredients of natural and color tubing (except black) listed below meet FDA requirements for food contact applications. All tubing conforms to ASTM D-1248, Type I, Class A, Category 4, Grade E5.

Temperature Range
Suggested operating temperature range is -80°F to 150°F (-62°C to 66°C).

Fitting Recommendation
- Brass fittings

Nomenclature
Part numbers are constructed from symbols that identify the style and size of the fitting. Letters identify style and material. Numbers identify size in 1/16's of an inch.

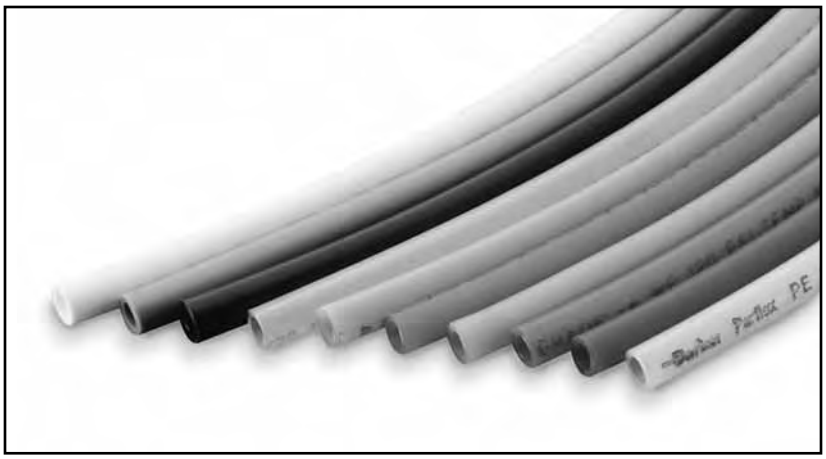
Example:

E - 6 4 - Y - 0500

- Polyethylene
- 3/8" (6/16) Tube O.D.
- 1/4" (4/16) Tube I.D.
- Color, Yellow
- Reel Footage

E Instrument Grade Tubing

Part Number	Color	O.D.	I.D.	Wall	Reel Length Feet	Working Pressure psi at 73°F	Min. Burst psi at 73°F	Min. Bend Radius Inches	Weight Per 100 Feet
E-43-0100	Natural	1/4	.170	.040	100	120	625	1	1.1
E-43-0500	Natural	1/4	.170	.040	500	120	625	1	1.1
E-43-1000	Natural	1/4	.170	.040	1000	120	625	1	1.1
EB-43-0100	Black	1/4	.170	.040	100	120	625	1	1.1
EB-43-0500	Black	1/4	.170	.040	500	120	625	1	1.1
EB-43-1000	Black	1/4	.170	.040	1000	120	625	1	1.1
E-43-R-0100	Red	1/4	.170	.040	100	120	625	1	1.1
E-43-R-0500	Red	1/4	.170	.040	500	120	625	1	1.1
E-43-B-0100	Blue	1/4	.170	.040	100	120	625	1	1.1
E-43-B-0500	Blue	1/4	.170	.040	500	120	625	1	1.1
E-43-O-0500	Orange	1/4	.170	.040	500	120	625	1	1.1
E-43-Y-0500	Yellow	1/4	.170	.040	500	120	625	1	1.1
E-43-P-0500	Purple	1/4	.170	.040	500	120	625	1	1.1
E-43-G-0500	Green	1/4	.170	.040	500	120	625	1	1.1
E-53-0500	Natural	5/16	.187	.062	500	145	800	1-1/8	2.1
EB-53-0500	Black	5/16	.187	.062	500	145	800	1-1/8	2.1
E-64-0100	Natural	3/8	.250	.062	100	125	675	1-1/4	2.5
E-64-0500	Natural	3/8	.250	.062	500	125	675	1-1/4	2.5
EB-64-0100	Black	3/8	.250	.062	100	125	675	1-1/4	2.5
EB-64-0500	Black	3/8	.250	.062	500	125	675	1-1/4	2.5
E-64-R-0500	Red	3/8	.250	.062	500	125	675	1-1/4	2.5
E-64-B-0500	Blue	3/8	.250	.062	500	125	675	1-1/4	2.5
E-64-O-0500	Orange	3/8	.250	.062	500	125	675	1-1/4	2.5
E-64-Y-0500	Yellow	3/8	.250	.062	500	125	675	1-1/4	2.5
E-64-P-0500	Purple	3/8	.250	.062	500	125	675	1-1/4	2.5
E-64-G-0500	Green	3/8	.250	.062	500	125	675	1-1/4	2.5
E-86-0100	Natural	1/2	.375	.062	100	90	425	2-1/2	3.6
EB-86-0100	Black	1/2	.375	.062	100	90	425	2-1/2	3.6
E-108-0100	Natural	5/8	.500	.062	100	70	325	4	4.6
EB-108-0100	Black	5/8	.500	.062	Coil	70	325	4	4.6



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FRPE Flame Resistant Tubing

Part Number	Color	O.D.	I.D.	Wall	Reel Length Feet	Working Pressure psi at 73°F	Min. Burst psi at 73°F	Min. Bend Radius Inches	Weight Per 100 Feet
FRPE2.5-0500	Black	5/32	.096	.030	500	225	900	1/2	.56
FRPE4-0250	Black	1/4	.170	.040	250	160	650	3/4	1.24
FRPE4-0500	Black	1/4	.170	.040	500	160	650	3/4	1.24
FRPE4-1000	Black	1/4	.170	.040	1000	160	650	3/4	1.24
FRPE6-0250	Black	3/8	.250	.062	250	195	780	1-1/2	2.90
FRPE6-0500	Black	3/8	.250	.062	500	195	780	1-1/2	2.90
FRPE8-0250	Black	1/2	.375	.062	250	135	540	1-3/4	4.05

Construction & Approvals

Flame resistant polyethylene is manufactured from a distinctively formulated compound which meets the UL94 V-2 flame classification. It also meets the flame spread, fuel contribution and smoke density requirements of the ASTM E84-81a tunnel test.

Applications

Parker series FRPE tubing is the preferred product for pneumatic control applications in the heating - ventilating - air conditioning - energy conservation industry. It is also suitable for use in petrochemical plants, petroleum refineries, pulp and paper mills, mines, steel mills and other industries where protection against intermittent flame and hot sparks is necessary.

Temperature Range

Suggested operating temperature range is -85°F to 150°F (-65°C to +66°C).

Nomenclature

Order by tubing part number and name.

Example:

FR PE 4 - 0500

Flame Resistant

Polyethylene

1/4" (4/16) Tube O. D.

Reel Footage

N

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Advantages

Flexible nylon tubing is carefully made from high-grade, abrasion-resistant, heat-and light-stabilized nylon. Resistance to stress-cracking greatly exceeds that of ordinary nylon tubing. Extremely low level water absorption.

Chemical-resistant nylon tubing has the additional benefits of better flexibility, lighter weight and resistance to flexural fatigue.

Colors

Available in natural (NN) and black (NB). Black tubing is recommended for use outdoors and in sunlit areas.

Temperature Range

Operating temperatures, depending upon conditions, are -65°F to 200°F (-54°C to 93°C) continuous.

Fitting Recommendations

• Brass fittings

Nomenclature

Order by tubing part number and name.

Example:

N N - 2 - 016

Nylon

Color Natural

1/8" (2/16) Tube O. D.

Wall Thickness (in thousandths of an inch)

N Flexible Tubing

Nylon Part No.	Color	Nom. Tube O.D.	Nom. Tube I.D.	Average Wall Thick.	*Min. Burst Pressure at 73°F psi	Min. Bend Radius Inches	Std. Reel Length Feet
NN-2-016	Natural	1/8	.093	.016	1000	1/4	250
NB-2-016	Black	1/8	.093	.016	1000	1/4	250
NN-2-031	Natural	1/8	.064	.031	2000	1/4	250
NB-2-031	Black	1/8	.064	.031	2000	1/4	250
NN-2.5-025	Natural	5/32	.106	.025	1200	1/2	250
NB-2.5-025	Black	5/32	.106	.025	1200	1/2	250
NN-3-025	Natural	3/16	.138	.025	1000	5/8	250
NB-3-025	Black	3/16	.138	.025	1000	5/8	250
NN-3-046	Natural	3/16	.096	.046	2000	7/16	250
NB-3-046	Black	3/16	.096	.046	2000	7/16	250
NN-4-035	Natural	1/4	.180	.035	1000	7/8	250
NB-4-035	Black	1/4	.180	.035	1000	7/8	250
NN-4-040	Natural	1/4	.170	.040	1250	7/8	250
NB-4-040	Black	1/4	.170	.040	1250	7/8	250
NN-4-062	Natural	1/4	.127	.062	2000	1/2	250
NB-4-062	Black	1/4	.127	.062	2000	1/2	250
NN-5-040	Natural	5/16	.233	.040	1250	1-1/8	250
NB-5-040	Black	5/16	.233	.049	1250	1-1/8	250
NN-6-050	Natural	3/8	.275	.050	1250	1-1/8	250
NB-6-050	Black	3/8	.275	.050	1250	1-1/8	250
NN-6-093	Natural	3/8	.190	.093	2000	3/4	250
NB-6-093	Black	3/8	.190	.093	2000	3/4	250
NN-8-062	Natural	1/2	.375	.062	1000	1-1/4	250
NB-8-062	Black	1/2	.375	.062	1000	1-1/4	250
NN-8-124	Natural	1/2	.253	.124	2000	1	250
NB-8-124	Black	1/2	.253	.124	2000	1	250

*Suggested working pressure is 1/4 of burst pressure.

N

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Advantages
Series NR semi-rigid nylon tubing offers better chemical resistance than series N, good resistance to high ambient temperature and low moisture absorption. NR has a high tensile strength which will give excellent coupling retention in high pressure, temperature and vibration environments.

Construction
Parker series NR tubing is manufactured from a semi-rigid nylon II material. The tubing does not contain plasticizers.

Applications & Approvals
NR tubing is specified for machine tool lubricating systems, marine control systems, process lines for chemicals and oils and other applications requiring a high quality nylon tube.

Temperature Range
The recommended operating temperature range for service at rated pressures with compatible fluids is -60°F to 200°F (-51°C to 93°C).

Fitting Recommendations
• Brass fittings

Nomenclature
Order by tubing part number and name.

Example:

N B R 2 016

Nylon
Color, Black
Rigid
1/8" (2/16) Tube O.D.
Wall Thickness (in thousandths of an inch)

NR Semi-rigid High Strength Tubing

Nylon Part No.	Color	Nom. Tube O.D.	Nom. Tube I.D.	Average Wall Thick.	*Min. Burst Pressure at 73°F psi	Min. Bend Radius Inches	Std. Reel Length Feet
NNR-2-017	Natural	1/8	.091	.017	1700	1/2	500
NBR-2-017	Black	1/8	.091	.017	1700	1/2	500
NNR-2-026	Natural	1/8	.073	.026	2500	3/8	500
NBR-2-026	Black	1/8	.073	.026	2500	3/8	500
NNR-3-024	Natural	3/16	.140	.024	1700	3/4	500
NBR-3-024	Black	3/16	.140	.024	1700	3/4	500
NNR-3-039	Natural	3/16	.110	.039	2500	5/8	500
NBR-3-039	Black	3/16	.110	.039	2500	5/8	500
NNR-4-035	Natural	1/4	.180	.035	1700	1	250
NBR-4-035	Black	1/4	.180	.035	1700	1	250
NNR-4-050	Natural	1/4	.150	.050	2500	7/8	250
NBR-4-050	Black	1/4	.150	.050	2500	7/8	250
NNR-5-040	Natural	5/16	.233	.040	1700	1-1/2	250
NBR-5-040	Black	5/16	.233	.040	1700	1-1/2	250
NNR-6-048	Natural	3/8	.279	.048	1700	1-3/4	250
NBR-6-048	Black	3/8	.279	.048	1700	1-3/4	250
NNR-6-075	Natural	3/8	.225	.075	2500	1-1/2	250
NBR-6-075	Black	3/8	.225	.075	2500	1-1/2	250
NNR-8-062	Natural	1/2	.376	.062	1500	2-3/8	250
NBR-8-062	Black	1/2	.376	.062	1500	2-3/8	250
NNR-8-075	Natural	1/2	.350	.075	2200	2-1/2	250
NBR-8-075	Black	1/2	.350	.075	2200	2-1/2	250

*Suggested working pressure is 1/4 of burst pressure.

PTC Plastic Tube Cutter

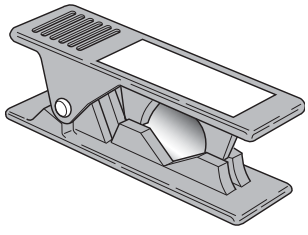
Part No. PTC-001

An easy to handle razor/edged tube cutter, closes automatically, assuring clean and square cuts.

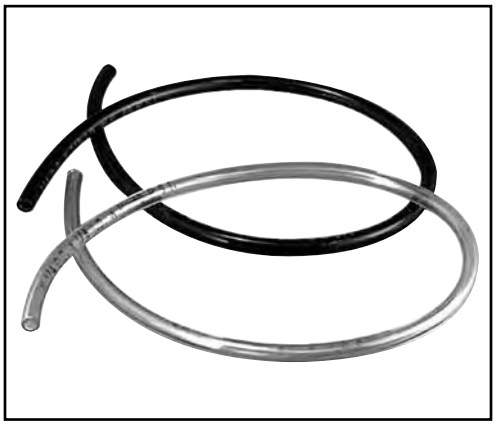
May be used with polyethylene, polypropylene, nylon and other plastic tubing.

How To Use

Insert plastic tube to desired length, allow tube cutter to close, then apply pressure until tube snaps off.



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Advantages

Polyurethane tubing is a high quality, precision-made tubing used in a wide range of demanding and critical applications.

Polyether based, polyurethane tubing occupies a unique position among polymers, sharing the best properties of both rubber and plastic. Urethane exhibits the elongation and recovery characteristics of rubber and the chemical resistance associated with plastics. The tubing is tough, strong, kink-resistant and abrasion resistant, yet it's flexible and easy to assemble onto designated fittings.

- Tough
- Flexible
- Broad Temperature Range
- Eight Colors
- Abrasion Resistant
- Chemical Resistant

Applications & Approvals

Polyurethane tubing is used for a wide variety of applications. Typical usage includes air tools, robotics, pneumatic logic and actuation systems, analytical instrumentation, vacuum equipment, pressure measurement apparatus, semi-conductor equipment manufacturers and a variety of medical and laboratory applications.

Temperature Range

Suggested operating temperatures, depending upon conditions are 0°F to 200°F (-18°C to 93°C).

Fitting Recommendations

- Thermoplastic fittings
- Brass fittings

Nomenclature

Order by tubing part number and name.

Example:

U - 2 1 - BLK - 0250

- Polyurethane
- 1/8" (2/16) Tube O.D.
- 1/6" (1/16) Tube I.D.
- Color - Black
- Reel Length in Feet

U Polyether Base Tubing

Part No.*	Nom. Tube O.D.	Nom. Tube I.D.	Wall Thick.	Working** Pressure (PSI)	Burst Pressure (PSI)	Reel Length Feet
U-21-0500	1/8	1/16	1/32	125	375	500
U-21-0250						250
U-42-0500	1/4	1/8	1/16	125	375	500
U-42-0250						250
U-64-0250	3/8	1/4	1/16	125	375	250
U-64-0100						100 (coil)
U-86-0250	1/2	3/8	1/16	85	255	250
U-86-0100						100 (coil)

* Colors: Clear-Blank, Black-BLK, Green-GRN, Red-RED, Yellow-YEL, Blue-BLU, Orange-ORG, Gray-GRA

** Based on a full 4:1 safety factor.

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Safety Guide For Selecting And Using Pneumatic Division Products And Related Accessories

⚠ WARNING:

FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF PNEUMATIC DIVISION PRODUCTS, ASSEMBLIES OR RELATED ITEMS ("PRODUCTS") CAN CAUSE DEATH, PERSONAL INJURY, AND PROPERTY DAMAGE. POSSIBLE CONSEQUENCES OF FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF THESE PRODUCTS INCLUDE BUT ARE NOT LIMITED TO:

- Unintended or mistimed cycling or motion of machine members or failure to cycle
- Work pieces or component parts being thrown off at high speeds.
- Failure of a device to function properly for example, failure to clamp or unclamp an associated item or device.
- Explosion
- Suddenly moving or falling objects.
- Release of toxic or otherwise injurious liquids or gasses.

Before selecting or using any of these Products, it is important that you read and follow the instructions below.

1. GENERAL INSTRUCTIONS

1.1. Scope: This safety guide is designed to cover general guidelines on the installation, use, and maintenance of Pneumatic Division Valves, FRLs (Filters, Pressure Regulators, and Lubricators), Vacuum products and related accessory components.

1.2. Fail-Safe: Valves, FRLs, Vacuum products and their related components can and do fail without warning for many reasons. Design all systems and equipment in a fail-safe mode, so that failure of associated valves, FRLs or Vacuum products will not endanger persons or property.

1.3 Relevant International Standards: For a good guide to the application of a broad spectrum of pneumatic uid power devices see: ISO 4414:1998, Pneumatic Fluid Power – General Rules Relating to Systems. See www.iso.org for ordering information.

1.4. Distribution: Provide a copy of this safety guide to each person that is responsible for selection, installation, or use of Valves, FRLs or Vacuum products. Do not select, or use Parker valves, FRLs or vacuum products without thoroughly reading and understanding this safety guide as well as the speci c Parker publications for the products considered or selected.

1.5. User Responsibility: Due to the wide variety of operating conditions and applications for valves, FRLs, and vacuum products Parker and its distributors do not represent or warrant that any particular valve, FRL or vacuum product is suitable for any speci c end use system. This safety guide does not analyze all technical parameters that must be considered in selecting a product. The user, through its own analysis and testing, is solely responsible for:

- Making the nal selection of the appropriate valve, FRL, Vacuum component, or accessory.
- Assuring that all user's performance, endurance, maintenance, safety, and warning requirements are met and that the application presents no health or safety hazards.
- Complying with all existing warning labels and / or providing all appropriate health and safety warnings on the equipment on which the valves, FRLs or Vacuum products are used; and,
- Assuring compliance with all applicable government and industry standards.

1.6. Safety Devices: Safety devices should not be removed, or defeated.

1.7. Warning Labels: Warning labels should not be removed, painted over or otherwise obscured.

1.8. Additional Questions: Call the appropriate Parker technical service department if you have any questions or require any additional information. See the Parker publication for the product being considered or used, or call 1-800-CPARKER, or go to www.parker.com, for telephone numbers of the appropriate technical service department.

2. PRODUCT SELECTION INSTRUCTIONS

2.1. Flow Rate: The ow rate requirements of a system are frequently the primary consideration when designing any pneumatic system. System components need to be able to provide adequate ow and pressure for the desired application.

2.2. Pressure Rating: Never exceed the rated pressure of a product. Consult product labeling, Pneumatic Division catalogs or the instruction sheets supplied for maximum pressure ratings.

2.3. Temperature Rating: Never exceed the temperature rating of a product. Excessive heat can shorten the life expectancy of a product and result in complete product failure.

2.4. Environment: Many environmental conditions can affect the integrity and suitability of a product for a given application. Pneumatic Division products are designed for use in general purpose industrial applications. If these products are to be used in unusual circumstances such as direct sunlight and/or corrosive or caustic environments, such use can shorten the useful life and lead to premature failure of a product.

2.5. Lubrication and Compressor Carryover: Some modern synthetic oils can and will attack nitrile seals. If there is any possibility of synthetic oils or greases migrating into the pneumatic components check for compatibility with the seal materials used. Consult the factory or product literature for materials of construction.

2.6. Polycarbonate Bowls and Sight Glasses: To avoid potential polycarbonate bowl failures:

- Do not locate polycarbonate bowls or sight glasses in areas where they could be subject to direct sunlight, impact blow, or temperatures outside of the rated range.
- Do not expose or clean polycarbonate bowls with detergents, chlorinated hydro-carbons, keytones, esters or certain alcohols.
- Do not use polycarbonate bowls or sight glasses in air systems where compressors are lubricated with re resistant uids such as phosphate ester and di-ester lubricants.

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2.7. Chemical Compatibility: For more information on plastic component chemical compatibility see Pneumatic Division technical bulletins Tec-3, Tec-4, and Tec-5

2.8. Product Rupture: Product rupture can cause death, serious personal injury, and property damage.
- Do not connect pressure regulators or other Pneumatic Division products to bottled gas cylinders.
- Do not exceed the maximum primary pressure rating of any pressure regulator or any system component.
- Consult product labeling or product literature for pressure rating limitations.

3. PRODUCT ASSEMBLY AND INSTALLATION INSTRUCTIONS

3.1. Component Inspection: Prior to assembly or installation a careful examination of the valves, FRLs or vacuum products must be performed. All components must be checked for correct style, size, and catalog number. DO NOT use any component that displays any signs of nonconformance.

3.2. Installation Instructions: Parker published Installation Instructions must be followed for installation of Parker valves, FRLs and vacuum components. These instructions are provided with every Parker valve or FRL sold, or by calling 1-800-CPARKER, or at www.parker.com.

3.3. Air Supply: The air supply or control medium supplied to Valves, FRLs and Vacuum components must be moisture-free if ambient temperature can drop below freezing

4. VALVE AND FRL MAINTENANCE AND REPLACEMENT INSTRUCTIONS

4.1. Maintenance: Even with proper selection and installation, valve, FRL and vacuum products service life may be signi cantly reduced without a continuing maintenance program. The severity of the application, risk potential from a component failure, and experience with any known failures in the application or in similar applications should determine the frequency of inspections and the servicing or replacement of Pneumatic Division products so that products are replaced before any failure occurs. A maintenance program must be established and followed by the user and, at minimum, must include instructions 4.2 through 4.10.

4.2. Installation and Service Instructions: Before attempting to service or replace any worn or damaged parts consult the appropriate Service Bulletin for the valve or FRL in question for the appropriate practices to service the unit in question. These Service and Installation Instructions are provided with every Parker valve and FRL sold, or are available by calling 1-800-CPARKER, or by accessing the Parker web site at www.parker.com.

4.3. Lockout / Tagout Procedures: Be sure to follow all required lockout and tagout procedures when servicing equipment. For more information see: OSHA Standard – 29 CFR, Part 1910.147, Appendix A, The Control of Hazardous Energy – (Lockout / Tagout)

4.4. Visual Inspection: Any of the following conditions requires immediate system shut down and replacement of worn or damaged components:
- Air leakage: Look and listen to see if there are any signs of visual damage to any of the components in the system. Leakage is an indication of worn or damaged components.
- Damaged or degraded components: Look to see if there are any visible signs of wear or component degradation.
- Kinked, crushed, or damaged hoses. Kinked hoses can result in restricted air ow and lead to unpredictable system behavior.
- Any observed improper system or component function: Immediately shut down the system and correct malfunction.
- Excessive dirt build-up: Dirt and clutter can mask potentially hazardous situations.

Caution: Leak detection solutions should be rinsed off after use.

4.5. Routine Maintenance Issues:
- Remove excessive dirt, grime and clutter from work areas.
- Make sure all required guards and shields are in place.

4.6. Functional Test: Before initiating automatic operation, operate the system manually to make sure all required functions operate properly and safely.

4.7. Service or Replacement Intervals: It is the user's responsibility to establish appropriate service intervals. Valves, FRLs and vacuum products contain components that age, harden, wear, and otherwise deteriorate over time. Environmental conditions can signi cantly accelerate this process. Valves, FRLs and vacuum components need to be serviced or replaced on routine intervals. Service intervals need to be established based on:
- Previous performance experiences.
- Government and / or industrial standards.
- When failures could result in unacceptable down time, equipment damage or personal injury risk.

4.8. Servicing or Replacing of any Worn or Damaged Parts: To avoid unpredictable system behavior that can cause death, personal injury and property damage:
- Follow all government, state and local safety and servicing practices prior to service including but not limited to all OSHA Lockout Tagout procedures (OSHA Standard – 29 CFR, Part 1910.147, Appendix A, The Control of Hazardous Energy – Lockout / Tagout).
- Disconnect electrical supply (when necessary) before installation, servicing, or conversion.
- Disconnect air supply and depressurize all air lines connected to system and Pneumatic Division products before installation, service, or conversion.
- Installation, servicing, and / or conversion of these products must be performed by knowledgeable personnel who understand how pneumatic products are to be applied.
- After installation, servicing, or conversions air and electrical supplies (when necessary) should be connected and the product tested for proper function and leakage. If audible leakage is present, or if the product does not operate properly, do not put product or system into use.
- Warnings and speci cations on the product should not be covered or painted over. If masking is not possible, contact your local representative for replacement labels.

4.9. Putting Serviced System Back into Operation: Follow the guidelines above and all relevant Installation and Maintenance Instructions supplied with the valve FRL or vacuum component to insure proper function of the system.

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Offer of Sale

The items described in this document and other documents or descriptions provided by Parker Hannifin Corporation, its subsidiaries and its authorized distributors, are hereby offered for sale at prices to be established by Parker Hannifin Corporation, its subsidiaries and its authorized distributors. This offer and its acceptance by any customer ("Buyer") shall be governed by all of the following Terms and Conditions. Buyer's order for any such item, when communicated to Parker Hannifin Corporation, its subsidiaries or an authorized distributor ("Seller") verbally or in writing, shall constitute acceptance of this offer.

1. Terms and Conditions of Sale: All descriptions, quotations, proposals, offers, acknowledgments, acceptances and sales of Seller's products are subject to and shall be governed exclusively by the terms and conditions stated herein. Buyer's acceptance of any offer to sell is limited to these terms and conditions. Any terms or conditions in addition to, or inconsistent with those stated herein, proposed by Buyer in any acceptance of an offer by Seller, are hereby objected to. No such additional, different or inconsistent terms and conditions shall become part of the contract between Buyer and Seller unless expressly accepted in writing by Seller. Seller's acceptance of any offer to purchase by Buyer is expressly conditional upon Buyer's assent to all the terms and conditions stated herein, including any terms in addition to, or inconsistent with those contained in Buyer's offer. Acceptance of Seller's products shall in all events constitute such assent.

2. Payment: Payment shall be made by Buyer net 30 days from the date of delivery of the items purchased hereunder. Amounts not timely paid shall bear interest at the maximum rate permitted by law for each month or portion thereof that the Buyer is late in making payment. Any claims by Buyer for omissions or shortages in a shipment shall be waived unless Seller receives notice thereof within 30 days after Buyer's receipt of the shipment.

3. Delivery: Unless otherwise provided on the face hereof, delivery shall be made F.O.B. Seller's plant. Regardless of the method of delivery, however, risk of loss shall pass to Buyer upon Seller's delivery to a carrier. Any delivery dates shown are approximate only and Seller shall have no liability for any delays in delivery.

4. Warranty: Seller warrants that the items sold hereunder shall be free from defects in material or workmanship for a period of 18 months from date of shipment from Parker Hanni n Corporation. THIS WARRANTY COMPRISES THE SOLE AND ENTIRE WARRANTY PERTAINING TO ITEMS PROVIDED HEREUNDER. SELLER MAKES NO OTHER WARRANTY, GUARANTEE, OR REPRESENTATION OF ANY KIND WHATSOEVER. ALL OTHER WARRANTIES, INCLUDING BUT NOT LIMITED TO, MERCHANTABILITY AND FITNESS FOR PURPOSE, WHETHER EXPRESS, IMPLIED, OR ARISING BY OPERATION OF LAW, TRADE USAGE, OR COURSE OF DEALING ARE HEREBY DISCLAIMED.

NOTWITHSTANDING THE FOREGOING, THERE ARE NO WARRANTIES WHATSOEVER ON ITEMS BUILT OR ACQUIRED WHOLLY OR PARTIALLY, TO BUYER'S DESIGN OR SPECIFICATIONS.

5. Limitation of Remedy: SELLER'S LIABILITY ARISING FROM OR IN ANY WAY CONNECTED WITH THE ITEMS SOLD OR THIS CONTRACT SHALL BE LIMITED EXCLUSIVELY TO REPAIR OR REPLACEMENT OF THE ITEMS SOLD OR REFUND OF THE PURCHASE PRICE PAID BY BUYER, AT SELLER'S SOLE OPTION. IN NO EVENT SHALL SELLER BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES OF ANY KIND OR NATURE WHATSOEVER, INCLUDING BUT NOT LIMITED TO LOST PROFITS ARISING FROM OR IN ANY WAY CONNECTED WITH THIS AGREEMENT OR ITEMS SOLD HEREUNDER, WHETHER ALLEGED TO ARISE FROM BREACH OF CONTRACT, EXPRESS OR IMPLIED WARRANTY, OR IN TORT, INCLUDING WITHOUT LIMITATION, NEGLIGENCE, FAILURE TO WARN OR STRICT LIABILITY.

6. Changes, Reschedules and Cancellations: Buyer may request to modify the designs or speci cations for the items sold hereunder as well as the quantities and delivery dates thereof, or may request to cancel all or part of this order, however, no such requested modi cation or cancellation shall become part of the contract between Buyer and Seller unless accepted by Seller in a written amendment to this Agreement. Acceptance of any such requested modi cation or cancellation shall be at Seller's discretion, and shall be upon such terms and conditions as Seller may require.

7. Special Tooling: A tooling charge may be imposed for any special tooling, including without limitations, dies, xtures, molds and patterns, acquired to manufacture items sold pursuant to this contract. Such special tooling shall be and remain Seller's property notwithstanding payment of any charges by Buyer. In no event will Buyer acquire any interest in apparatus belonging to Seller which is utilized in the manufacture of the items sold hereunder, even if such apparatus has been specially converted or adapted for such manufacture and notwithstanding any charges paid by Buyer. Unless otherwise agreed, Seller shall have the right to alter, discard or otherwise dispose of any special tooling or other property in its sole discretion at any time.

8. Buyer's Property: Any designs, tools, patterns, materials, drawings, con dential information or equipment furnished by Buyer, or any other items which become Buyer's property, may be considered obsolete and may be destroyed by Seller after two (2) consecutive years have elapsed without Buyer placing an order for the items which are manufactured using such property. Seller shall not be responsible for any loss or damage to such property while it is in Seller's possession or control.

9. Taxes: Unless otherwise indicated on the face hereof, all prices and charges are exclusive of excise, sales, use, property, occupational or like taxes which may be imposed by any taxing authority upon the manufacture, sale or delivery of the items sold hereunder. If any such taxes must be paid by Seller or if Seller is liable for the collection of such tax, the amount thereof shall be in addition to the amounts for the items sold. Buyer agrees to pay all such taxes or to reimburse Seller therefore upon receipt of its invoice. If Buyer claims exemption from any sales, use or other tax imposed by any taxing authority, Buyer shall save Seller harmless from and against any such tax, together with any interest or penalties thereon which may be assessed if the items are held to be taxable.

10. Indemnity For Infringement of Intellectual Property Rights: Seller shall have no liability for infringement of any patents, trademarks, copyrights, trade dress, trade secrets or similar rights except as provided in this Part 10. Seller will defend and indemnify Buyer against allegations of infringement of U.S. patents, U.S. trademarks, copyrights, trade dress and trade secrets (hereinafter "Intellectual Property Rights"). Seller will defend at its expense and will pay the cost of any settlement or damages awarded in an action brought against Buyer based on an allegation that an item sold pursuant to this contract infringes the Intellectual Property Rights of a third party. Seller's obligation to defend and indemnify Buyer is contingent on Buyer notifying Seller within ten (10) days after Buyer becomes aware of such allegations of infringement, and Seller having sole control over the defense of any allegations or actions including all negotiations for settlement or compromise. If an item sold hereunder is subject to a claim that it infringes the Intellectual Property Rights of a third party, Seller may, at its sole expense and option, procure for Buyer the right to continue using said item, replace or modify said item so as to make it noninfringing, or offer to accept return of said item and return the purchase price less a reasonable allowance for depreciation. Notwithstanding the foregoing, Seller shall have no liability for claims of infringement based on information provided by Buyer, or directed to items delivered hereunder for which the designs are speci ed in whole or part by Buyer, or infringements resulting from the modi cation, combination or use in a system of any item sold hereunder. The foregoing provisions of this Part 10 shall constitute Seller's sole and exclusive liability and Buyer's sole and exclusive remedy for infringement of Intellectual Property Rights.

If a claim is based on information provided by Buyer or if the design for an item delivered hereunder is speci ed in whole or in part by Buyer, Buyer shall defend and indemnify Seller for all costs, expenses or judgements resulting from any claim that such item infringes any patent, trademark, copyright, trade dress, trade secret or any similar right.

11. Force Majeure: Seller does not assume the risk of and shall not be liable for delay or failure to perform any of Seller's obligations by reason of circumstances beyond the reasonable control of Seller (hereinafter "Events of Force Majeure"). Events of Force Majeure shall include without limitation, accidents, acts of God, strikes or labor disputes, acts, laws, rules or regulations of any government or government agency, res, oods, delays or failures in delivery of carriers or suppliers, shortages of materials and any other cause beyond Seller's control.

12. Entire Agreement/Governing Law: The terms and conditions set forth herein, together with any amendments, modi cations and any different terms or conditions expressly accepted by Seller in writing, shall constitute the entire Agreement concerning the items sold, and there are no oral or other representations or agreements which pertain thereto. This Agreement shall be governed in all respects by the law of the State of Ohio. No actions arising out of sale of the items sold hereunder or this Agreement may be brought by either party more than two (2) years after the cause of action accrues.

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