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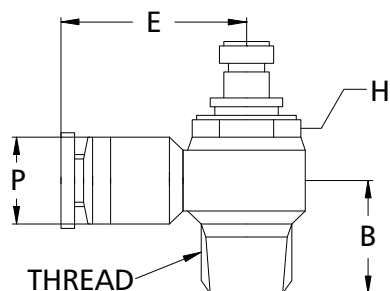
Flow Controls



Engineered for life

Flow Control Valves (Push To Connect) Specifications

Dimensions



Features

- Complete rotation of the valve body around the bolt allows for optimum positioning of tubing
- Compact size provides space saving installations
- Special adjustment needle design allows large adjustment range with high precision
- Adjustment needles and banjo bodies are retained, preventing accidental loss of needle or lock nut

Tube	Thread	Part No.	B	E	H	P
1/8	10-32	FCV18S1032K	0.44	0.80	5/16	0.41
1/8	1/8 NPT	FCV18N18K	0.59	0.88	7/16	0.41
5/32	10-32	FCV532S1032K	0.44	0.80	5/16	0.41
5/32	1/8 NPT	FCV532N18K	0.59	0.88	7/16	0.41
3/16	1/8 NPT	FCV316N18K	0.60	0.99	0.39	0.44
1/4	10-32	FCV14S1032K	0.47	0.92	5/16	0.52
1/4	1/8 NPT	FCV14N18K	0.82	0.94	7/16	0.52
1/4	1/4 NPT	FCV14N14K	0.73	1.03	9/16	0.52
1/4	3/8 NPT	FCV14N38K	0.85	1.10	0.74	0.51
5/16	1/8 NPT	FCV516N18K	0.59	1.04	0.39	0.58
5/16	1/4 NPT	FCV516N14K	0.71	1.13	0.56	0.58
5/16	3/8 NPT	FCV516N38K	0.85	1.19	3/4	0.58
3/8	1/4 NPT	FCV38N14K	0.81	1.26	9/16	0.71
3/8	3/8 NPT	FCV38N38K	0.94	1.26	3/4	0.72
3/8	1/2 NPT	FCV38N12K	0.99	1.40	0.94	0.71
1/2	3/8 NPT	FCV12N38K	0.94	1.35	3/4	0.86
1/2	1/2 NPT	FCV12N12K	0.82	1.12	3/4	0.86

NOTE: All dimensions in inches

Tube	Thread	Part No.	B	E	H	P
4	M5	FCV4M5K	10,5	20,7	8	10,5
4	M6	FCV4M6K	12,0	20,6	8	10,5
4	G 1/8	FCV4G18K	14,9	22,2	10	10,5
4	G 1/4	FCV4G14K	16,3	27,3	14	10,5
6	M5	FCV6M5K	12,5	23,1	8	13,2
6	M6	FCV6M6K	12,8	23,8	8	13,2
6	G 1/8	FCV6G18K	14,8	23,6	10	13,2
6	G 1/4	FCV6G14K	16,6	25,5	14	13,2
6	G 3/8	FCV6G38K	19,5	27,8	19	13,2
8	G 1/8	FCV8G18K	15,2	26,5	10	14,8
8	G 1/4	FCV8G14K	16,4	27,8	14	14,8
8	G 3/8	FCV8G38K	20,1	31,4	19	14,8
8	G 1/2	FCV8G12K	22,8	30,3	24	14,8
10	G 1/4	FCV10G14K	19,5	34,0	14	18,4
10	G 3/8	FCV10G38K	21,2	33,4	19	18,4
10	G 1/2	FCV10G12K	25,0	35,2	24	18,4
12	G 1/4	FCV12G14K	21,3	34,2	14	20,3
12	G 3/8	FCV12G38K	22,4	34,2	19	20,3
12	G 1/2	FCV12G12K	26,3	37,2	24	20,3

NOTE: All dimensions in millimeters

Installation of Pipe Fittings

Tighten fitting by hand, then turn it 2 to 3 turns with a wrench until it reaches the desire torque listed. If the fitting is not pre-coated with sealant, or is used and the sealant is not in good condition, apply Teflon sealant tape to the threads.

Recommendation of Torque for Tightening Fittings		
Fitting Thread Size	Torque, lb-ft	Torque, kgf/cm
10-32, M5 –M6	1.0 -1.5	14 –21
1/8 NPT, G 1/8	5 -6.5	70 -90
1/4 NPT, G 1/4	8.5 -10	120 -140
3/8 NPT, G 3/8	16 -17.5	220 -240
1/2 NPT, G 1/2	20 -21.5	280 -300

Flow Control Valves (Push To Connect) Specifications

Installation of Tubing into Fitting

1. Slowly push clean and perpendicularly cut tubing into the fitting until it comes to a stop.
2. Pull the tubing back gently until the Grip Ring or Collet of the fitting grips onto the tubing and has a good seal.
3. Use Polyethylene, Polypropylene, Polyurethane, or Nylon Tubing designed for instant fittings.

Removal of Tubing from Fitting

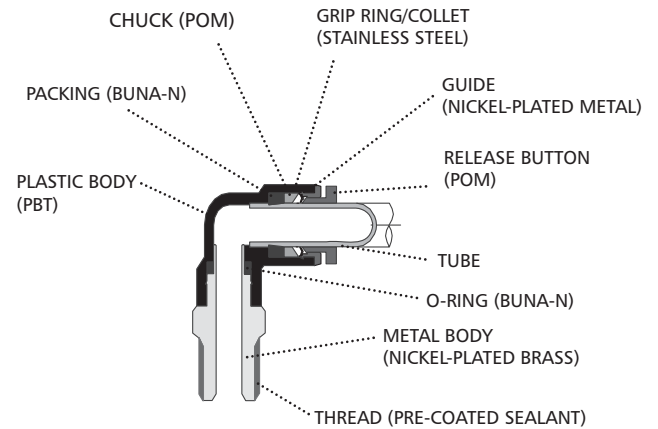
1. Push in evenly on the long oval sides of the Release Button.
2. Pull out the tube while keeping the Release Button depressed.
3. To reuse the tubing; cut off the lodged portion of the previously used tubing evenly and perpendicularly.

Recommended Tubing Material, Size and Hardness Requirements

Tubing Material	Specified Size	Hardness (Durometer)
Polyurethane	+/- 0.006" (+/-0,15 mm)	Shore A 85 or higher
Polyethylene	+/- 0.004" (+/-0,1 mm)	Shore D 44 or higher
Polypropylene	+/- 0.004" (+/-0,1 mm)	Shore D 44 or higher
Nylon	+/- 0.004" (+/-0,1 mm)	Shore D 44 or higher

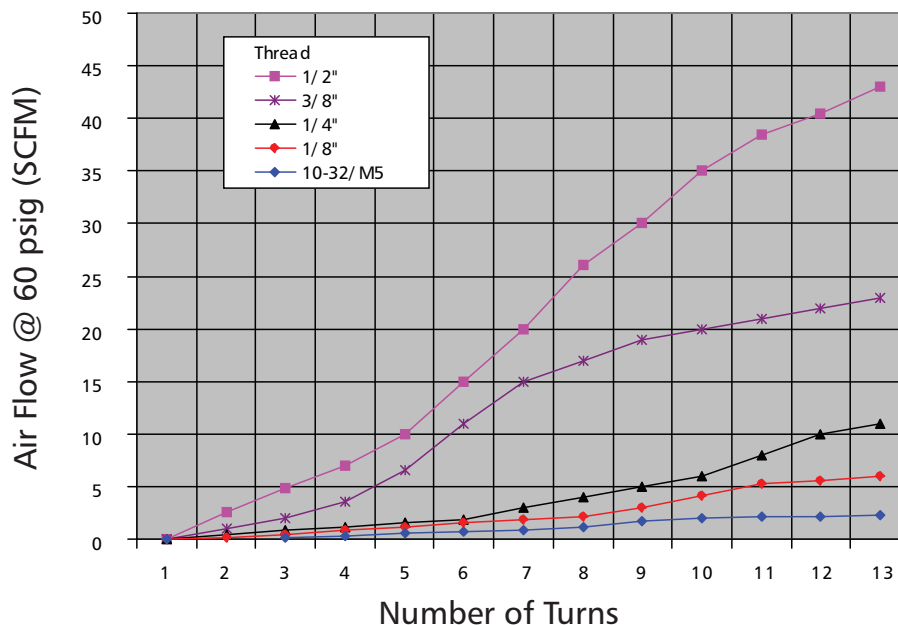
Specifications, Material of Construction and Schematic of Typical Construction

	Composite Fittings	
Operating Pressure Range	0-150 PSI (0-990 BAR)	0-180 PSI (0-1200 BAR)
Vacuum	0-29.5 in Hg (750 mm Hg)	
Operating Temperature	32-140°F (0-60°C)	
Recommended Tubing Material	Polyurethane, Nylon, Polyethylene, Polypropylene	
Metal Body	Brass, Nickel Plated	
Plastic Body	PBT (Polybutylene terephthalate)	
Release Button	POM (Poly oxy methylene copolymer)	
Grip Ring or Collet	300 series Stainless Steel	
O-Ring	NBR (Buna-N)	
Thread Sealant	Teflon	



Schematic of Typical Composite Fitting Construction

Air Flow Characteristics



Special Conditions and Limited Warranty

Determination of the suitability of any information or product for the application contemplated by any user or the manner of that use is the sole responsibility of the user.

Compact Automation Products, LLC reserves the right to improve or change designs without notice.

All orders are subject to acceptance by the factory sales department.

Compact Automation Products, LLC agrees to repair or replace to the original purchaser any standard parts or products for a period of 12 months from date of shipment which Compact Automation Products, LLC determines upon inspection to be defective in workmanship or material. Wear components including but not limited to seals and bearings are excluded from this warranty.

Under no circumstance may merchandise be returned without written authorization from the factory.

This warranty is void in the event the product has been tampered with, altered, or serviced by unauthorized personnel.

Compact Automation Products, LLC's total responsibility for any claims, damages, losses or liabilities related to the product covered thereunder shall not exceed the purchase price of such product. In no event shall Compact Automation Products, LLC be liable for any special, indirect, incidental or consequential damages of any character, including but not limited to loss of use of productive facilities or equipment, lost profit, property damage, transportation, installation or removal or lost production whether suffered by purchaser or third party. Compact Automation Products, LLC disclaims all liability for any and all cost, claims demands, charges, expenses, and other damages, either direct or indirect, incident to all property damage arising out of any cause of action based on strict liability. This warranty gives you specific legal rights and you may have other rights, which vary from state to state.

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