# PFA Plug Valves

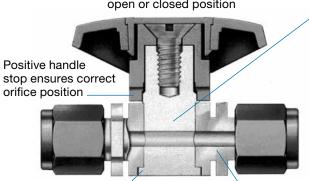
## 43 Series

#### **Features**

- Quarter-turn operation and full flow design.
- Light in weight.
- High-purity PFA material with low extractables for chemical resistance.
- 1/4 in. Swagelok® PFA tube fitting end connections for consistent performance.



Oval handle indicates open or closed position



Bottom-loaded stem is blowout-proof for safety

One-piece body eliminates multiple seal points

### **Technical Data**

Ordering Number	Orifice in. (mm)	C <sub>v</sub>	Pressure Rating at 70°F (20°C)
PFA-43S4	0.156 (4.0)	1.8	60 psig (4.1 bar)

# **Pressure-Temperature Ratings**

Temperature	Liquid Service	Gas Service	
°F (°C)	Working Pressure, psig (bar)		
0 (-17) to 50 (10) 50 (10) to 70 (20) 100 (37) 150 (65) 200 (93)	60 (4.1) 60 (4.1) 50 (3.4) 30 (2.0) 10 (0.68)	 60 (4.1) 50 (3.4) 30 (2.0)	

Operation in a stable temperature environment will maximize valve life and performance.

# Flow Data at 70°F (20°C)

Pressure Drop to Atmosphere (Δρ) psi (bar)	Air Flow std ft³/min (std L/min)	Water Flow U.S. gal/min (L/min)
10 (0.68)	20 (566)	5.7 (21.5)
30 (2.0)	37 (1047)	9.9 (37.4)
60 (4.1)	62 (1755)	14.0 (52.9)

Unique plug design

- provides full flow
- eliminates dead space
- does not require system pressure to create a seal
- is easily cleaned and purged

### **Materials of Construction**

Component	Material Grade/ ASTM Specification		
1 Handle insert <sup>①</sup>			
2 Screw <sup>①</sup>	PFA 440-HP		
3 Handle <sup>①</sup>			
4 Body, ferrules <sup>①</sup>	Virgin PFA 440-HP/ D3307		
5 Nut <sup>①</sup>	PFA 440-HP		
6 Stem	Virgin PTFE/ D1710		
Lubricant	PTFE-based		

Wetted components listed in italics.

① Blue dyed.

## **Testing**

Every 43 series PFA plug valve is factory tested with nitrogen at two times the rated pressure for leakage at the seat

to a maximum allowable leak rate of 0.1 std cm³/min. Body seals are tested with helium at two times the rated pressure to a maximum allowable leak rate of 1  $\times$  10<sup>-3</sup> std cm³/s.



Every 43 series PFA plug valve is cleaned and packaged in accordance with Swagelok *Standard Cleaning and Packaging (SC-10)*, MS-06-62.





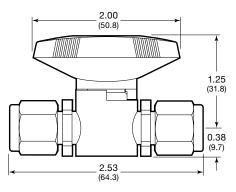




#### **Dimensions**

Dimensions, in inches (millimeters), are for reference only and are subject to change.

Ordering Number: PFA-43S4 Weight: 0.13 lb (0.06 kg)



Dimensions shown with Swagelok nuts positioned prior to swaging.

#### Accessories

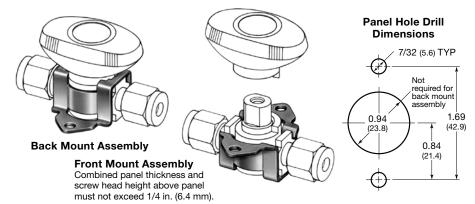
#### **Panel Mount Bracket**

316 stainless steel bracket enables back or front mounting.

To order a Swagelok PFA plug valve with back mount assembly, add -PM to the ordering number.

Example: PFA-43S4-PM

To order a field assembly kit with mounting bracket and instructions, use ordering number SS-MB-P43.



# **PFA Tubing PFA Tube PFA Needle Fittings** Valve

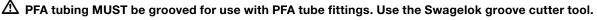
### **Other Swagelok PFA Products**

For more information about Swagelok PFA tubing and tools, see the Swagelok Hose and Flexible Tubing catalog, MS-01-180.

For more information about Swagelok PFA tube fittings, see the Swagelok PFA Tube Fittings catalog, MS-01-05.

For more information about Swagelok PFA needle valves, see the Swagelok PFA Needle Valves catalog, MS-01-69.

#### **Installation Instructions**



1. Insert grooved PFA tubing into the Swagelok PFA tube fitting until a clicking sound is heard.



2. While holding fitting body steady, tighten the blue nut until there is no gap between the nut and body hexes.



3. Continue tightening until the nut and body hexes are aligned.





#### Safe Product Selection

When selecting a product, the total system design must be considered to ensure safe, trouble-free performance. Function, material compatibility, adequate ratings, proper installation, operation, and maintenance are the responsibilities of the system designer and user.

### **⚠** WARNING

Do not mix/interchange Swagelok products or components not governed by industrial design standards, including Swagelok tube fitting end connections, with those of other manufacturers.

### **Warranty Information**

Swagelok products are backed by The Swagelok Limited Lifetime Warranty. For a copy, visit swagelok.com or contact your authorized Swagelok representative.