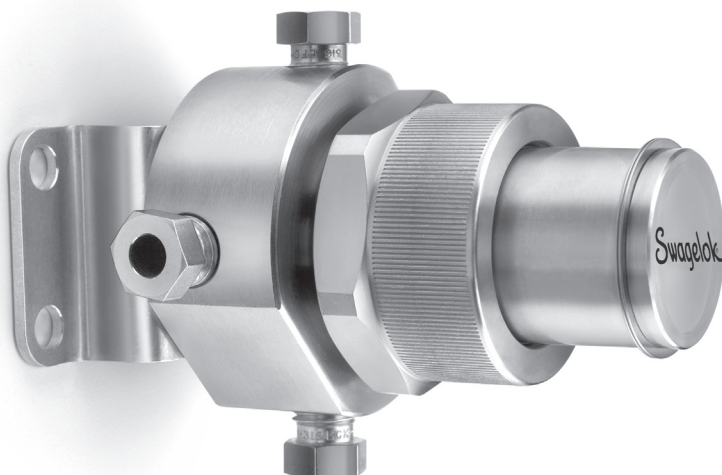


## Gas Filters



### FC Series

- Coalescing or particle filtration
- Designed for on-line process analyzers
- Easy element replacement
- 1/8 in., 1/4 in., and 6 mm end connections

## Features

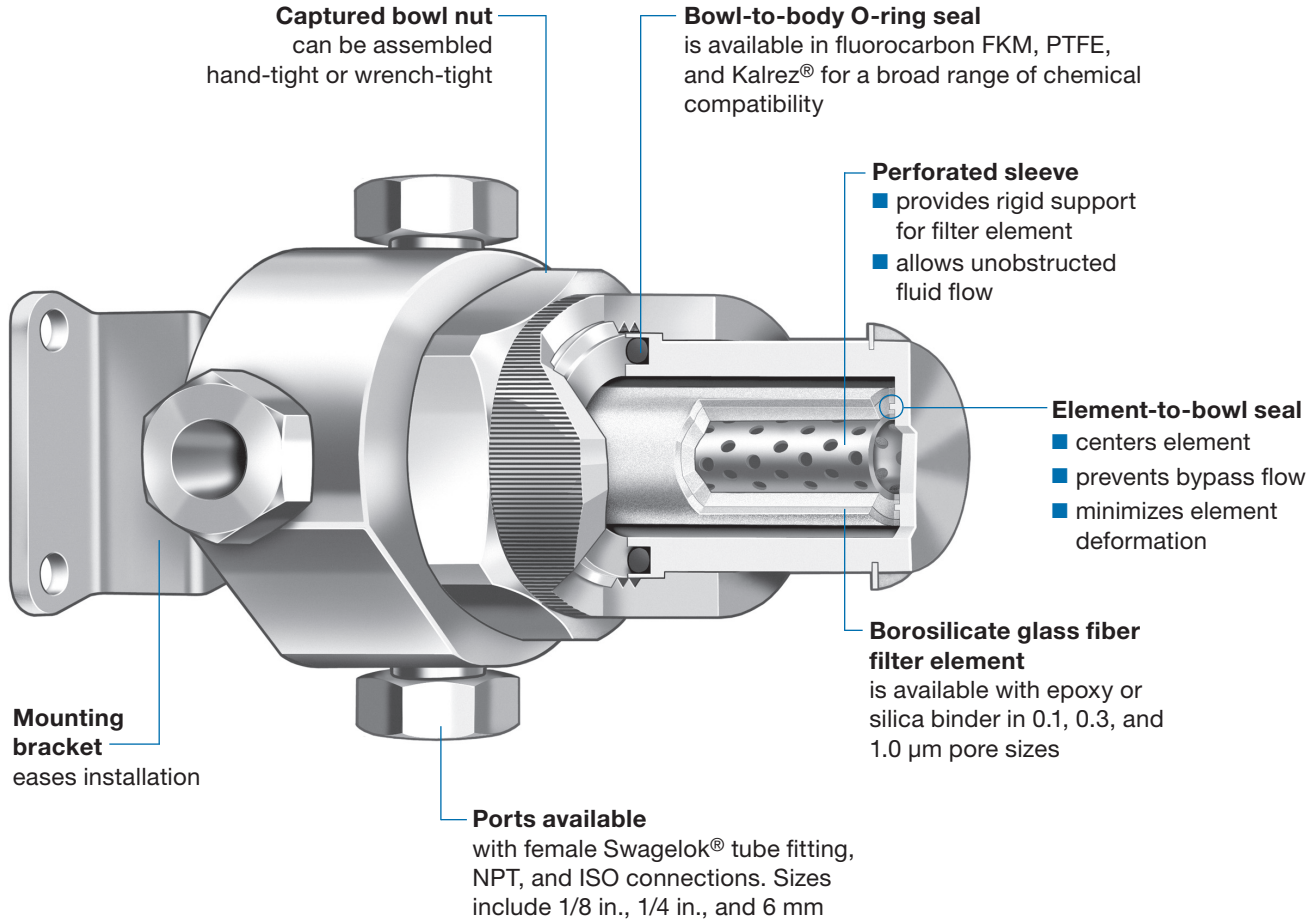
- Horizontal mounting reduces panel space requirements.
- Drain connection port located on body eliminates need to disconnect line when changing elements.
- Stainless steel construction enhances system cleanliness.

## Particulate Efficiency

99.99 % (all elements)

## Internal Volume

1.2 in.<sup>3</sup> (19.7 cm<sup>3</sup>)



## Materials of Construction

Component	Material Grade/ ASTM Specification
<i>Body, bowl</i>	316 SS/A479
Bowl nut	316 SS/A479
O-ring	Fluorocarbon FKM
<i>Filter element</i>	<i>Borosilicate glass fiber with epoxy or silica binder</i>
Sleeve	316 SS/A240
Retaining ring, mounting bracket	316 SS/A240
Mounting bracket bolt (2)	316 SS

Wetted components listed in *italics*.

## Pressure-Temperature Ratings

Ratings are based on bowl nut tightened to 45 in.·lb (5 N·m). Ratings are limited to 250°F (121°C) with epoxy binder. Ratings extend to 400°F (204°C) with silica binder.

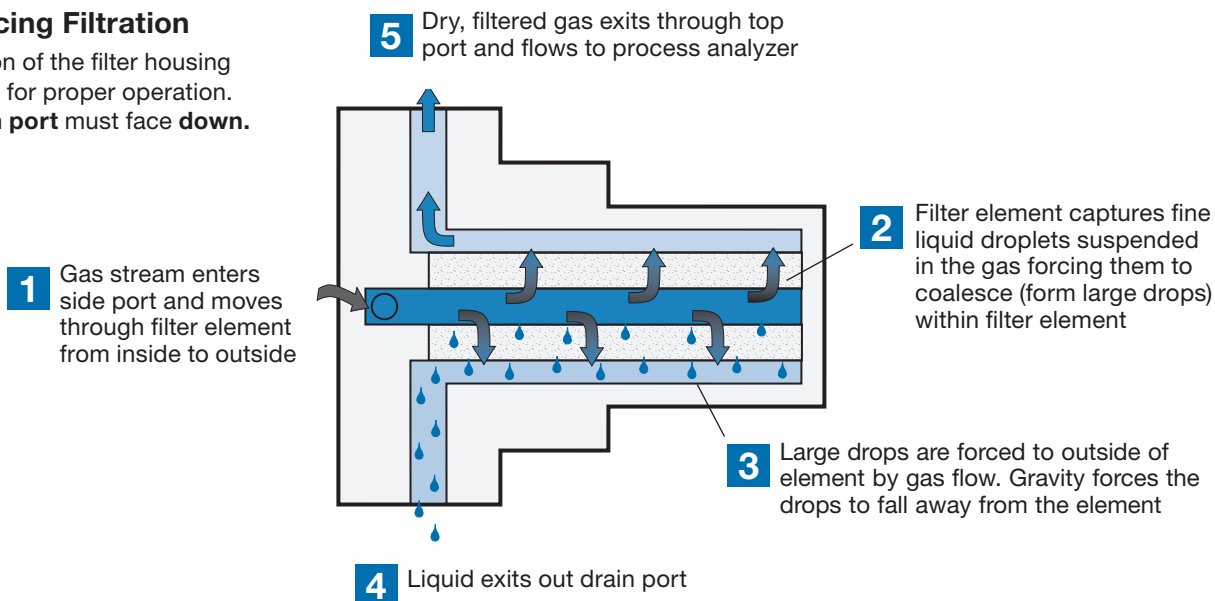
Fluorocarbon FKM O-rings are standard; for optional O-ring materials and ratings, see **Options**, page 4.

Material	316 SS
Temperature °F (°C)	Working Pressure psig (bar)
0 (-17) to 100 (37)	1000 (68.9)
150 (65)	955 (65.7)
200 (93)	915 (63.0)
250 (121)	870 (59.9)
300 (148)	825 (56.8)
350 (176)	795 (54.7)
400 (204)	760 (52.3)

## Operation

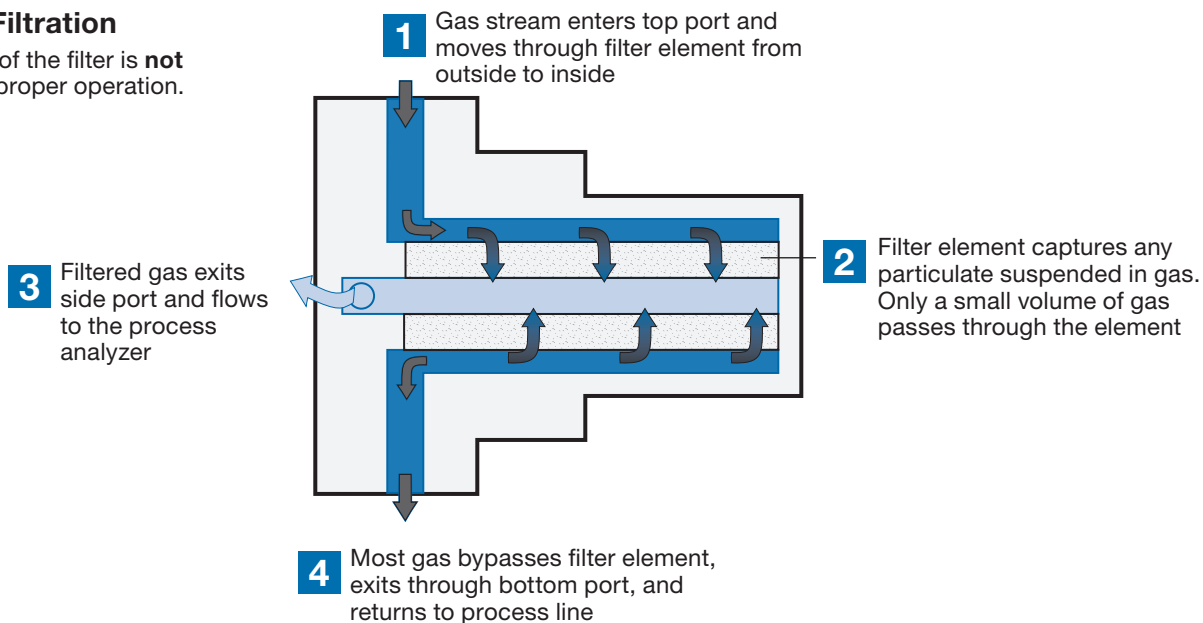
### Coalescing Filtration

Orientation of the filter housing is **critical** for proper operation. The **drain port** must face **down**.



### Particle Filtration

Orientation of the filter is **not critical** for proper operation.



### Air Flow Data at 70°F (20°C)

2 psi (0.13 bar) pressure differential

Pore Size µm	Inlet Pressure, psig (bar)							
	5 (0.34)	10 (0.68)	20 (1.3)	40 (2.7)	100 (6.8)	250 (17.2)	500 (34.4)	1000 (68.9)
Air Flow, std ft <sup>3</sup> /min (std L/min)								
0.1, 0.3	1.7 (48)	1.9 (53)	2.5 (70)	3.4 (96)	6.0 (160)	10 (280)	15 (420)	25 (700)
1.0	2.8 (79)	3.2 (90)	3.8 (100)	4.8 (130)	7.3 (200)	—	—	—

### Cleaning and Packaging

All FC series filters are cleaned in accordance with Swagelok *Standard Cleaning and Packaging (SC-10)*, MS-06-62.

## Ordering Information and Dimensions

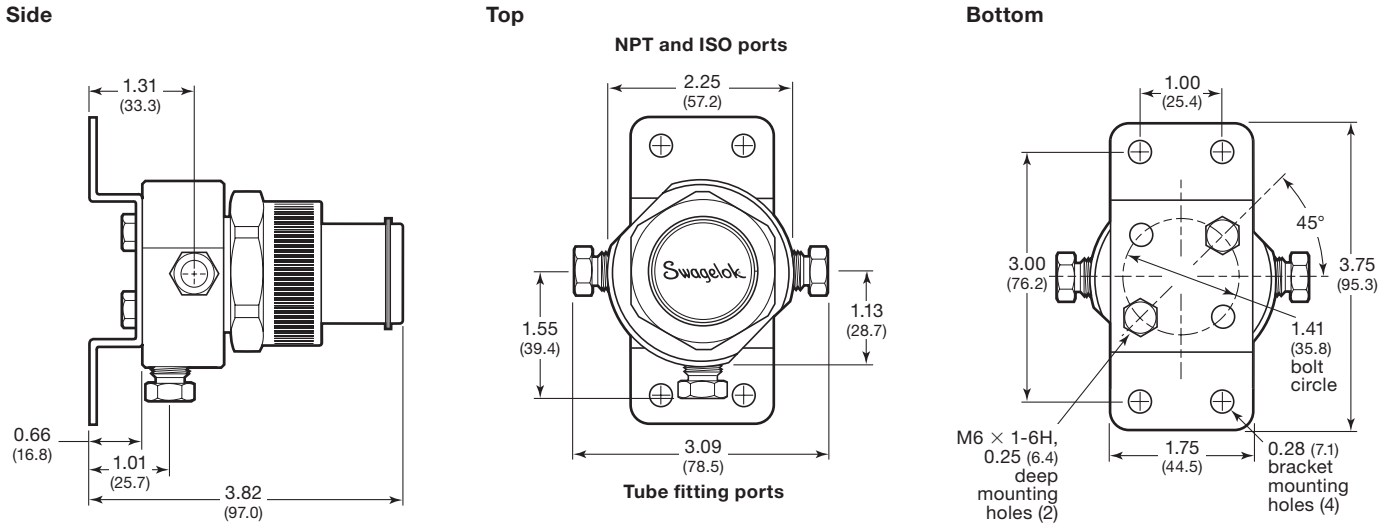
Select a filter ordering number and an element ordering number.

End Connections		Filter Ordering Number
Type	Size	
Female Swagelok tube fitting	1/4 in.	SS-FCB
	6 mm	SS-FCC
Female NPT	1/8 in.	SS-FCD
	1/4 in.	SS-FCE
Female ISO <sup>①</sup>	1/4 in.	SS-FCG

① See specifications ISO7/1, BS EN 10226-1, DIN 2999, JIS B0203.

Nominal Pore Size µm	Filtration Service	Element Ordering Number
<b>Epoxy Binder</b>		
0.1	Particle	GE-15K-FC-01
0.3	Coalescing and particle	GE-15K-FC-03
1.0	Particle	GE-15K-FC-10
<b>Silica Binder</b>		
0.1	Particle	GS-15K-FC-01

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



## Options

### Special Cleaning and Packaging (SC-11)

To order FC series filters with optional cleaning and packaging in accordance with Swagelok *Special Cleaning and Packaging (SC-11)*, MS-06-63, to ensure compliance with product cleanliness requirements stated in ASTM G93 Level C, add -SC11 to the filter ordering number.

Example: SS-FCB-SC11

### Oxygen Service Hazards

For more information about hazards and risks of oxygen-enriched systems, see the Swagelok *Oxygen System Safety* technical report, MS-06-13.

#### 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.**

**Caution: Do not mix or interchange parts with those of other manufacturers.**

### O-ring Materials

Fluorocarbon FKM is standard. PTFE and Kalrez are available.

To order an FC series filter with an optional O-ring, add a designator to the ordering number.

Example: SS-FCB-KZ

### O-ring Kits

Select a kit ordering number.

O-ring Material	Temperature Rating, °F (°C)	Designator	Kit Ordering Number
Fluorocarbon FKM	0 to 400 (-17 to 204)	—	VT-9K-FC
Kalrez	32 to 350 (0 to 176)	-KZ	KZ-9K-FC
PTFE	0 to 400 (-17 to 204)	-TR	T-9K-FC

## Warranty Information

Swagelok products are backed by The Swagelok Limited Lifetime Warranty. For a copy, visit [swagelok.com](http://swagelok.com) or contact your authorized Swagelok representative.

Swagelok—TM Swagelok Company  
Kalrez—TM DuPont Co.  
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Printed in U.S.A., GLI  
February 2008, R6  
MS-02-82