

Filters

F1 Series



- ❖ Filter element can be replaced without removing body from system
- ❖ Maximum working pressure: 6000 psig (413 bar)
- ❖ Working temperature: -20°F to 900°F (-28°C to 482°C)
- ❖ 316 stainless steel body material
- ❖ Variety of end connections

Features

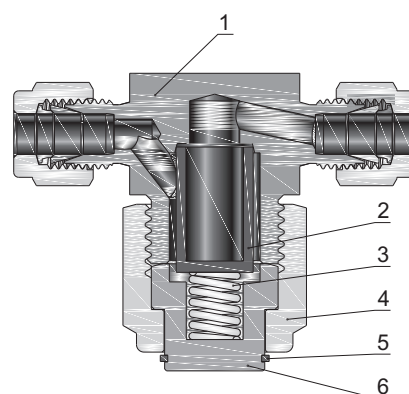
- ❖ Filter element replaceable without removing body filter from installation
- ❖ Optional bypass enables a continuous self cleaning flow around the element
- ❖ Nominal pore sizes for sintered element: 0.5, 2, 7, 15, 40, 60 and 90 µm
- ❖ Nominal pore sizes for strainer element: 100, 150, 250 and 450 µm
- ❖ Maximum working pressure up to 6000 psig (413 bar)
- ❖ Working temperature from -20°F to 900°F (-28°C to 482°C)
- ❖ Stainless steel and brass construction
- ❖ Variety of end connections

Pressure vs. Temperature

Material	316 S.S.	Brass
Temperature, °F(°C)	Working Pressure, psig (bar)	
-20 (-28) to 100 (37)	6000 (413)	2000 (137)
200 (93)	5160 (355)	1730 (119)
300 (148)	4660 (321)	1470 (101)
400 (204)	4280 (294)	—
500 (260)	3980 (274)	—
600 (315)	3760 (259)	—
650 (343)	3700 (254)	—
700 (371)	2600 (248)	—
750 (398)	3520 (242)	—
800 (426)	3460 (238)	—
850 (454)	3380 (232)	—
900 (482)	3280 (225)	—

Standard Materials of Construction

Component		Material Grade/ASTM Specification	
		316 S.S.	Brass
1	Body	316 S.S./A479	Brass C36000/B16
2	Element	Sintered 316 S.S. or strainer 316 S.S.	
3	Spring	304 S.S./A313	
4	Bonnet Nut	316 S.S./A479	C36000/B16
5	Retaining Ring	316 S.S./A276	
6	Bonnet	316 S.S./A479	C36000/B16



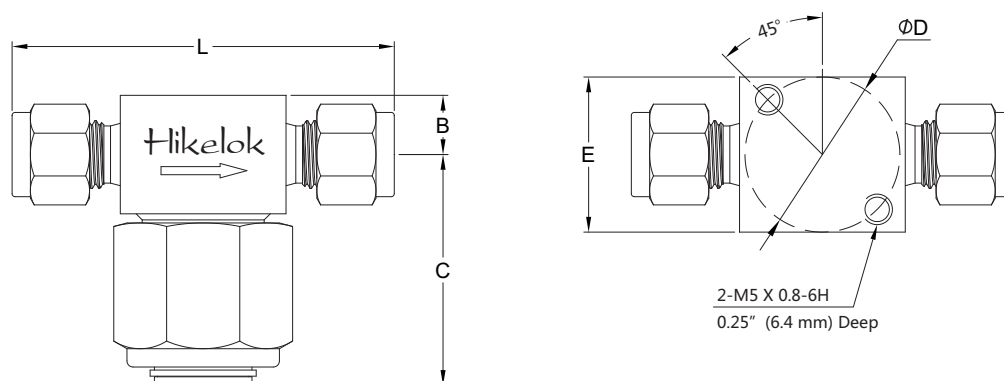
Maximum Differential Pressure of Clean Filter at 70°F (20°C)

Maximum Differential Pressure psig (bar)										
0.5 micron	2 micron	7 micron	15 micron	40 micron	60 micron	90 micron	100 micron	150 micron	250 micron	450 micron
2250 (155.2)	2250 (155.2)	1950 (134.5)	1750 (120.3)	1150 (79.3)	1150 (79.3)	1000 (68.9)	1000 (68.9)	1000 (68.9)	1000 (68.9)	1000 (68.9)

Elements

Nominal Pore Size μm	Pore Size Range μm	Element Type
0.5	0.5 to 2	Sintered
2	1 to 4	
7	5 to 10	
15	11 to 25	
40	35 to 53	
60	50 to 75	
90	75 to 100	
100	—	Strainer
150	—	
250	—	
450	—	

Dimensions



Basic Ordering Number	Connection Type and Size	Orifice in.(mm)	Filter Series	Dimension, in. (mm)					
				L	B	C	ØD	W	F
F1-F2-	1/8" Hikelok	0.094 (2.39)	4	2.27 (57.7)	0.38 (9.7)	1.49 (37.8)	1.00 (25.4)	1.00 (25.4)	1 (25.4)
F1-F4-	1/4" Hikelok	0.174 (4.41)	4	2.47 (62.7)					
F1-F6-	3/8" Hikelok	0.213 (5.41)	8	2.84 (72.1)	0.46 (11.7)	1.74 (44.2)	1.13 (28.7)	1.13 (28.7)	1 1/8 (28.6)
F1-F8-	1/2" Hikelok	0.250 (6.35)	8	3.04 (77.2)	0.53 (13.5)	1.81 (46.0)			
F1-M6-	6 mm Hikelok	0.174 (4.41)	4	2.46 (62.5)	0.38 (9.7)	1.49 (37.8)	1.00 (25.4)	1.00 (25.4)	1 (25.4)
F1-M8-	8 mm Hikelok	0.213 (5.41)	8	2.84 (72.1)	0.46 (11.7)	1.74 (44.2)	1.13 (28.7)	1.13 (28.7)	1 1/8 (28.6)
F1-M10-	10 mm Hikelok	0.250 (6.35)	8	2.86 (72.6)					
F1-M12-	12 mm Hikelok	0.250 (6.35)	8	3.04 (77.2)	0.53 (13.5)	1.81 (46.0)	1.00 (25.4)	1.00 (25.4)	1 (25.4)
F1-FSW4-	1/4" FSW	0.174 (4.41)	4	1.68 (42.7)	0.38 (9.7)	1.49 (37.8)			
F1-FSW6-	3/8" FSW	0.174 (4.41)	4						
F1-FBW4-	1/4" FBW	0.174 (4.41)	4						
F1-FBW6-	3/8" FBW	0.174 (4.41)	4						
F1-FNPT2-	1/8 Female NPT	0.094 (2.39)	4	2.00 (50.8)	0.46 (11.7)	1.74 (44.2)	1.13 (28.7)	1.13 (28.7)	1 1/8 (28.6)
F1-FNPT4-	1/4 Female NPT	0.174 (4.41)	4	2.13 (54.1)					
F1-NPT4-	1/4 Male NPT	0.174 (4.41)	4						
F1-NPT6-	3/8 Male NPT	0.213 (5.41)	8	2.38 (60.5)	0.53 (13.5)	1.81 (46.0)	1.13 (28.7)	1.13 (28.7)	1 1/8 (28.6)
F1-NPT8-	1/2 Male NPT	0.250 (6.35)	8	2.75 (69.9)	0.63 (16.0)	1.91 (48.5)			
F1-GFS4-	1/4 Male GFS	0.174 (4.41)	4	2.30 (58.4)	0.38 (9.7)	1.49 (37.8)	1.00 (25.4)	1.00 (25.4)	1 (25.4)
F1-GFS8-	1/2 Male GFS	0.250 (6.35)	8	2.55 (64.8)	0.46 (11.7)	1.74 (44.2)	1.13 (28.7)	1.13 (28.7)	1 1/8 (28.6)

How to Order

F1 — F6 — M10 — S90 — B4 — 316

Filter Series	Inlet Type	Inlet Size	Outlet Type	Outlet Size	Element Type	Element Nom-inal Pore Size	Bypass Port for F1	Body Material
F1	FNPT Female NPT	2 1/8 in.	Same as inlet type and inlet size		S Sintered	Sintered	None	316 316 S.S.
	NPT Male NPT	4 1/4 in.			T Strainer	05 0.5µm	B2 FNPT2	316L 316L S.S.
	FBT Female BSPT	6 3/8 in. or 6 mm			2 2µm	B4 FNPT4	304 304 S.S.	
	MBT Male BSPT	8 1/2 in. or 8 mm			7 7µm	B8 FNPT8	304L 304L S.S.	
	FMS Female ISO 261	10 10 mm	If outlet and inlet are the same, eliminate the outlet designator		15 15µm	F2 F2	BR Brass	
	MS Male ISO 261	12 3/4 in. or 12 mm			40 40µm	F4 F4		
	FBP Female BSPP	14 14 mm or M14 x 1.5			60 60µm	F6 F6		
	MBP Male BSPP	16 1 in. or 16 mm			90 90µm	F8 F8		
	F Fractional Tube Fitting	18 18 mm			100 100µm			
	M Metric Tube Fitting	20 1 1/4 in. or 20 mm			150 150µm			
	FSW Fractional Tube Socket Weld	22 22 mm or M22 x1.5			250 250µm			
	FBW Fractional Tube Butt Weld	25 25 mm			450 450µm			
	GFS Male GFS Fitting							