CIR-LOK
FLUID SYSTEM SOLUTIONS

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

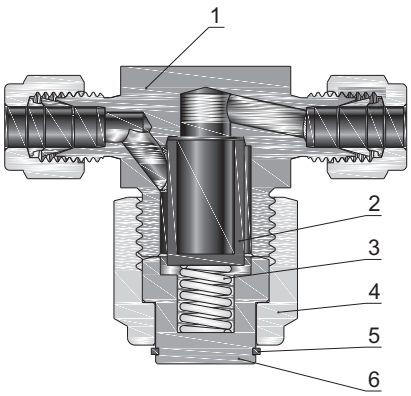
- Filter element replaceable without removing body filter from installation
- Optional bypass enables a continuous self cleaning flow around the element
- Nominal pore sizes for sintered element: 0.5, 2, 7, 15, 40, 60 and 90 µm
- Nominal pore sizes for strainer element: 100, 150, 250 and 450 µm
- Maximum 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



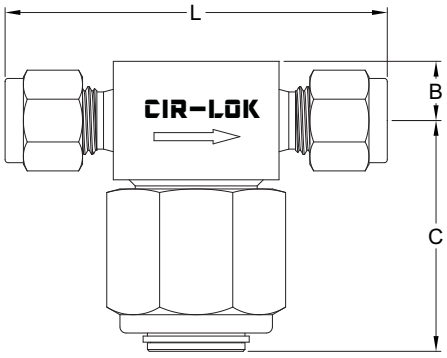
Maximum Differential Pressure of Clean Filter at 70°F (20°C)

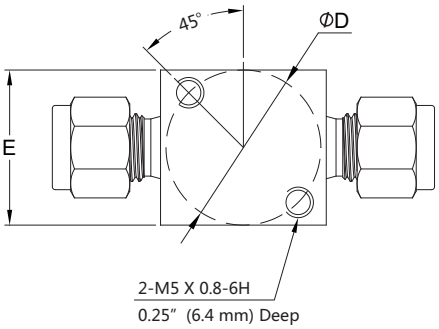
Maximum Differential Pressure psig (bar)										
0.5 micron	2 micron	7 micron	15 micron	40 micron	60 micron	90 micron	100 micron	150 micron	250 micron	450 micron
2250 (155.2)	2250 (155.2)	1950 (134.5)	1750 (120.3)	1150 (79.3)	1150 (79.3)	1000 (68.9)	1000 (68.9)	1000 (68.9)	1000 (68.9)	1000 (68.9)

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" CIR-LOK	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" CIR-LOK	0.174 (4.41)	4	2.47 (62.7)					
F1-F6-	3/8" CIR-LOK	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" CIR-LOK	0.250 (6.35)	8	3.04 (77.2)	0.53 (13.5)	1.81 (46.0)			
F1-M6-	6 mm CIR-LOK	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 CIR-LOK	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 CIR-LOK	0.250 (6.35)	8	2.86 (72.6)					
F1-M12-	12 mm CIR-LOK	0.250 (6.35)	8	3.04 (77.2)	0.53 (13.5)	1.81 (46.0)			
F1-FSW4-	1/4" FSW	0.174 (4.41)	4	1.68 (42.7)	0.38 (9.7)	1.49 (37.8)	1.00 (25.4)	1.00 (25.4)	1 (25.4)
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)					
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		0.46 (11.7)	1.74 (44.2)			
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 Nominal Pore Size	Bypass Port for F1	Body Material
F1	**FNPT** Female NPT **NPT** Male NPT **FBT** Female BSPT **MBT** Male BSPT **FMS** Female ISO 261 **MS** Male ISO 261 **FBP** Female BSPP **MBP** Male BSPP **F** Fractional Tube Fitting **M** Metric Tube Fitting **FSW** Fractional Tube Socket Weld **FBW** Fractional Tube Butt Weld **GFS** Male GFS Fitting	**2** 1/8 in. **4** 1/4 in. **6** 3/8 in. or 6 mm **8** 1/2 in. or 8 mm **10** 10 mm **12** 3/4 in. or 12 mm **14** 14 mm or M14 x 1.5 **16** 1 in. or 16 mm **18** 18 mm **20** 1 1/4 in. or 20 mm **22** 22 mm or M22 x1.5 **25** 25 mm	Same as inlet type and inlet size If outlet and inlet are the same, eliminate the outlet designator	**S** Sintered **T** Strainer	Sintered **05** 0.5µm **2** 2µm **7** 7µm **15** 15µm **40** 40µm **60** 60µm **90** 90µm Strainer **100** 100µm **150** 150µm **250** 250µm **450** 450µm	None **B2** FNPT2 **B4** FNPT4 **B8** FNPT8 **F2** F2 **F4** F4 **F6** F6 **F8** F8	**316** 316 S.S. **316L** 316L S.S **304** 304 S.S. **304L** 304L S.S. **BR** Brass