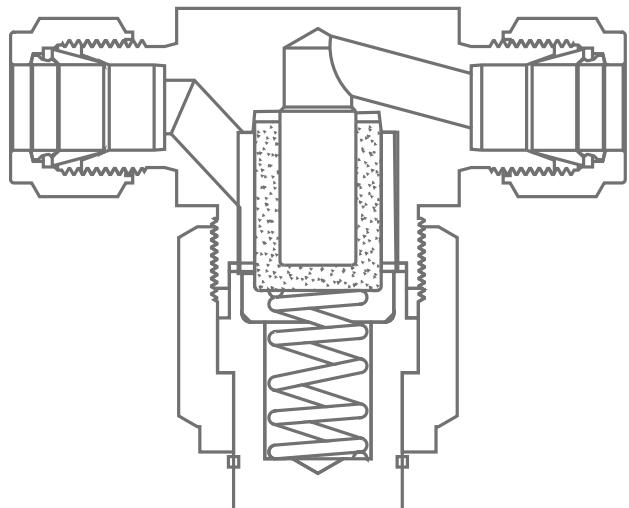




Instrument Valves and Fittings

# Filters



## Filtration Definitions

- ◎ Sintered element: metal powder (alloys are available) is pressed in a die at sufficient pressure that the powder particles adhere at their contact points.
- ◎ Strainer element: the strainer is cup-shaped and includes an inner cup-shaped support structure having staggered perforations extending through the surfaces thereof an outer cup-shaped strainer structure constructed of wire mesh is closely received over the support structure
- ◎ Element nominal pore size: the element nominal pore size is normally calculated from the pressure required to cause air to bubble from the largest pore in the filter element when submerged in a test liquid.

## Features

### In-line Filters

#### 1F Series

- ◎ Compact and space-saving design
- ◎ Nominal pore sizes for sintered element: 0.5, 2, 7, 15, 40, 60 and 80µm
- ◎ Nominal pore sizes for strainer element: 100, 150, 250 and 450µm
- ◎ Maximum working pressure: 3000 psig (207 bar)
- ◎ Working temperature: -20°F to 900°F (-29°C to 482°C)
- ◎ Body materials: 316 SS, 316L SS, 304 SS, 304L SS, 321 SS and Brass
- ◎ Variety of end connections available

### Tee-type Filters

#### 2F Series

- ◎ Filter element replaceable without removing body from system
- ◎ Union bonnet design
- ◎ Nominal pore sizes for sintered element: 0.5, 2, 7, 15, 40, 60 and 80µm
- ◎ Nominal pore sizes for strainer element: 100, 150, 250 and 450µm
- ◎ Maximum working pressure: 6000 psig (414 bar)
- ◎ Working temperature: -20°F to 900°F (-29°C to 482°C)
- ◎ Body materials: 316 SS, 316L SS, 304 SS, 304L SS and Brass
- ◎ Variety of end connections available

### Bypass Filters

#### 3F Series

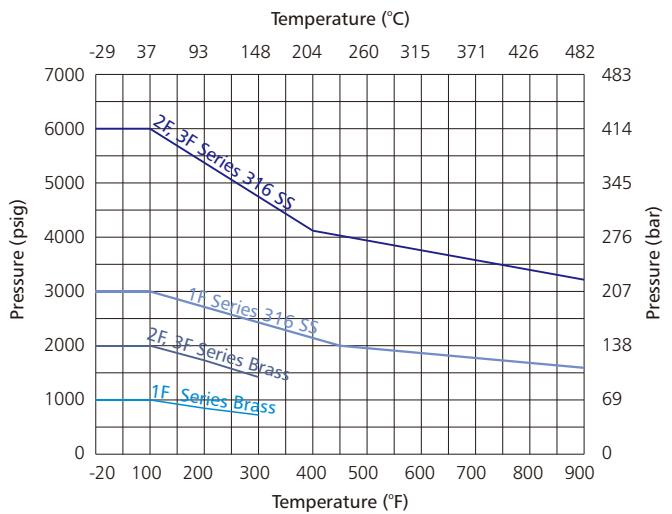
- ◎ Bypass port at filter bottom for the ease of sampling or purging
- ◎ Union bonnet design
- ◎ Nominal pore sizes for sintered element: 0.5, 2, 7, 15, 40, 60 and 80µm
- ◎ Nominal pore sizes for strainer element: 100, 150, 250 and 450µm
- ◎ Maximum working pressure: 6000 psig (414 bar)
- ◎ Working temperature: -20°F to 900°F (-29°C to 482°C)
- ◎ Body materials: 316 SS, 316L SS, 304 SS, 304L SS and Brass
- ◎ Variety of end connections available

### All-welded In-line Filters

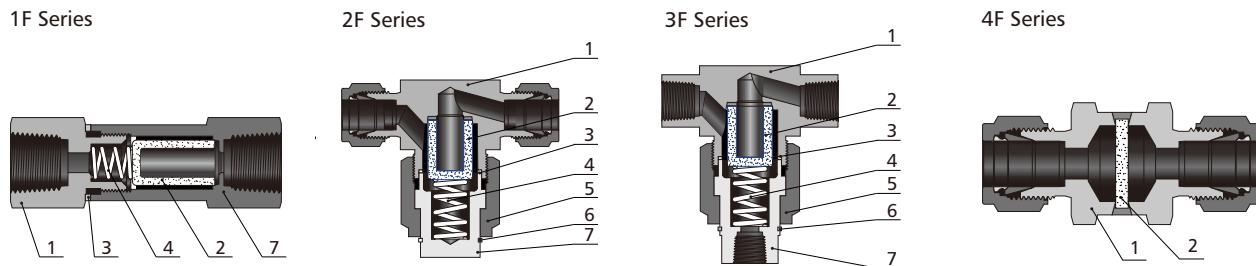
#### 4F Series

- ◎ Large filtration area and high flow coefficient
- ◎ All-welded construction for elimination of leakage
- ◎ Easy cleaning of filters by backflushing
- ◎ Full-penetration weld between body and element
- ◎ Nominal pore sizes for sintered element: 0.5, 2, 7, 15, 40, 60 and 80µm
- ◎ Maximum working pressure: 6000 psig (414 bar)
- ◎ Working temperature: -20°F to 900°F (-29°C to 482°C)
- ◎ Body materials: 316 SS, 316LSS, 304 SS, 304L SS and Brass
- ◎ Variety of end connections available

## Pressure vs. Temperature



Contact the authorized representative or KUN-LOK for curve graph of other materials



## Standard Materials of Construction

Component	Material Grade/ASTM Specification	
	316 SS	Brass
1 Body	316 SS/A479	Brass/B16
2 Element	Sintered 316 SS or strainer 316 SS	Sintered 316 SS or strainer 316 SS
3 Gasket	PTFE/D1710 or silver-plated 316 SS/A240	PTFE/D1710 or aluminum/B209
4 Spring	302 SS/A313	302 SS/A313
5 Bonnet Nut	316 SS/A479	Brass/B16
6 Backup Ring	316 SS/A276	
7 Bonnet	316 SS/A479	Brass/B16

1. 4F Series filters not available in brass

2. Lubricants: molybdenum disulfide-based and silicone-based

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

Series	Maximum Differential Pressure psig (bar)										
	0.5 micron	2 micron	7 micron	15 micron	40 micron	60 micron	80 micron	100 micron	150 micron	250 micron	450 micron
1F, 2F, 3F	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)
4F	600 (41.4)	100 (6.9)	100 (6.9)	100 (6.9)	—	—	—	—	—	—	—

## Elements

Nominal Pore Size $\mu\text{m}$	Pore Size Range $\mu\text{m}$	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	
80	70 to 95	
100	—	Strainer
150	—	
250	—	
450	—	

## Filtration Area

Series	Orifice in. (mm)	Filtration Area in. <sup>2</sup> (mm <sup>2</sup> )	
		Sintered	Strainer
2F, 3F	0.094 (2.04)	1.30 (830)	1.00 (640)
2F, 3F	0.172 (4.36)	1.30 (830)	1.00 (640)
2F, 3F	0.213 (5.41)	2.00 (1280)	1.70 (1090)
2F, 3F	0.250 (6.35)	2.00 (1280)	1.70 (1090)
1F	0.094 (2.39)	0.55 (350)	—
1F	0.187 (4.75)	1.30 (830)	1.00 (640)
1F	0.281 (7.14)	2.00 (1280)	1.70 (1090)
1F	0.406 (10.30)	2.00 (1280)	1.70 (1090)
4F	0.187 (4.75)	0.44 (283)	—

## Flow Data at 70°F (20°C)

### 2F, 3F Series

Pressure Drop to Atmosphere p psig (bar)	2 Series		4 Series		6, 8 Series	
	Water Flow, U.S. gal (L/min)	Air Flow, std ft <sup>3</sup> /min (std L/min)	Water Flow, U.S. gal (L/min)	Air Flow, std ft <sup>3</sup> /min (std L/min)	Water Flow, U.S. gal (L/min)	Air Flow, std ft <sup>3</sup> /min (std L/min)
	0.5 Micron Cv = 0.035		0.5 Micron Cv = 0.035		0.5 Micron Cv = 0.052	
5 (0.34)	0.07 (0.26)	0.40 (11.3)	0.07 (0.26)	0.40 (11.3)	0.11 (0.43)	0.47 (13.3)
10 (0.69)	0.11 (0.42)	0.50 (14.2)	0.11 (0.42)	0.50 (14.2)	0.16 (0.62)	0.74 (21.0)
50 (3.45)	0.25 (0.95)	1.33 (37.7)	0.25 (0.95)	1.33 (37.7)	0.36 (1.38)	1.96 (55.5)
	2 Micron Cv = 0.068		2 Micron Cv = 0.072		2 Micron Cv = 0.096	
5 (0.34)	0.15 (0.56)	0.77 (21.8)	0.16 (0.60)	0.82 (23.2)	0.21 (0.81)	1.09 (30.9)
10 (0.69)	0.22 (0.83)	0.97 (27.5)	0.22 (0.83)	1.02 (28.9)	0.30 (1.14)	1.37 (38.8)
50 (3.45)	0.48 (1.81)	2.58 (73.1)	0.51 (1.93)	2.72 (77.0)	0.67 (2.53)	3.64 (103.1)
	7 Micron Cv = 0.158		7 Micron Cv = 0.165		7 Micron Cv = 0.35	
5 (0.34)	0.35 (1.32)	1.80 (51.0)	0.37 (1.40)	1.88 (53.2)	0.78 (2.96)	4.00 (113.3)
10 (0.69)	0.50 (1.89)	2.25 (63.7)	0.52 (1.96)	2.35 (66.5)	1.10 (4.18)	5.00 (141.6)
50 (3.45)	1.12 (4.22)	5.98 (169.3)	1.16 (4.38)	6.25 (177.0)	2.47 (9.35)	13.30 (376.6)
	15 Micron Cv = 0.19		15 Micron Cv = 0.20		15 Micron Cv = 0.37	
5 (0.34)	0.42 (1.61)	2.16 (61.2)	0.44 (1.66)	2.28 (64.6)	0.82 (3.12)	4.20 (118.9)
10 (0.69)	0.60 (2.27)	2.71 (76.7)	0.63 (2.38)	2.85 (80.7)	0.82 (3.12)	5.28 (149.5)
50 (3.45)	1.34 (5.06)	7.20 (203.9)	1.41 (5.33)	7.58 (214.6)	2.61 (9.88)	14.00 (396.4)
	40 Micron Cv = 0.23		40 Micron Cv = 0.24		40 Micron Cv = 0.42	
5 (0.34)	0.51 (1.94)	2.62 (74.2)	0.54 (2.04)	2.74 (77.6)	0.93 (3.54)	4.80 (135.9)
10 (0.69)	0.73 (2.76)	3.28 (96.8)	0.76 (2.87)	3.42 (96.8)	1.32 (5.02)	6.00 (169.9)
50 (3.45)	1.63 (6.16)	8.74 (247.5)	1.70 (6.42)	9.11 (258.0)	2.96 (11.20)	15.90 (450.2)
	60 Micron Cv = 0.24		60 Micron Cv = 0.25		60 Micron Cv = 0.45	
5 (0.34)	0.54 (2.04)	2.74 (77.6)	0.56 (2.11)	2.85 (80.7)	1.00 (3.78)	5.10 (144.4)
10 (0.69)	0.76 (2.87)	3.42 (96.8)	0.79 (2.98)	3.57 (101.1)	1.42 (5.37)	6.40 (181.2)
50 (3.45)	1.70 (6.42)	9.11 (258.0)	1.77 (6.70)	9.49 (268.7)	3.18 (12.00)	17.00 (481.4)
	80 Micron Cv = 0.25		80 Micron Cv = 0.26		80 Micron Cv = 0.67	
5 (0.34)	0.56 (2.11)	2.85 (80.7)	0.58 (2.19)	2.96 (83.8)	1.49 (5.66)	7.64 (216.3)
10 (0.69)	0.79 (2.98)	3.57 (101.1)	0.82 (3.10)	3.70 (104.8)	2.11 (5.89)	9.55 (270.4)
50 (3.45)	1.77 (6.70)	9.49 (268.7)	1.84 (6.95)	9.80 (277.5)	4.73 (17.90)	25.40 (719.2)
	100 Micron Cv = 0.27		100 Micron Cv = 0.28		100 Micron Cv = 0.72	
5 (0.34)	0.60 (2.27)	3.08 (87.2)	0.62 (2.34)	3.20 (90.6)	1.61 (6.08)	8.20 (232.2)
10 (0.69)	0.85 (3.21)	3.85 (109.0)	0.88 (3.30)	4.00 (113.2)	2.27 (8.61)	10.20 (288.8)
50 (3.45)	1.91 (7.22)	10.20 (288.8)	1.98 (7.48)	5.30 (150.1)	5.09 (19.20)	27.20 (770.2)
	150, 250, 450 Micron Cv = 0.55		150, 250, 450 Micron Cv = 0.58		150, 250, 450 Micron Cv = 0.82	
5 (0.34)	1.23 (4.65)	6.28 (177.8)	1.30 (4.91)	6.60 (186.9)	1.83 (6.93)	9.36 (265.0)
10 (0.69)	1.74 (6.58)	7.85 (222.3)	1.83 (6.91)	8.20 (232.2)	2.59 (9.80)	11.70 (331.3)
50 (3.45)	3.89 (14.70)	20.80 (589.0)	4.10 (15.50)	21.90 (620.1)	5.79 (21.90)	27.20 (770.2)

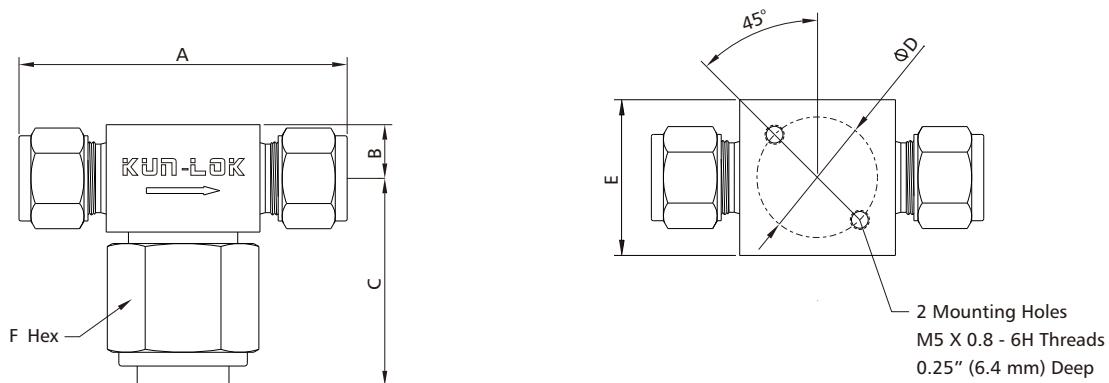
1F Series

Pressure Drop to Atmosphere p psig (bar)	2 Series		4 Series		6, 8 Series	
	Water Flow, U.S. gal (L/min)	Air Flow, std ft <sup>3</sup> /min (std L/min)	Water Flow, U.S. gal (L/min)	Air Flow, std ft <sup>3</sup> /min (std L/min)	Water Flow, U.S. gal (L/min)	Air Flow, std ft <sup>3</sup> /min (std L/min)
	0.5 Micron Cv = 0.008		0.5 Micron Cv = 0.038		0.5 Micron Cv = 0.187	
5 (0.34)	0.01 (0.03)	0.09 (2.6)	0.08 (0.30)	0.42 (11.9)	0.41 (1.54)	2.09 (59.2)
10 (0.69)	0.02 (0.07)	0.11 (3.1)	0.12 (0.45)	0.52 (14.7)	0.59 (2.23)	2.56 (72.5)
50 (3.45)	0.05 (0.18)	0.30 (8.5)	0.26 (0.98)	1.42 (40.2)	1.32 (4.98)	6.99 (197.9)
	2 Micron Cv = 0.022		2 Micron Cv = 0.106		2 Micron Cv = 0.374	
5 (0.34)	0.04 (0.15)	0.24 (6.8)	0.23 (0.86)	1.18 (33.4)	0.83 (3.13)	4.20 (118.9)
10 (0.69)	0.06 (0.22)	0.30 (8.5)	0.42 (1.58)	1.45 (41.1)	1.18 (4.46)	5.13 (145.3)
50 (3.45)	0.15 (0.56)	0.82 (23.2)	0.74 (2.79)	3.96 (112.1)	2.64 (9.97)	14.00 (396.4)
	7 Micron Cv = 0.028		7 Micron Cv = 0.112		7 Micron Cv = 0.406	
5 (0.34)	0.06 (0.22)	0.31 (8.7)	0.25 (0.94)	1.26 (35.7)	0.90 (3.40)	4.56 (129.1)
10 (0.69)	0.08 (0.30)	0.38 (10.8)	0.35 (1.32)	1.54 (43.6)	1.28 (4.83)	5.57 (157.7)
50 (3.45)	0.19 (0.71)	1.05 (29.7)	0.79 (2.98)	4.20 (118.9)	2.87 (10.80)	15.20 (430.4)
	15 Micron Cv = 0.096		15 Micron Cv = 0.183		15 Micron Cv = 0.515	
5 (0.34)	0.21 (0.79)	1.08 (30.6)	0.40 (1.51)	2.05 (58.0)	1.15 (4.37)	5.78 (163.7)
10 (0.69)	0.30 (1.13)	1.32 (37.4)	0.57 (2.15)	2.50 (70.8)	1.62 (6.12)	7.07 (200.2)
50 (3.45)	0.67 (2.53)	3.60 (101.9)	1.29 (4.87)	6.80 (192.6)	3.64 (13.70)	19.20 (543.7)
	40 Micron Cv = 0.143		40 Micron Cv = 0.294		40 Micron Cv = 0.678	
5 (0.34)	0.32 (1.20)	1.60 (43.7)	0.65 (2.45)	3.30 (93.4)	1.51 (5.70)	7.72 (218.6)
10 (0.69)	0.45 (1.70)	1.95 (55.2)	0.92 (3.47)	4.03 (114.1)	2.14 (8.08)	9.43 (267.0)
50 (3.45)	1.01 (3.81)	5.34 (151.2)	2.07 (7.82)	11.00 (311.5)	4.79 (18.10)	25.70 (727.7)
	60 Micron Cv = 0.168		60 Micron Cv = 0.325		60 Micron Cv = 0.874	
5 (0.34)	0.37 (1.39)	1.89 (53.5)	0.72 (2.72)	3.57 (101.0)	1.95 (7.37)	9.81 (277.8)
10 (0.69)	0.53 (2.00)	2.31 (65.4)	1.02 (3.85)	4.46 (126.3)	2.76 (10.40)	11.90 (337.0)
50 (3.45)	1.18 (4.46)	6.30 (178.4)	2.29 (8.86)	12.10 (342.6)	6.18 (23.30)	32.70 (926.0)
	80 Micron Cv = 0.198		80 Micron Cv = 0.473		80 Micron Cv = 1.106	
5 (0.34)	0.44 (1.66)	2.22 (62.3)	1.05 (3.96)	5.31 (150.4)	2.47 (9.33)	12.40 (351.1)
10 (0.69)	0.62 (2.34)	2.71 (76.7)	1.49 (5.63)	6.49 (183.8)	3.49 (13.10)	15.10 (427.6)
50 (3.45)	1.40 (5.29)	7.41 (209.8)	3.34 (12.60)	17.70 (501.2)	7.82 (29.50)	41.40 (1172.3)
	100 Micron Cv = 0.220		100 Micron Cv = 0.565		100 Micron Cv = 1.218	
5 (0.34)	0.49 (1.85)	2.47 (69.9)	1.26 (4.76)	6.35 (179.8)	2.72 (10.20)	13.60 (385.1)
10 (0.69)	0.69 (2.60)	3.02 (85.5)	1.78 (6.72)	7.76 (219.7)	3.85 (14.50)	16.70 (472.9)
50 (3.45)	1.55 (5.85)	8.25 (233.6)	3.99 (15.00)	21.10 (597.5)	8.61 (32.50)	45.60 (1291.2)
	150, 250, 450 Micron Cv = 0.264		150, 250, 450 Micron Cv = 0.780		150, 250, 450 Micron Cv = 2.413	
5 (0.34)	0.59 (2.23)	2.97 (84.1)	1.74 (6.57)	8.70 (246.3)	5.39 (20.30)	27.00 (764.6)
10 (0.69)	0.83 (3.13)	3.63 (102.8)	2.46 (9.29)	10.70 (303.0)	7.63 (28.80)	33.10 (937.3)
50 (3.45)	1.86 (7.03)	9.90 (280.3)	5.51 (20.80)	29.20 (826.9)	17.00 (64.20)	90.30 (2557.0)

Pressure Drop to Atmosphere $\Delta p$ psig (bar)	4 Series	
	Water Flow, U.S. gal (L/min)	Air Flow, std ft <sup>3</sup> /min (std L/min)
0.5 Micron Cv = 0.008		
5 (0.34)	0.01 (0.03)	0.09 (2.6)
10 (0.69)	0.02 (0.07)	0.11 (3.1)
50 (3.45)	0.05 (0.18)	0.30 (8.5)
2 Micron Cv = 0.42		
5 (0.34)	0.93 (3.50)	4.72 (133.7)
10 (0.69)	1.32 (4.98)	5.77 (163.4)
50 (3.45)	2.96 (11.10)	15.70 (444.6)
5 Micron Cv = 0.45		
5 (0.34)	1.00 (3.78)	5.04 (142.7)
10 (0.69)	1.42 (5.36)	6.16 (174.4)
50 (3.45)	3.18 (12.00)	16.80 (475.7)
15 Micron Cv = 0.76		
5 (0.34)	1.69 (6.22)	8.55 (242.1)
10 (0.69)	2.40 (9.07)	10.40 (294.5)
50 (3.45)	5.37 (20.30)	28.50 (807.0)

## Dimensions

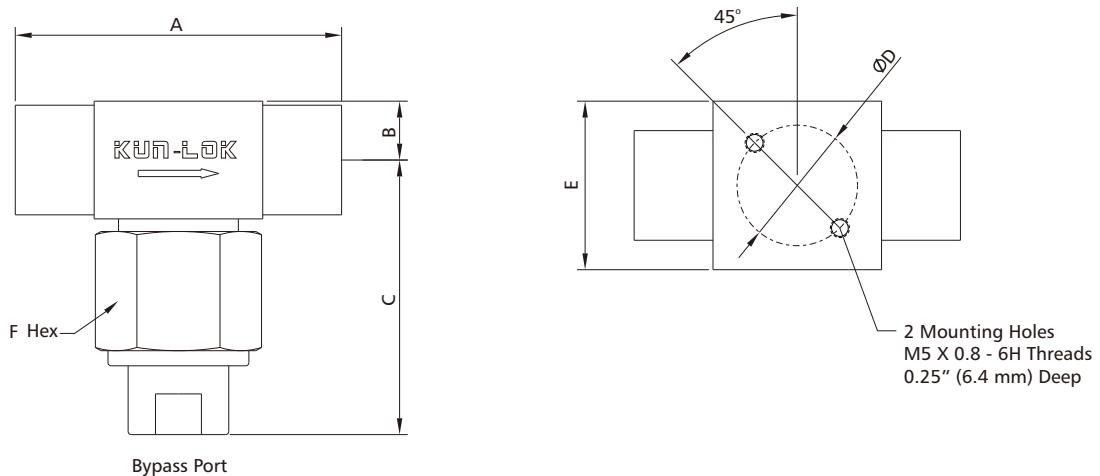
2F Series



Basic Ordering Number	Connection Type and Size		Element Series	Dimension, in. (mm)					
	Inlet	Outlet		A	B	C	D	E	F
□□2F4-F1-	1/8" KUN-LOK	1/8" KUN-LOK	4	2.27 (57.7)	0.38 (9.7)	1.49 (37.8)	1.00 (25.4)	1.00 (25.4)	1 (25.4)
□□2F4-F2-	1/4" KUN-LOK	1/4" KUN-LOK	4	2.47 (62.7)					
□□2F8-F3-	3/8" KUN-LOK	3/8" KUN-LOK	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)
□□2F8-F4-	1/2" KUN-LOK	1/2" KUN-LOK	8	3.04 (77.2)					
□□2F4-M6-	6 mm KUN-LOK	6 mm KUN-LOK	4	2.46 (62.5)	0.38 (9.7)	1.49 (37.8)	1.00 (25.4)	1.00 (25.4)	1 (25.4)
□□2F8-M8-	8 mm KUN-LOK	8 mm KUN-LOK	8	2.84 (72.1)					
□□2F8-M10-	10 mm KUN-LOK	10 mm KUN-LOK	8	2.86 (72.6)	0.46 (11.7)	1.74 (44.2)	1.13 (28.7)	1.13 (28.7)	1 1/8 (28.6)
□□2F8-M12-	12 mm KUN-LOK	12 mm KUN-LOK	8	3.04 (77.2)					
□□2F4-TS2-	1/4" TS	1/4" TS	4						
□□2F4-TS3-	3/8" TS	3/8" TS	4						
□□2F4-TB2-	1/4" TB	1/4" TB	4						
□□2F4-TB3-	3/8" TB	3/8" TB	4						
□□2F4-FN1-	1/8 Female NPT	1/8 Female NPT	4	2.00 (50.8)					
□□2F4-FN2-	1/4 Female NPT	1/4 Female NPT	4						
□□2F4-N2-	1/4 Male NPT	1/4 Male NPT	4						
□□2F8-N3-	3/8 Male NPT	3/8 Male NPT	8	2.38 (60.5)	0.46 (11.7)	1.74 (44.2)	1.13 (28.7)	1.13 (28.7)	1 1/8 (28.6)
□□2F8-N4-	1/2 Male NPT	1/2 Male NPT	8	2.75 (69.9)					
□□2F4-R2-	1/4 Male FR	1/4 Male FR	4	2.30 (58.4)	0.38 (9.7)	1.49 (37.8)	1.00 (25.4)	1.00 (25.4)	1 (25.4)
□□2F8-R4-	1/2 Male FR	1/2 Male FR	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)

Mounting holes not available with 1/4 female NPT end connections

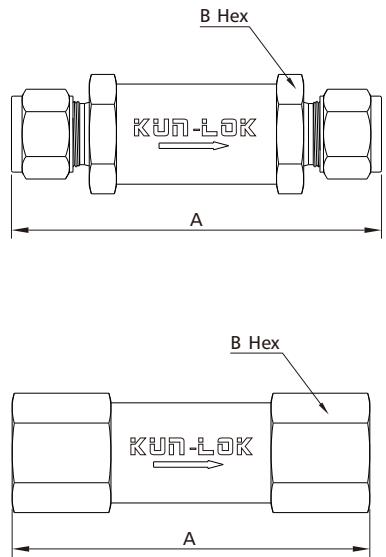
### 3F Series



Basic Ordering Number	Connection Type and Size		Element Series	Dimension, in. (mm)										
	Inlet	Outlet		A	B	C	ØD	E	F	Bypass Port End Connection				
□□3F4-F1-	1/8" KUN-LOK	1/8" KUN-LOK	4	2.27 (57.7)	0.38 (9.7)	1.98 (50.2)	1.00 (25.4)	1.00 (25.4)	1 (25.4)	FK2				
□□3F4-F2-	1/4" KUN-LOK	1/4" KUN-LOK		2.47 (62.7)		2.44 (61.9)								
□□3F8-F3-	3/8" KUN-LOK	3/8" KUN-LOK	8	2.84 (72.1)	0.46 (11.7)	2.74 (69.1)	1.13 (28.7)	1.13 (28.7)	1 1/8 (28.6)	FK6				
□□3F8-F4-	1/2" KUN-LOK	1/2" KUN-LOK		3.04 (77.2)		2.96 (74.2)								
□□3F4-M6-	6 mm KUN-LOK	6 mm KUN-LOK	4	2.46 (62.5)	0.38 (9.7)	2.44 (61.9)	1.00 (25.4)	1.00 (25.4)	1 (25.4)	FK4				
□□3F8-M8-	8 mm KUN-LOK	8 mm KUN-LOK	8	2.84 (72.1)	0.46 (11.7)	2.74 (69.1)	1.13 (28.7)	1.13 (28.7)	1 1/8 (28.6)	FK6				
□□3F8-M10-	10 mm KUN-LOK	10 mm KUN-LOK	8	2.86 (72.6)		2.96 (74.2)								
□□3F8-M12-	12 mm KUN-LOK	12 mm KUN-LOK	8	3.04 (77.2)										
□□3F4-TS2-	1/4" TS	1/4" TS	4	1.68 (42.7)	0.38 (9.7)	1.83 (56.4)	1.00 (25.4)	1.00 (25.4)	1 (25.4)	TB4				
□□3F4-TS3-	3/8" TS	3/8" TS	4											
□□3F4-TB2-	1/4" TB	1/4" TB	4											
□□3F4-TB3-	3/8" TB	3/8" TB	4											
□□3F4-FN1-	1/8 Female NPT	1/8 Female NPT	4	2.00 (50.8)	2.13 (54.1)	1.71 (43.4)	1.00 (25.4)	1.00 (25.4)	1 (25.4)	FNS2				
□□3F4-FN2-	1/4 Female NPT	1/4 Female NPT	4											
□□3F4-N2-	1/4 Male NPT	1/4 Male NPT	4											
□□3F8-N3-	3/8 Male NPT	3/8 Male NPT	8	2.38 (60.5)	0.46 (11.7)	2.00 (50.8)	1.13 (28.7)	1.13 (28.7)	1 1/8 (28.6)	FK4				
□□3F8-N4-	1/2 Male NPT	1/2 Male NPT	8	2.75 (69.9)										
□□3F4-R2-	1/4 Male FR	1/4 Male FR	4	2.38 (60.5)	0.38 (9.7)	2.44 (61.9)	1.00 (25.4)	1.00 (25.4)	1 (25.4)	FK4				
□□3F8-R4-	1/2 Male FR	1/2 Male FR	8	2.75 (69.9)	0.46 (11.7)	2.96 (74.2)	1.13 (28.7)	1.13 (28.7)	1 1/8 (28.6)	FK8				

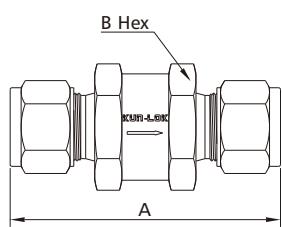
Mounting holes not available with 1/4 female NPT end connections

## 1F Series



Basic Ordering Number	Connection Type and Size		Element Series	Dimension, in. (mm)		
	Inlet	Outlet		A	B	
□□1F2-F1-	1/8" KUN-LOK	1/8" KUN-LOK	2	2.35 (59.7)	9/16 (14.3)	
□□1F4-F2-	1/4" KUN-LOK	1/4" KUN-LOK	4	2.95 (74.9)	3/4 (19.0)	
□□1F8-F3-	3/8" KUN-LOK	3/8" KUN-LOK	8	3.21 (81.5)	1 (25.4)	
□□1F8-F4-	1/2" KUN-LOK	1/2" KUN-LOK	8	3.49 (88.6)		
□□1F2-M3-	3 mm KUN-LOK	3 mm KUN-LOK	2	2.38 (60.5)	9/16 (14.3)	
□□1F4-M6-	6 mm KUN-LOK	6 mm KUN-LOK	4	2.96 (75.2)	3/4 (19.0)	
□□1F2-F1-	1/8 Female NPT	1/8 Female NPT	2	2.16 (54.9)	9/16 (14.3)	
□□1F4-F2-	1/4 Female NPT	1/4 Female NPT	4	2.87 (72.9)	3/4 (19.0)	
□□1F2-N1-	1/8 Male NPT	1/8 Male NPT	2	1.88 (47.7)	9/16 (14.3)	
□□1F4-N2-	1/4 Male NPT	1/4 Male NPT	4	2.69 (68.3)	3/4 (19.0)	
□□1F2-R1-	1/8 Male FR	1/8 Male FR	2	2.79 (70.8)		
□□1F4-R2-	1/4 Male FR	1/4 Male FR	4			
□□1F2-FR1-	1/8 Female BSPT	1/8 Female BSPT	2	2.16 (54.9)	9/16 (14.3)	
□□1F4-FR2	1/4 Female BSPT	1/4 Female BSPT	4	2.87 (72.9)	3/4 (19.0)	
□□1F2-R1-	1/8 Male BSPT	1/8 Male BSPT	2	1.88 (47.7)	9/16 (14.3)	
□□1F4-R2-	1/4 Male BSPT	1/4 Male BSPT	4	2.69 (68.3)	3/4 (19.0)	

## 4F Series



Basic Ordering Number	Connection Type and Size		Orifice in. (mm)	Dimension, in. (mm)	
	Inlet	Outlet		A	B
□□4F1-F2-	1/4" KUN-LOK	1/4" KUN-LOK	0.187(4.75)	2.15(54.6)	1 (25.4)
□□4F1-M6-	6 mm KUN-LOK	6 mm KUN-LOK			
□□4F1-FN2-	1/4 Female NPT	1/4 Female NPT		0.453(11.5)	
□□4F1-N2-	1/4 Male NPT	1/4 Male NPT		0.281(7.14)	
□□4F1-R2-	1/4 Male FR	1/4 Male FR		0.187(4.75)	

1. KUN-LOK means KUN-LOK double ferrule tube fittings, FR means metal gasket seal fittings, TS means fractional tube socket weld, TB means fractional tube butt weld.
2. Sizes and types listed are standard. Other sizes and types are available upon request.
3. Dimensions are shown with KUN-LOK nuts finger-tightened. All dimensions are for reference only and are subject to change. For dimensions not shown above, please contact the authorized representative or KUN-LOK

## Filters Ordering Information

S6-100-3F 4-F2-M6-F1

A Body Material	B Element Nominal Pore Size	C Valve Series	D Element Size	E Inlet Type	F Inlet Size	G Outlet Type	H Outlet Size	I Bypass Port (for 3F Series Only)
S6	05	3F	4	F	2	M	6	F2

A Body Material
S6 316 SS
6L 316L SS
S4 304 SS
4L 304L SS
S1 321 SS
B Brass
4L 304L SS
S1 321 SS
B Brass

B Element Nominal Pore Size
05 0.5 um
2 2 um
7 7 um
15 15 um
40 40 um
60 60 um
80 80 um
100 100 um
150 150 um
250 250 um
450 450 um

C Valve Series
1F In-line
2F T-type
3F Bypass
4F All-weld

D Element Size
2 2
4 4
8 8

E Inlet Type
FN Female NPT
N Male NPT
FR Female BSPT
R Male BSPT
FM Female ISO (for RP)
MS Male ISO (for RG)
FP Female BSPP (for RP)
BP Male BSPP (for RG)
F Fractional Tube Fitting
M Metric Tube Fitting
TS Fractional Tube Socket Weld
TB Fractional Tube Butt Weld
MFR Male FR Fitting

F Inlet Size
1 1/8 (in.)
2 1/4 (in.)
3 3/8 (in.) or 3 mm
4 1/2 (in.)
6 3/4 (in.) or 6 mm
8 1 (in.) or 8 mm
10 10 mm
12 12 mm
14 14 mm or M14 x 1.5
16 16 mm
18 18 mm
20 20 mm or M20 x 1.5
22 22 mm or M22 x 1.5
25 25 mm

G Outlet Type
Same as Inlet Specified in the same way as the inlet type

H Outlet Size
Same as Inlet Specified in the same way as the inlet type

I Bypass Port (for 3F Series Only)
Female NPT 1/8"
F1 Fractional Tube Fitting 1/8"
F2 Fractional Tube Fitting 1/4"
F3 Fractional Tube Fitting 3/8"
F4 Fractional Tube Fitting 1/2"

## Elements Ordering Information



S6 E SN 8 60

A Material	
S6	316 SS
6L	316L SS

C Element Type	
SN	Sintered
ST	Strainer

E Element Nominal Pore Size	
05	0.5 µm
2	2 µm
7	7 µm
15	15 µm
40	40 µm
60	60 µm
80	80 µm
100	100 µm
150	150 µm
250	250 µm
450	450 µm

B Element	
E	Element

D Element Series	
Standard with 2 (only for sintered)	
4	4
8	8

KUN-LOK Fluid Technology (Shanghai) Co.,Ltd  
冠昆流体科技(上海)有限公司

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