Check Valves

CV, CH, CO, CA, COA, CL and CW Series

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FITOK
Valves and Fittings

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Features

CV, CH and CO Series

Fixed Cracking Pressures

CV Series

- Resilient O-ring seat design for leak free sealing
- Maximum working pressure: 3000 psig (207 bar)
- Working temperature: -10 °F to 375°F (-23°C to 190°C)
- Cracking pressure: 1/3 to 25 psig (0.02 to 1.7 bar)
- Variety of end connections and materials available

CH Series

- Seat ring continuously cleaned by media, avoiding secondary pollution
- Maximum working pressure: 6000 psig (414 bar)
- Working temperature: -10°F to 400°F (-23°C to 204°C)
- Cracking pressure: 1/3 to 25 psig (0.02 to 1.7 bar)
- Variety of end connections and materials available

CO Series

- Compact, one piece body
- Maximum working pressure: 3000 psig (207 bar)
- Working temperature: -10°F to 375°F (-23°C to 190°C)
- Cracking pressure: 1/3 to 25 psig (0.02 to 1.7 bar)
- Variety of end connections and materials available

CA and COA Series

Adjustable Cracking Pressures, Variety of Springs Available

CA Series

- Maximum working pressure: 3000 psig (207 bar)
- Working temperature: -10°F to 375°F (-23°C to 190°C)
- Cracking pressure: 3 to 600 psig (0.2 to 41.4 bar)
- Variety of end connections and materials available

COA Series

- Compact, one-piece body
- Maximum working pressure: 3000 psig (207 bar)
- Working temperature: -10°F to 375°F (-23°C to 190°C)
- Cracking pressure: 3 to 600 psig (0.2 to 41.4 bar)
- Variety of end connections and materials available

CL Series

- Maximum working pressure: 6000 psig (414 bar)
- Working temperature: -65°F to 900°F (-53°C to 482°C)
- Variety of end connections and materials available
- Union bonnet design, all-stainless steel structure, horizontal installation with bonnet nut on top

CW Series

- Maximum working pressure: 3000 psig (207 bar)
- Working temperature: -10°F to 400°F (-23°C to 204°C)
- Cracking pressure: less than 2 psig (0.14 bar)
- Variety of end connections and materials available
- All-welded design for safety

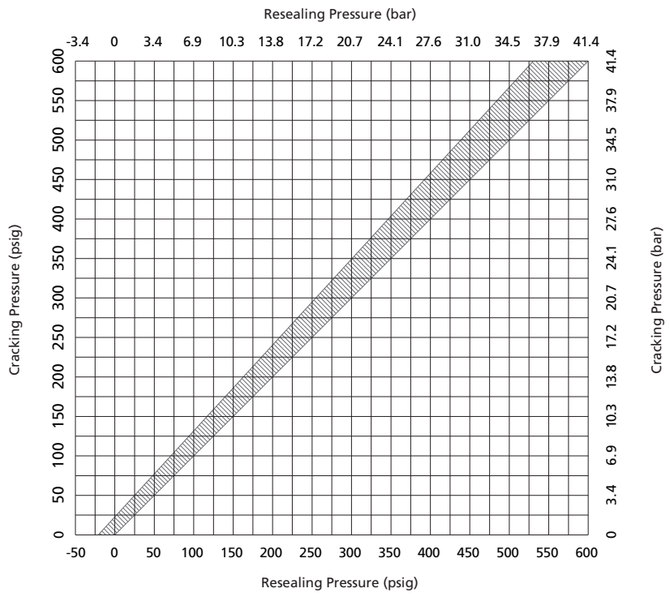
1. All valves use silicone-based and molybdenum disulfide-based lubricant.
2. Contact the authorized representative or FITOK Group for other materials.
3. Springs with PTFE coating are available for CV, CH, CO, CA and COA series valves.
4. Every valve is tested with nitrogen for leak-tight performance at its maximum working pressure.

Cracking Pressure and Resealing Pressure

Series	Nominal Cracking Pressure psig (bar)	Cracking Pressure Range psig (bar)	Resealing Pressure Range psig (bar)
CV	1/3 (0.02) 1 (0.06) 3 (0.21) 10 (0.68) 25 (1.7)	0 to 3 (0 to 0.21) 0 to 4 (0 to 0.28) 1 to 5 (0.06 to 0.34) 7 to 15 (0.49 to 1.1) 20 to 30 (1.4 to 2.1)	Up to 6 (0.42) downstream pressure Up to 6 (0.42) downstream pressure Up to 6 (0.42) downstream pressure 3 (0.21) or higher upstream pressure 17 (1.2) or higher upstream pressure
CH	1/3 (0.02) 1 (0.06) 3 (0.21) 10 (0.68) 25 (1.7)	0 to 3 (0 to 0.21) 0 to 4 (0 to 0.28) 1 to 5 (0.06 to 0.34) 7 to 15 (0.49 to 1.1) 20 to 30 (1.4 to 2.1)	Up to 6 (0.42) downstream pressure Up to 5 (0.35) downstream pressure Up to 2 (0.14) downstream pressure 3 (0.21) or higher upstream pressure 17 (1.2) or higher upstream pressure
CO	1/3 (0.02) 1 (0.06) 3 (0.21) 10 (0.68) 25 (1.7)	0 to 3 (0 to 0.21) 0 to 4 (0 to 0.28) 1 to 5 (0.06 to 0.34) 7 to 13 (0.49 to 0.9) 20 to 30 (1.4 to 2.1)	6 to 20 (0.42 to 1.4) downstream pressure 5 to 20 (0.35 to 1.4) downstream pressure 3 to 20 (0.21 to 1.4) downstream pressure 3 to 10 (0.21 to 0.68) downstream pressure 5 (0.35) or higher upstream pressure
CA COA	3 to 50 (0.21 to 3.4) 50 to 150 (3.4 to 10.3) 150 to 350 (10.3 to 24.1) 350 to 600 (24.1 to 41.3)	————	Refer to the chart below
CL	————	0 to 4 (0 to 0.28)	Up to 6 (0.42) downstream pressure
CW	————	0 to 2 (0 to 0.14)	2 (0.14) or higher upstream pressure

Cracking Pressure and Resealing Pressure

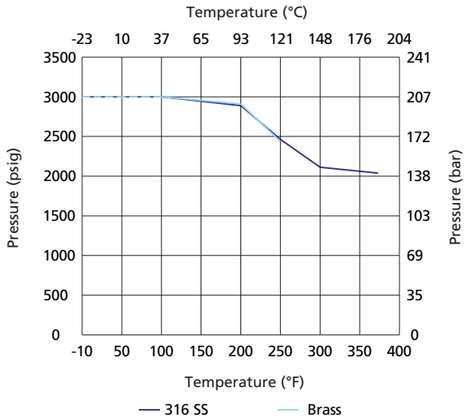
CA and COA Series



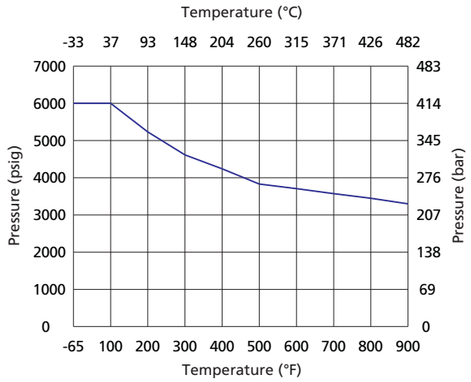
FITOK

Pressure vs. Temperature

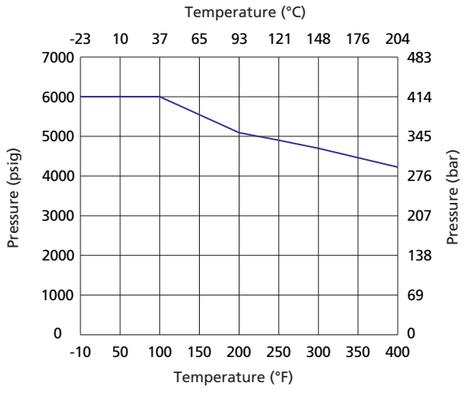
CV, CO, CA and COA Series
FKM Seat in 316 SS Body and Buna N in Brass Body



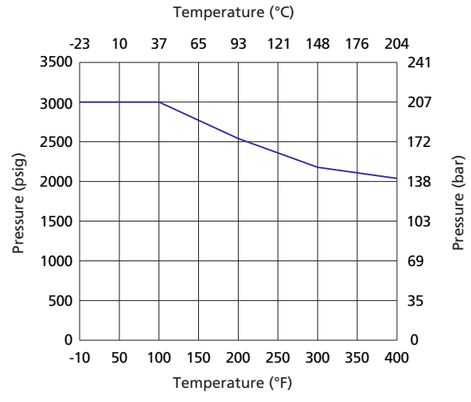
CL Series



CH Series
FKM Seat in 316 SS Body



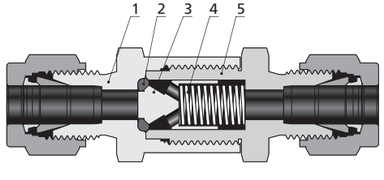
CW Series
FKM Seat in 316 SS Body



Contact the authorized representative or FITOK Group for curve graph of other materials

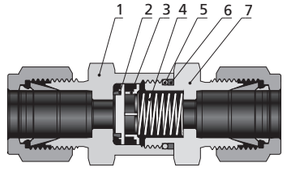
Standard Materials of Construction

CV Series



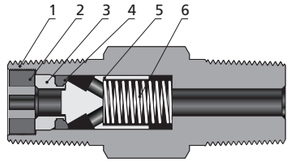
Component		Valve Material Grade/ASTM Specification	
		316 SS	Brass
1	Inlet Body	316 SS/A479	Brass C36000/B16
2	O-ring	Fluorocarbon FKM	Buna N
3	Poppet	316 SS/A479	Brass C36000/B16
4	Spring	302 SS/A313	302 SS/A313
5	Outlet Body	316 SS/A479	Brass C36000/B16

CH Series



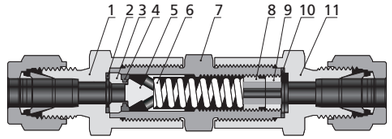
Component		Valve Material Grade/ASTM Specification
1	Inlet Body	316 SS/A479
2	Poppet	Fluorocarbon FKM - bonded 316 SS/A479
3	Poppet Stop	316 SS/A240
4	Spring	302 SS/A313
5	O-ring	Fluorocarbon FKM
6	Backup Ring	PTFE/D1710
7	Outlet Body	316 SS/A479

CO Series



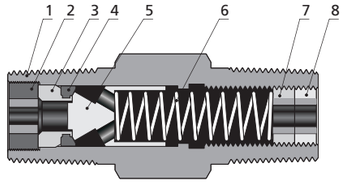
Component		Valve Material Grade/ASTM Specification	
		316 SS	Brass
1	Body	316 SS/A479	Brass C36000/B16
2	Insert Locking Screw	316 SS/A276 or A479	Brass C36000/B16
3	Insert	316 SS/A479	Brass C36000/B16
4	O-ring	Fluorocarbon FKM	Buna N
5	Poppet	316 SS/A479	Brass C36000/B16
6	Spring	302 SS/A313	302 SS/A313

CA Series



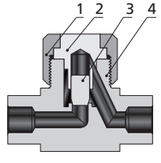
Component		Valve Material Grade/ASTM Specification	
		316 SS	Brass
1	Inlet Body	316 SS/A479	Brass C36000/B16
2	Inlet Gasket	PTFE-coated 316 SS/A240	PTFE-coated 316 SS/A240
3	Insert	316 SS/A479	Brass C36000/B16
4	O-ring	Fluorocarbon FKM	Buna N
5	Poppet	316 SS/A479	Brass C36000/B16
6	Spring	302 SS/A313	302 SS/A313
7	Center Body	316 SS/A479	Brass C36000/B16
8	Adjusting Screw	316 SS/A276	316 SS/A276
9	Locking Screw	316 SS/A276	316 SS/A276
10	Outlet Gasket	PTFE-coated 316 SS/A240	PTFE-coated 316 SS/A240
11	Outlet Body	316 SS/A479	Brass C36000/B16

COA Series



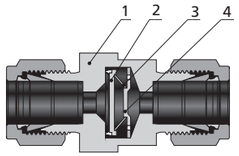
Component		Valve Material Grade/ASTM Specification	
		316 SS	Brass
1	Body	316 SS/A479	Brass C36000/B16
2	Insert Locking Screw	316 SS/A479	Brass C36000/B16
3	Insert	316 SS/A479	Brass C36000/B16
4	O-ring	Fluorocarbon FKM	Buna N
5	Poppet	316 SS/A479	Brass C36000/B16
6	Spring	302 SS/A313	302 SS/A313
7	Adjusting Screw	316 SS/A276	316 SS/A276
8	Locking Screw	316 SS/A276	316 SS/A276

CL Series



Component		Valve Material Grade/ASTM Specification
1	Bonnet Nut	316 SS/A479
2	Bonnet	316 SS/A479
3	Poppet	S17400/A564
4	Body	316 SS/A479

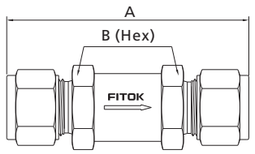
CW Series



Component		Valve Material Grade/ASTM Specification
1	Body	316L SS/A479
2	Poppet	Fluorocarbon FKM - bonded 316 SS/A479
3	Guidance Wafer	Alloy X - 750/B637
4	Poppet Stop	316L SS/A240

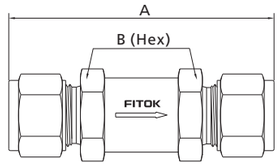
Dimensions

CV Series



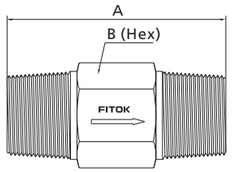
Basic Ordering Number	Connection Type and Size		Cv	Body Size	Dimension, in. (mm)	
	Inlet	Outlet			A	B
CV□□-FL2-	1/8" FITOK	1/8" FITOK	0.10	4	2.14 (54.3)	5/8 (15.88)
CV□□-FL4-	1/4" FITOK	1/4" FITOK	0.47	4	2.35 (59.7)	
CV□□-FL6-	3/8" FITOK	3/8" FITOK	1.47	8	3.17 (80.5)	7/8 (22.23)
CV□□-FL8-	1/2" FITOK	1/2" FITOK	1.68	8	3.42 (86.9)	
CV□□-FL12-	3/4" FITOK	3/4" FITOK	4.48	12	4.32 (110)	1 1/4 (31.75)
CV□□-FL16-	1" FITOK	1" FITOK		12	4.74 (120)	1 3/8 (34.93)
CV□□-ML6-	6 mm FITOK	6 mm FITOK	0.47	4	2.36 (59.9)	5/8 (15.88)
CV□□-ML10-	10 mm FITOK	10 mm FITOK	1.68	8	3.32 (84.3)	7/8 (22.23)
CV□□-ML12-	12 mm FITOK	12 mm FITOK		8	3.42 (86.9)	
CV□□-FNS2-	1/8 Female NPT	1/8 Female NPT	0.10	4	1.89 (48.0)	5/8 (15.88)
CV□□-FNS4-	1/4 Female NPT	1/4 Female NPT	0.47	4	2.15 (54.6)	3/4 (19.05)
CV□□-FNS6-	3/8 Female NPT	3/8 Female NPT	1.47	8	2.98 (75.7)	7/8 (22.23)
CV□□-FNS8-	1/2 Female NPT	1/2 Female NPT	1.68	8	3.58 (90.9)	1 1/16 (26.99)
CV□□-FNS12-	3/4 Female NPT	3/4 Female NPT	4.48	12	4.08 (104)	1 1/4 (31.75)
CV□□-FNS16-	1 Female NPT	1 Female NPT		12	4.84 (123)	1 5/8 (41.28)
CV□□-NS2-	1/8 Male NPT	1/8 Male NPT	0.10	4	1.71 (43.4)	5/8 (15.88)
CV□□-NS4-	1/4 Male NPT	1/4 Male NPT	0.47	4	2.09 (53.1)	
CV□□-Ns6-	3/8 Male NPT	3/8 Male NPT	1.47	8	2.78 (70.6)	7/8 (22.23)
CV□□-NS8-	1/2 Male NPT	1/2 Male NPT	1.68	8	3.16 (80.3)	
CV□□-NS12-	3/4 Male NPT	3/4 Male NPT	4.48	12	4.08 (104)	1 1/4 (31.75)
CV□□-NS16-	1 Male NPT	1 Male NPT		12	4.52 (115)	1 5/8 (41.28)
CV□□-FR4-	1/4" Male FR	1/4" Male FR	0.47	4	2.21 (56.1)	5/8 (15.88)
CV□□-FR8-	1/2" Male FR	1/2" Male FR	1.68	8	3.56 (90.4)	15/16 (23.81)
CV□□-FR12-	3/4" Male FR	3/4" Male FR	4.48	12	4.64 (118)	1 5/8 (41.28)
CV□□-FR16-	1" Male FR	1" Male FR		12	4.76 (121)	

CH Series



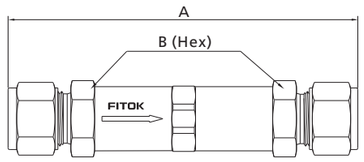
Basic Ordering Number	Connection Type and Size		Pressure Rating at 100° F (37° C) psig (bar)	Cv	Body Size	Dimension, in. (mm)	
	Inlet	Outlet				A	B
CH□□-FL2-	1/8" FITOK	1/8" FITOK	414 (6000)	0.67	4	2.27 (57.7)	11/16 (17.46)
CH□□-FL4-	1/4" FITOK	1/4" FITOK			4	2.43 (61.7)	
CH□□-FL6-	3/8" FITOK	3/8" FITOK		1.8	8	2.75 (69.9)	1 (25.4)
CH□□-FL8-	1/2" FITOK	1/2" FITOK			8	2.96 (75.2)	
CH□□-FL12-	3/4" FITOK	3/4" FITOK	344 (5000)	4.7	16	3.52 (89.4)	1 5/8 (41.28)
CH□□-FL16-	1" FITOK	1" FITOK	323 (4700)		16	3.88 (98.6)	
CH□□-ML6-	6 mm FITOK	6 mm FITOK	414 (6000)	0.67	4	2.43 (61.7)	11/16 (17.46)
CH□□-ML8-	8 mm FITOK	8 mm FITOK		1.8	8	2.70 (68.6)	
CH□□-ML10-	10 mm FITOK	10 mm FITOK			8	2.80 (71.1)	1 (25.4)
CH□□-ML12-	12 mm FITOK	12 mm FITOK			8	2.96 (75.2)	
CH□□-ML22-	22 mm FITOK	22 mm FITOK	337 (4900)	4.7	16	3.48 (88.4)	1 5/8 (41.28)
CH□□-ML25-	25 mm FITOK	25 mm FITOK	316 (4600)		16	3.88 (98.6)	
CH□□-FNS4-	1/4 Female NPT	1/4 Female NPT	414 (6000)	0.67	4	2.13 (54.1)	11/16 (17.46)
CH□□-FNS6-	3/8 Female NPT	3/8 Female NPT	365 (5300)	1.8	8	2.55 (64.8)	1(25.4)
CH□□-FNS8-	1/2 Female NPT	1/2 Female NPT	337 (4900)		8	3.03 (77.0)	1 1/16 (26.99)
CH□□-FNS12-	3/4 Female NPT	3/4 Female NPT	316 (4600)	4.7	16	3.23 (82.0)	1 5/8 (41.28)
CH□□-FNS16-	1 Female NPT	1 Female NPT	303 (4400)		16	3.83 (97.3)	
CH□□-NS2-	1/8 Male NPT	1/8 Male NPT	414 (6000)	0.67	4	1.79 (45.4)	11/16 (17.46)
CH□□-NS4-	1/4 Male NPT	1/4 Male NPT			4	2.17 (55.1)	
CH□□-NS6-	3/8 Male NPT	3/8 Male NPT		1.8	8	2.36 (59.9)	1 (25.4)
CH□□-NS8-	1/2 Male NPT	1/2 Male NPT			8	2.73 (69.3)	
CH□□-NS12-	3/4 Male NPT	3/4 Male NPT	344 (5000)	4.7	16	3.29 (83.6)	1 5/8 (41.28)
CH□□-NS16-	1 Male NPT	1 Male NPT			16	3.67 (93.2)	
CH□□-FRT4-	1/4 Female BSPT	1/4 Female BSPT	414 (6000)	0.67	4	2.28 (57.9)	11/16 (17.46)
CH□□-FRT8-	1/2 Female BSPT	1/2 Female BSPT	351 (5100)	1.8	8	3.29 (83.6)	1 1/16 (26.99)
CH□□-FRT12-	3/4 Female BSPT	3/4 Female BSPT	330 (4800)	4.7	16	3.55 (90.2)	1 5/8 (41.28)
CH□□-FRT16-	1 Female BSPT	1 Female BSPT	303 (4400)		16	3.83 (97.3)	
CH□□-RT4-	1/4 Male BSPT	1/4 Male BSPT	414 (6000)	0.67	4	2.17 (55.1)	11/16 (17.46)
CH□□-RT8-	1/2 Male BSPT	1/2 Male BSPT		1.8	8	2.73 (69.3)	1 (25.4)
CH□□-RT12-	3/4 Male BSPT	3/4 Male BSPT	344 (5000)	4.7	16	3.35 (85.1)	1 5/8 (41.28)
CH□□-RT16-	1 Male BSPT	1 Male BSPT			16	3.67 (93.2)	
CH□□-FR4-	1/4" Male FR	1/4" Male FR	414 (6000)	0.67	4	2.28 (57.9)	11/16 (17.46)
CH□□-FR8-	1/2" Male FR	1/2" Male FR	296 (4300)	1.8	8	2.73 (69.3)	1 (25.4)
CH□□-FR12-	3/4" Male FR	3/4" Male FR	254 (3700)	4.7	16	3.78 (96.0)	1 5/8 (41.28)
CH□□-FO4-	1/4" Male FO	1/4" Male FO	414 (6000)	0.67	4	1.98 (50.3)	11/16 (17.46)
CH□□-FO8-	1/2" Male FO	1/2" Male FO		1.8	8	2.35 (59.7)	1 (25.4)
CH□□-FO12-	3/4" Male FO	3/4" Male FO	344 (5000)	4.7	16	2.90 (73.7)	1 5/8 (41.28)
CH□□-FO16-	1" Male FO	1" Male FO			16		

CO Series



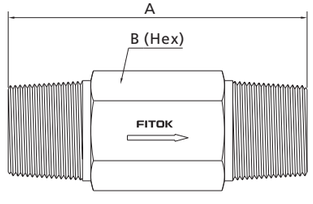
Basic Ordering Number	Connection Type and Size		Cv	Body Size	Dimension, in. (mm)	
	Inlet	Outlet			A	B
CO□□-FNS4-	1/4 Female NPT	1/4 Female NPT	0.35	4	2.41 (61.2)	3/4 (19.05)
CO□□-FNS8-	1/2 Female NPT	1/2 Female NPT	1.20	8	3.71 (94.2)	1 1/16 (26.99)
CO□□-NS4-	1/4 Male NPT	1/4 Male NPT	0.35	4	1.62 (41.1)	9/16 (14.29)
CO□□-NS8-	1/2 Male NPT	1/2 Male NPT	1.20	8	2.28 (57.9)	7/8 (22.23)
CO□□-FRT4-	1/4 Female BSPT	1/4 Female BSPT	0.35	4	2.54 (64.5)	3/4 (19.05)
CO□□-RT4-	1/4 Male BSPT	1/4 Male BSPT			1.62 (41.1)	9/16 (14.29)

CA Series



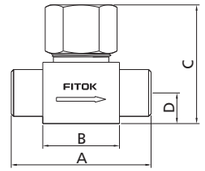
Basic Ordering Number	Connection Type and Size		Cv	Body Size	Dimension, in. (mm)	
	Inlet	Outlet			A	B
CA□□-FL4-	1/4" FITOK	1/4" FITOK	0.37	4	3.23 (82.0)	5/8 (15.88)
CA□□-ML6-	6 mm FITOK	6 mm FITOK				
CA□□-ML8-	8 mm FITOK	8 mm FITOK			3.32 (84.3)	
CA□□-FR4-	1/4" Male FR	1/4" Male FR			3.09 (78.5)	

COA Series



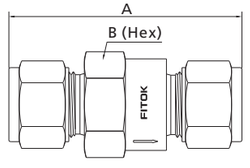
Basic Ordering Number	Connection Type and Size		Cv	Body Size	Dimension, in. (mm)	
	Inlet	Outlet			A	B
COA□□-FNS4-	1/4 Female NPT	1/4 Female NPT	0.35	4	2.98 (75.7)	3/4 (19.05)
COA□□-NS4-	1/4 Male NPT	1/4 Male NPT	0.35	4	1.62 (41.1)	9/16 (14.29)
COA□□-NS8-	1/2 Male NPT	1/2 Male NPT	1.20	8	2.56 (65.0)	7/8 (22.23)
COA□□-RT4-	1/4 Male BSPT	1/4 Male BSPT	0.35	4	1.62 (41.1)	9/16 (14.29)
COA□□-RT8-	1/2 Male BSPT	1/2 Male BSPT	1.20	8	2.56 (65.0)	7/8 (22.23)

CL Series



Basic Ordering Number	Connection Type and Size		Cv	Dimension, in. (mm)			
	Inlet	Outlet		A	B	C	D
CL□□-FL4	1/4" FITOK	1/4" FITOK	0.30	2.40 (61.0)	1.01 (25.7)	1.47 (37.3)	0.39 (9.9)
CL□□-FL6	3/8" FITOK	3/8" FITOK	0.64	2.83 (71.9)	1.31 (33.3)	1.85 (47.0)	0.50 (12.7)
CL□□-FL8	1/2" FITOK	1/2" FITOK	2.20	3.92 (99.6)	2.19 (55.6)	2.44 (62.0)	0.62 (15.7)
CL□□-Fl12	3/4" FITOK	3/4" FITOK					
CL□□-ML6	6 mm FITOK	6 mm FITOK	0.30	2.40 (61.0)	1.01 (25.7)	1.47 (37.3)	0.39 (9.9)
CL□□-FNS2	1/8 Female NPT	1/8 Female NPT		2.00 (50.8)	1.0 (25.4)	1.47 (37.3)	0.39 (9.9)
CL□□-FNS4	1/4 Female NPT	1/4 Female NPT	0.64	2.25 (57.2)	1.25 (31.8)	1.85 (47.0)	0.50 (12.7)
CL□□-FNS6	3/8 Female NPT	3/8 Female NPT	2.20	3.12 (79.2)	1.86 (47.2)	2.44 (62.0)	0.62 (15.7)
CL□□-FNS8	1/2 Female NPT	1/2 Female NPT					
CL□□-TS4	1/4" TS	1/4" TS	0.30	1.81 (46.0)	0.9 (22.9)	1.47 (37.3)	0.39 (9.9)
CL□□-TS6	3/8" TS	3/8" TS	0.64	2.25 (57.2)	1.25 (31.8)	1.85 (47.0)	0.50 (12.7)
CL□□-TS8	1/2" TS	1/2" TS	2.20	3.13 (79.5)	1.88 (47.8)	2.44 (47.0)	0.62 (15.7)
CL□□-PB4	1/4 PB	1/4 PB	0.30	1.81 (46.0)	0.9 (22.9)	1.47 (37.3)	0.39 (9.9)
CL□□-PB6	3/8 PB	3/8 PB	0.64	2.25 (57.2)	1.25 (31.8)	1.85 (47.0)	0.50 (12.7)
CL□□-PB8	1/2 PB	1/2 PB	2.20	3.13 (79.5)	1.88 (47.8)	2.44 (62.0)	0.62 (15.7)

CW Series



Basic Ordering Number	Connection Type and Size		Cv	Dimension, in. (mm)	
	Inlet	Outlet		A	B
CW□□-TB4	1/4" TB	1/4" TB	0.55	1.24 (31.5)	7/8 (22.23)
CW□□-TB6	3/8" TB	3/8" TB	0.70		
CW□□-TB8	1/2" TB	1/2" TB			
CW□□-MTB6	6 mm MTB	6 mm MTB	0.55		
CW□□-FR4	1/4" Male FR	1/4" Male FR	0.70	1.80 (45.7)	
CW□□-FR8	1/2" Male FR	1/2" Male FR	0.70	2.06 (52.3)	1 (25.4)
CW□□-FL4	1/4" FITOK	1/4" FITOK	0.55	1.96 (49.8)	7/8 (22.23)
CW□□-ML6	6 mm FITOK	6 mm FITOK	0.55		

1. FITOK means FITOK double ferrule tube fittings, FO means O-ring seal fittings, FR means metal gasket seal fittings, TB means fractional tube butt weld, MTB means metric tube butt weld, TS means fractional tube socket weld, PB means pipe butt weld.

2. Sizes and types listed are standard. Other sizes and types are available upon request. For special sizes and types, refer to ordering information.

3. Dimensions shown with FITOK nuts finger-tightened. All dimensions are for reference only and are subject to change. For dimensions not shown above, contact the authorized representative or FITOK Group.

Flow Data at 70°F (20°C)

CV Series

Air Flow (std L/min) / Inlet Pressure (psig)	Cracking Pressure (psig)					
	1	10	25	1	10	25
	Cv = 0.10			Cv = 0.47		
5	10	--	--	114	--	--
10	29	--	--	157	36	--
12.5	38	11	--	176	150	--
15	48	23	--	196	170	--
25	72	62	2	253	--	18
30	78	--	17	279	--	146
35	85	--	34	309	--	330
50	103	--	77	402	--	--
80	144	--	136	580	--	--
100	171	--	160	700	--	--

Water Flow (L/min) / Pressure Drop (psig)	Cracking Pressure (psig)					
	1	10	25	1	10	25
	Cv = 0.10			Cv = 0.47		
5	0.3	--	--	2.1	--	--
10	1.2	--	--	6.1	--	--
12.5	1.4	0.3	--	6.5	6.5	--
15	1.6	0.7	--	6.9	6.9	--
20	1.9	1.2	--	7.8	7.8	--
27.5	2.3	1.7	0.2	--	--	1.2
35	2.6	2.3	0.9	--	--	5.0
40	2.8	2.4	1.3	--	--	7.5
70	3.6	3.5	3.3	--	--	--
80	3.8	3.8	3.8	--	--	--

Air Flow (std L/min) / Inlet Pressure (psig)	Cracking Pressure (psig)					
	1	10	25	1	10	25
	Cv = 1.47			Cv = 1.68		
5	325	--	--	460	--	--
10	623	--	--	747	--	--
15	832	377	--	916	475	--
25	1146	800	32	1255	939	40
35	1440	1150	509	1594	1347	654
50	1879	1686	1072	2101	1960	1230
80	2761	2756	2087	--	--	2400
100	--	--	2763	--	--	--

Water Flow (L/min) / Pressure Drop (psig)	Cracking Pressure (psig)					
	1	10	25	1	10	25
	Cv = 1.47			Cv = 1.68		
2.5	4.6	--	--	7.4	--	--
5	8.3	--	--	13.5	--	--
10	17.5	--	--	22.6	--	--
11	--	3.3	--	--	6.8	--
12.5	--	7.7	--	--	12.9	--
15	--	13.1	--	--	20.0	--
20	--	20.0	--	--	--	--
27.5	--	--	2.2	--	--	7.3
30	--	--	4.4	--	--	12
35	--	--	8.8	--	--	19.5

Air Flow (std L/min) / Inlet Pressure (psig)	Cracking Pressure (psig)		
	1	10	25
	Cv = 4.48		
5	468	--	--
10	975	--	--
15	1208	491	--
20	1435	945	--
25	1658	1232	--
35	2122	1826	1059
50	2800	2678	1905
60	--	--	2454

Water Flow (L/min) / Pressure Drop (psig)	Cracking Pressure (psig)		
	1	10	25
	Cv = 4.48		
2.5	29.5	--	--
5	45.0	--	--
10	59.3	--	--
12.5	65.8	65.8	--
15	72.3	72.3	--
20	85.4	85.4	--
25.5	--	--	22
26	--	--	48
27	--	--	90

CH Series

Air Flow (std L/min) / Inlet Pressure (psig)	Cracking Pressure (psig)		
	1	10	25
	Cv = 0.67		
5	8	--	--
10	80	--	--
25	160	200	--
40	180	200	--
60	600	390	180
80	900	880	640
95	1200	1060	830
110	--	1240	1020
128	--	1400	1200
140	--	--	1340

Water Flow (L/min) / Pressure Drop (psig)	Cracking Pressure (psig)		
	1	10	25
	Cv = 0.67		
1	0.2	--	--
6	1.9	--	--
10	5.7	--	--
12	7.5	0.2	--
20	--	1.4	--
26	--	2.9	--
36	--	7.5	0.9
50	--	--	3.4
60	--	--	5.6
68	--	--	7.5

Air Flow (std L/min) / Inlet Pressure (psig)	Cracking Pressure (psig)		
	1	10	25
	Cv = 1.8		
2	--	--	--
10	620	--	--
25	1140	520	--
30	1320	720	190
40	1620	1130	590
50	1940	1520	1000
60	2250	1900	1400
78	2800	2520	2080
86	--	2800	2430
97	--	--	2800

Water Flow (L/min) / Pressure Drop (psig)	Cracking Pressure (psig)		
	1	10	25
	Cv = 1.8		
1.5	--	--	--
5.0	14.4	--	--
7.5	20.4	--	--
10.0	22.5	--	--
15	--	2.0	--
20	--	7.0	--
22	--	22.5	--
30	--	--	0.7
40	--	--	2.6
45	--	--	22.5

Air Flow (std L/min) / Inlet Pressure (psig)	Cracking Pressure (psig)		
	1	10	25
	Cv = 4.7		
5	520	--	--
10	940	--	--
15	1240	540	--
20	1560	880	--
25	1620	1100	--
30	1800	1325	420
35	2080	1520	720
40	2800	1760	980
50	2280	2240	1800
60	2560	2650	2280

Water Flow (L/min) / Pressure Drop (psig)	Cracking Pressure (psig)		
	1	10	25
	Cv = 4.7		
2.5	32	--	--
5.0	48	--	--
7.5	58	--	--
10.0	68	--	--
11.0	75	10	--
12.0	86	75	--
30.0	--	--	8
32.5	--	--	13
35.0	--	--	21
38.0	--	--	86

CO Series

Air Flow (std L/min) / Inlet Pressure (psig)	Cracking Pressure (psig)		
	1	10	25
	Cv = 0.35		
12.5	85	--	--
25	201	121	--
50	400	327	212
75	600	539	431
100	800	750	653
112.5	--	--	750

Water Flow (L/min) / Pressure Drop (psig)	Cracking Pressure (psig)		
	1	10	25
	Cv = 0.35		
7.5	2.6	--	--
15	5.3	0.9	--
22.5	7.7	2.9	--
30	--	5	0.6
60	--	--	3.7
90	--	--	6.7

Air Flow (std L/min) / Inlet Pressure (psig)	Cracking Pressure (psig)		
	1	10	25
	Cv = 1.2		
10	366	--	--
20	679	325	--
30	1027	706	237
40	1351	1064	664
50	1692	1433	1122
60	2924	1814	1561

Water Flow (L/min) / Pressure Drop (psig)	Cracking Pressure (psig)		
	1	10	25
	Cv = 1.2		
5	10.3	--	--
7.5	14.1	--	--
10	17.3	--	--
15	--	2.3	--
30	--	13.2	1.0
37.5	--	17.8	2.6
75	--	--	9.8

CA Series

Air Flow (std L/min) / Inlet Pressure (psig)	Cracking Pressure (psig)			
	3	50	150	350
	Cv = 0.37			
50	459	35	--	--
150	1424	851	40	--
250	2182	1769	440	--
350	--	2800	914	--
400	--	--	1173	303
500	--	--	1785	914
600	--	--	2583	1512
700	--	--	--	2121

Water Flow (L/min) / Pressure Drop (psig)	Cracking Pressure (psig)			
	3	50	150	350
	Cv = 0.37			
12.5	1.7	--	--	--
25	4.3	--	--	--
37.5	6.6	--	--	--
75	--	1.9	--	--
150	--	6.4	--	--
175	--	7.6	0.8	--
250	--	--	3.8	--
350	--	--	8.0	--
400	--	--	--	1.8
500	--	--	--	5.1
550	--	--	--	6.7

CL Series

Air Flow (std L/min) / Inlet Pressure (psig)	Cv = 0.30	Cv = 0.64	Cv = 2.20
0.2	10	32	96
2	37	91	350
20	146	461	1040
100	525	1404	3523
200	800	2508	5485
400	1495	4246	--
600	2197	5353	--
1000	3842	--	--

Water Flow (L/min) / Pressure Drop (psig)	Cv = 0.30	Cv = 0.64	Cv = 2.20
0.2	0.5	1.3	3.8
2	1.6	4.0	13.2
20	5.1	13.3	38.2
100	11.7	28.9	85.3
200	16.8	38.5	--
400	23.0	53.6	--
600	29.1	67.0	--
1000	34.5	81.8	--

COA Series

Air Flow (std L/min) / Inlet Pressure (psig)	Cracking Pressure (psig)			
	3	50	150	350
	Cv = 0.35			
50	323	--	--	--
150	1165	841	--	--
250	2039	1769	615	--
300	2425	2800	890	--
400	--	--	1502	246
500	--	--	2098	726
600	--	--	2692	1207
700	--	--	--	1700

Water Flow (L/min) / Pressure Drop (psig)	Cracking Pressure (psig)			
	3	50	150	350
	Cv = 0.35			
12.5	1.5	--	--	--
25	4.1	--	--	--
37.5	6.4	--	--	--
75	--	1.8	--	--
150	--	6.3	--	--
175	--	7.5	1.1	--
250	--	--	4.5	--
350	--	--	8.6	--
400	--	--	--	1.8
500	--	--	--	5.1
550	--	--	--	6.7

Air Flow (std L/min) / Inlet Pressure (psig)	Cracking Pressure (psig)			
	3	50	150	350
	Cv = 1.2			
25	498	--	--	--
50	1553	--	--	--
75	2162	615	--	--
125	--	1682	--	--
175	--	2758	763	--
250	--	--	1859	--
300	--	--	2634	--
350	--	--	--	155
400	--	--	--	1665
450	--	--	--	2382

Water Flow (L/min) / Pressure Drop (psig)	Cracking Pressure (psig)			
	3	50	150	350
	Cv = 1.2			
12.5	3.0	--	--	--
25	9.3	--	--	--
37.5	15.2	--	--	--
75	--	5.3	--	--
150	--	17.6	--	--
175	--	21.4	2.5	--
250	--	--	10.3	--
350	--	--	20.2	--
400	--	--	--	4.4
500	--	--	--	13.3
550	--	--	--	21.5

CW Series

Air Flow (std L/min) / Inlet Pressure (psig)	Cv = 0.55	Cv = 0.70
0.1	9.5	27
0.2	14	34
0.4	20	50
0.6	26	64
1.0	35	85
2	56	130
4	86	190
6	140	470
10	170	590
50	450	1040

Water Flow (L/min) / Pressure Drop (psig)	Cv = 0.55	Cv = 0.70
0.1	0.66	1.2
0.2	0.88	1.5
0.4	1.3	2.1
0.6	1.6	2.6
1.0	2	3.4
2	3	4.6
4	4	6.5
6	5.1	7.9
10	6.5	11
50	15	24

Part Number Description

CVSS – FL8 – ML10 – B – 2SF2

Series	Body Material	Inlet Type	Inlet Size	Outlet Type	Outlet Size	Seal Material	Cracking Pressure	Special Application	Cleaning and Packaging
CV	SS 316 SS	FNS Female NPT	2 1/8"	Same as Inlet		Fluorocarbon FKM	3 psig	NO	FC-01
CH	6L 316L SS	NS Male NPT	4 1/4"	Specified in the same way as the inlet type and size		B Buna N	1 1/3 psig	S NACE MR0175	F2 FC-02
CO	S4 304 SS	FRT Female BSPT	6 3/8" or 6 mm			N Neoprene	2 1 psig		
CA	4L 304L SS	RT Male BSPT	8 1/2" or 8 mm			E Ethylene propylene	3 10 psig		
COA	S1 321 SS	FMS Female Metric Thread (for RP)	10 10 mm			Z Kalrez	4 25 psig		
CL	A20 Alloy 20	MS Male Metric Thread (for RG)	12 3/4" or 12 mm				3 to 50 psig		
CW	M Alloy 400	FRP Female BSPP (for RP)	14 14 mm or M14 x 1.5				5 50 to 150 psig		
	INC Alloy 600	BP Male BSPP (for RG)	16 1" or 16 mm				6 150 to 350 psig		
	HC Alloy C-276	TS Fractional Tube Socket Weld	18 18 mm				7 350 to 600 psig		
	B Brass	MTS Metric Tube Socket Weld	20 1 1/4" or 20 mm or M20 x 1.5						
	CS Carbon Steel	TB Fractional Tube Butt Weld	22 22 mm or M22 x 1.5						
	D5 Duplex 2205	MTB Metric Tube Butt Weld	25 25 mm						
	D7 Duplex 2507	PS Pipe Socket Weld							
	TI Titanium	PB Pipe Butt Weld							
	904L 904L SS	FL Fractional Tube Fitting							
		ML Metric Tube Fitting							
		UFB Nut+Gasket+ Fractional Bulge Nipple							
		UMB Nut+ Gasket+Metric Bulge Nipple							
		FO Male FO Fitting							
		FFR Female FR Fitting							
		FR Male FR Fitting							
		RFR Rotatable Male FR Fitting							

Note: "Part Number Description" is used for composition rules of FITOK product model, Not suitable for specific product part number selection, not random combinations. If in doubt, please contact FITOK company or authorized agents.

1. *Standard thread pitch for metric threads are as follows:*
   M10 and below: 1 mm
   M12 to M24: 1.5 mm
   M27 and above: 2 mm
   Standard thread pitch should be ignored in the ordering number, others should be specified.
2. *For Oxygen-Riched Environment or dangerous media, Pls contact FITOK Group or Authorized Distributor.*
3. *Cleaning and Packaging:*
   FC-01: Standard cleaning and packaging for general industrial procedures.
   FC-02: Special cleaning and packaging for wetted system components to ensure compliance with product cleanliness requirement as stated in ASTM G93 Level C.

Part Number Description

SSCV – SP8 – 2

Spring Material	Series	Part Name	Body Size	Cracking Pressure
SS 316 SS	CV	SP Spring	4	3 psig
S4 304 SS	CH		8	1 1/3 psig
S2 302 SS	CO		12	1 1 psig
A75 X-750	CA		16	2 10 psig
	COA			3 25 psig
				3~50 psig
				5 50~150 psig
				6 150~350 psig
				7 350~600 psig

Note: "Part Number Description" is used for composition rules of FITOK product model, Not suitable for specific product part number selection, not random combinations. If in doubt, please contact FITOK company or authorized agents.