

# Check Valves

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



# Check Valves

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



### Features

#### CV Series

- ⦿ Resilient O-ring seat design for leak free sealing
- ⦿ Working pressure up to: 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
- ⦿ Non-adjustable cracking pressure, mountable in any directions

#### CO Series

- ⦿ Compact design, one-piece body
- ⦿ Working pressure up to: 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
- ⦿ Non-adjustable cracking pressure, mountable in any directions

#### COA Series

- ⦿ Compact design, one-piece body
- ⦿ Working pressure up to: 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
- ⦿ Various springs available
- ⦿ Adjustable cracking pressure, mountable in any directions

#### CH Series

- ⦿ Seat ring continuously cleaned by media, avoiding secondary pollution
- ⦿ Working pressure up to: 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
- ⦿ Non-adjustable cracking pressure, mountable in any directions
- ⦿ ECE R110 type approved valves for use in CNG/NGV application available

#### CA Series

- ⦿ Working pressure up to: 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
- ⦿ Various springs available
- ⦿ Adjustable cracking pressure, mountable in any directions

#### CL Series

- ⦿ Working pressure up to: 6000 psig (414 bar)
- ⦿ Working temperature: -65°F to 900°F (-53°C to 482°C)
- ⦿ Rugged, all-stainless steel construction
- ⦿ Union bonnet design, horizontal installation with bonnet nut on top
- ⦿ Reverse flow coefficient less than 0.1% of forward flow coefficient

- Besides CL series, other check valves are all coated with lubricants like silicone base and molybdenum disulfide base.
- Please contact FITOK Group or our authorized distributors for other materials.
- PTFE-coated spring is an option for CV, CO, CA, and COA series check valves. For more details, please contact FITOK Group or our authorized distributors.
- Every valve is tested with nitrogen for leak-tight performance at its maximum working pressure.

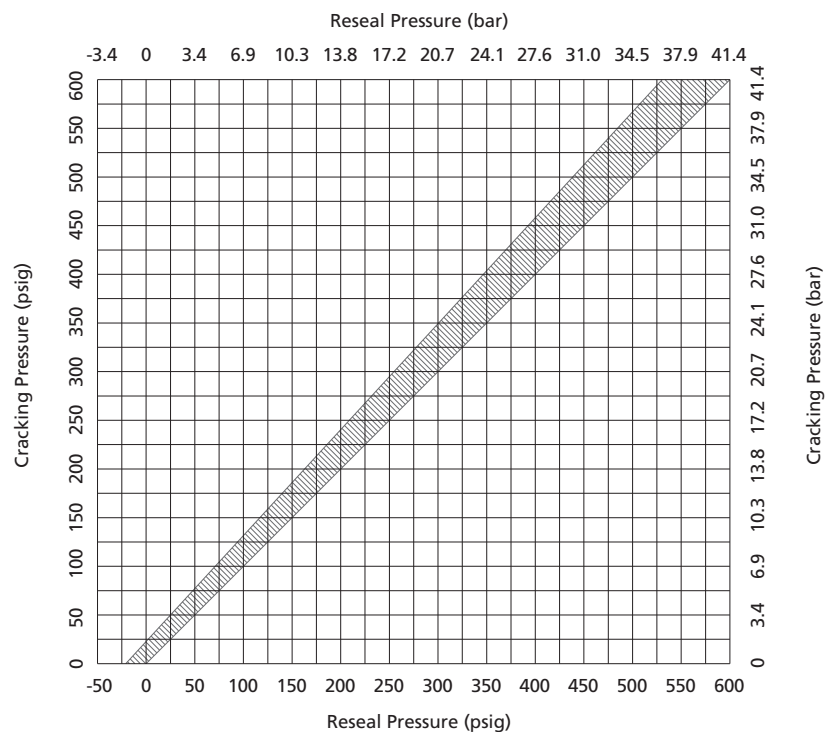
## Cracking Pressure and Reseal Pressure

**Cracking pressure** - the upstream pressure at which the first indication of flow occurs.

**Reseal pressure** - the pressure at which there is no indication of flow.

**Back Pressure** - differential pressure between inlet and outlet pressures.

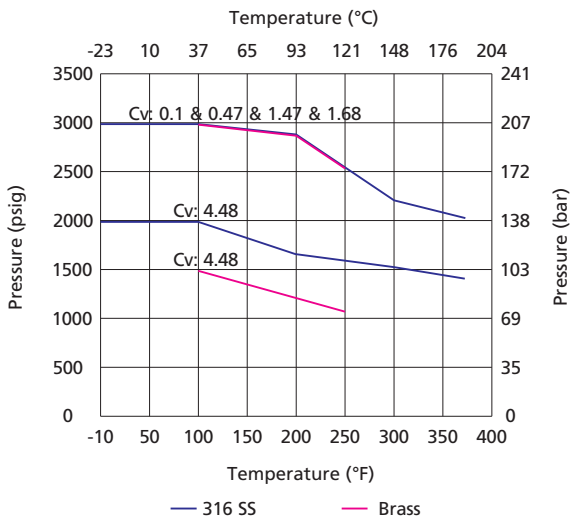
Series	Nominal Cracking Pressure psig (bar)	Cracking Pressure Range psig (bar)	Reseal Pressure Range psig (bar)	
CV	1/3 (0.02)	0 to 3 (0 to 0.21)	≤6 (0.42)	Back Pressure
	1 (0.06)	0 to 4 (0 to 0.28)	≤6 (0.42)	Back Pressure
	3 (0.21)	1 to 5 (0.06 to 0.34)	≤6 (0.42)	Back Pressure
	10 (0.68)	7 to 15 (0.49 to 1.1)	≥3 (0.21)	Inlet Pressure
	25 (1.7)	20 to 30 (1.4 to 2.1)	≥17 (1.2)	Inlet Pressure
CH	1/3 (0.02)	0 to 3 (0 to 0.21)	≤6 (0.42)	Back Pressure
	1 (0.06)	0 to 4 (0 to 0.28)	≤5 (0.35)	Back Pressure
	3 (0.21)	1 to 5 (0.06 to 0.34)	≤2 (0.14)	Back Pressure
	10 (0.68)	7 to 15 (0.49 to 1.1)	≥3 (0.21)	Inlet Pressure
	25 (1.7)	20 to 30 (1.4 to 2.1)	≥17 (1.2)	Inlet Pressure
CO	1/3 (0.02)	0 to 3 (0 to 0.21)	6 to 20 (0.42 to 1.4)	Back Pressure
	1 (0.06)	0 to 4 (0 to 0.28)	5 to 20 (0.35 to 1.4)	Back Pressure
	3 (0.21)	1 to 5 (0.06 to 0.34)	3 to 20 (0.21 to 1.4)	Back Pressure
	10 (0.68)	7 to 15 (0.49 to 1.1)	3 to 10 (0.21 to 0.68)	Back Pressure
	25 (1.7)	20 to 30 (1.4 to 2.1)	≥5 (0.35)	Inlet Pressure
CA	3 to 50 (0.21 to 3.4)	—	Refer to the chart below	
COA	50 to 150 (3.4 to 10.3)			
	150 to 350 (10.3 to 24.1)			
	350 to 600 (24.1 to 41.3)			



## Pressure vs. Temperature

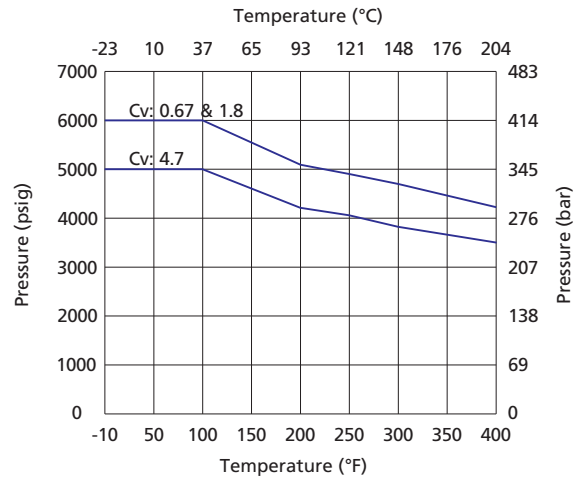
### CV Series

FKM O-ring in 316 SS Body and Buna N in Brass Body



### CH Series

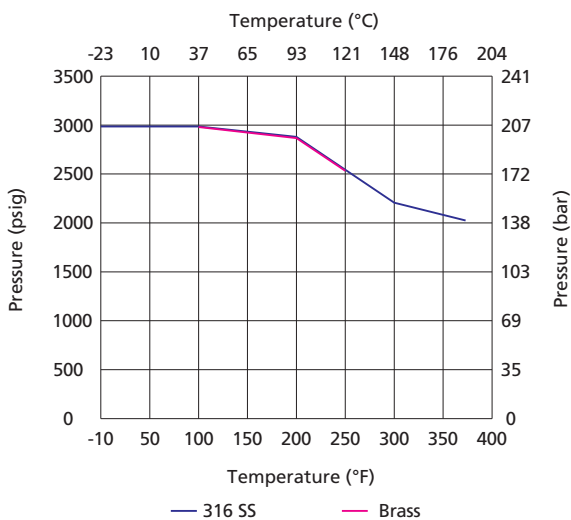
FKM O-ring in 316 SS Body



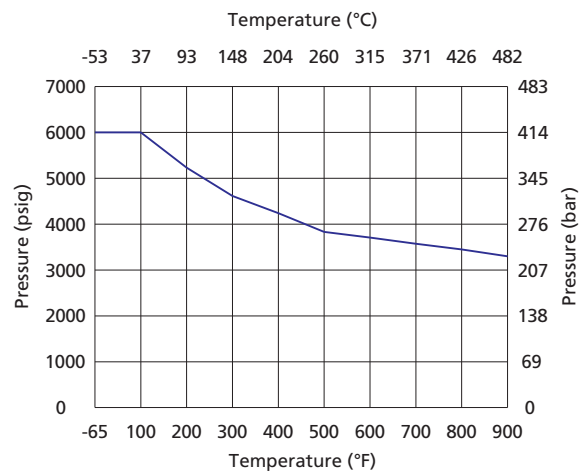
The pressure rating of CH Series check valve is restricted by the connection types. For details please refer to B-148.

### CO, CA and COA Series

FKM O-ring in 316 SS Body and Buna N in Brass Body

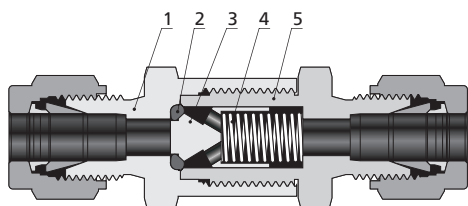


### CL Series



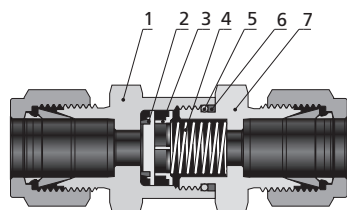
## Standard Materials of Construction

### CV Series



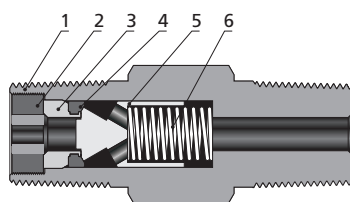
Component		Material Grade/ASTM Specification	
		316 SS	Brass
1	Inlet Body	316 SS/A479	Brass C36000/B16
2	O-ring	Fluorocarbon FKM	Buna N
3	Poppet	316 SS/A479	Brass C36000/B16
4	Spring	302 SS/A313	302 SS/A313
5	Outlet Body	316 SS/A479	Brass C36000/B16

### CH Series



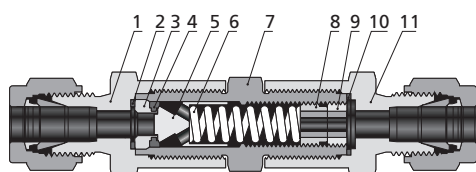
Component		Material Grade/ASTM Specification	
1	Inlet Body	316 SS/A479	
2	Poppet	Fluorocarbon-FKM-bonded 316L SS/A479	
3	Poppet Stop	316 SS/A479	
4	Spring	302 SS/A313	
5	O-ring	Fluorocarbon FKM	
6	Backup Ring	PTFE/D1710	
7	Outlet Body	316 SS/A479	

### CO Series



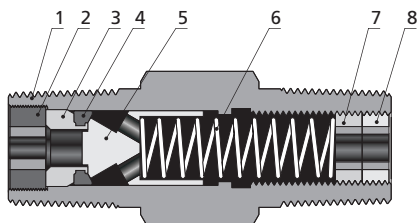
Component		Material Grade/ASTM Specification	
		316 SS	Brass
1	Body	316 SS/A479	Brass C36000/B16
2	Insert Locking Screw	316 SS/A479	Brass C36000/B16
3	Insert	316 SS/A479	Brass C36000/B16
4	O-ring	Fluorocarbon FKM	Buna N
5	Poppet	316 SS/A479	Brass C36000/B16
6	Spring	302 SS/A313	302 SS/A313

### CA Series



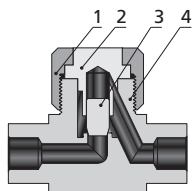
Component		Material Grade/ASTM Specification	
		316 SS	Brass
1	Inlet Body	316 SS/A479	Brass C36000/B16
2	Inlet Gasket	PTFE-coated 316 SS/A479	PTFE-coated 316 SS/A479
3	Insert	316 SS/A479	Brass C36000/B16
4	O-ring	Fluorocarbon FKM	Buna N
5	Poppet	316 SS/A479	Brass C36000/B16
6	Spring	302 SS/A313	302 SS/A313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

## COA Series



Component		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/A479	316 SS/A479
8	Locking Screw	316 SS/A479	316 SS/A479

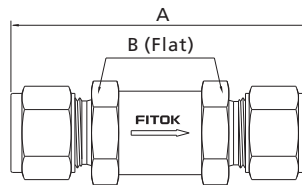
## CL Series



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

## Dimensions

### CV Series



Basic Ordering Number	Connection Type and Size		Cv	Dimensions, in. (mm)	
	Inlet	Outlet		A	B
CV□□-FL2-	1/8" FITOK	1/8" FITOK	0.10	2.14 (54.3)	5/8 (15.9)
CV□□-FL4-	1/4" FITOK	1/4" FITOK	0.47	2.35 (59.7)	
CV□□-FL6-	3/8" FITOK	3/8" FITOK	1.47	3.17 (80.5)	7/8 (22.2)
CV□□-FL8-	1/2" FITOK	1/2" FITOK	1.68	3.42 (86.9)	
CV□□-FL12-	3/4" FITOK	3/4" FITOK	4.48	4.32 (110.0)	1 1/4 (31.8)
CV□□-FL16-	1" FITOK	1" FITOK		4.74 (120.0)	1 3/8 (34.9)
CV□□-ML6-	6 mm FITOK	6 mm FITOK	0.47	2.36 (59.9)	5/8 (15.9)
CV□□-ML10-	10 mm FITOK	10 mm FITOK	1.68	3.32 (84.3)	7/8 (22.2)
CV□□-ML12-	12 mm FITOK	12 mm FITOK		3.42 (86.9)	
CV□□-FNS2-	1/8 Female NPT	1/8 Female NPT	0.10	1.89 (48.0)	5/8 (15.9)
CV□□-FNS4-	1/4 Female NPT	1/4 Female NPT	0.47	2.15 (54.6)	3/4 (19.1)
CV□□-FNS6-	3/8 Female NPT	3/8 Female NPT	1.47	2.98 (75.7)	7/8 (22.2)
CV□□-FNS8-	1/2 Female NPT	1/2 Female NPT	1.68	3.58 (90.9)	1 1/16 (27.0)
CV□□-FNS12-	3/4 Female NPT	3/4 Female NPT	4.48	4.08 (104.0)	1 1/4 (31.8)
CV□□-FNS16-	1 Female NPT	1 Female NPT		4.84 (123.0)	1 5/8 (41.3)
CV□□-NS2-	1/8 Male NPT	1/8 Male NPT	0.10	1.71 (43.4)	5/8 (15.9)
CV□□-NS4-	1/4 Male NPT	1/4 Male NPT	0.47	2.09 (53.1)	
CV□□-NS6-	3/8 Male NPT	3/8 Male NPT	1.47	2.78 (70.6)	7/8 (22.2)
CV□□-NS8-	1/2 Male NPT	1/2 Male NPT	1.68	3.16 (80.3)	
CV□□-NS12-	3/4 Male NPT	3/4 Male NPT	4.48	4.08 (104.0)	1 1/4 (31.8)
CV□□-NS16-	1 Male NPT	1 Male NPT		4.52 (115.0)	1 5/8 (41.3)
CV□□-FR4-	1/4" Male FR	1/4" Male FR	0.47	2.21 (56.2)	5/8 (15.9)
CV□□-FR8-	1/2" Male FR	1/2" Male FR	1.68	3.56 (90.4)	15/16 (23.8)
CV□□-FR12-	3/4" Male FR	3/4" Male FR	4.48	4.64 (118.0)	1 5/8 (41.3)
CV□□-FR16-	1" Male FR	1" Male FR		4.76 (121.0)	

## Ordering Number Description

**CVSS - FL8 - ML10 - B - 2SF2**

Series	Body Material	Inlet Type	Inlet Size	Outlet Type	Outlet Size	Seal Material	Nominal Cracking Pressure	Special Application	Cleaning and Packaging
CV	SS 316 SS 6L 316L SS B Brass M Alloy 400	FNS Female NPT NS Male NPT FRT Female BSPT RT Male BSPT FMS Female Metric Thread (for RG-M) MS Male Metric Thread (for RG-M) FRP Female BSPP (for RP) BP Male BSPP (for RG) FL Fractional Tube Fitting ML Metric Tube Fitting FO Male FO Fitting FR Male FR Fitting UMB Rotatable Metric Tube Butt Weld UFB Rotatable Fractional Tube Butt Weld	2 1/8" 4 1/4" 6 3/8" or 6 mm 8 1/2" or 8 mm 10 10 mm 12 3/4" or 12 mm 16 1"			Fluorocarbon FKM B Buna N E EPDM N Neoprene Z FFKM	3 psig 1 1/3 psig 2 1 psig 3 10 psig 4 25 psig	NO S NACE MR0175	FC-01 F2 FC-02
						Same as Inlet			
						Specified in the same way as the inlet type and size			

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 omitted in the ordering number, others should be specified.

2. For oxygen-enriched environment or hazardous media service, please contact FITOK Group or our authorized distributors.

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 of ASTM G93 Level C.

4. The materials, connection types and sizes listed in the "Ordering Number Description" are standard. For other materials and end connections, please contact FITOK Group or our authorized distributors.

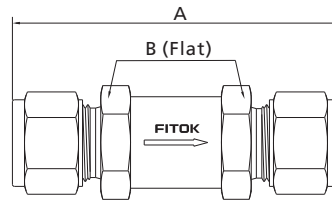
5. PTFE-coated gasket can be chosen to reduce the possibility of O-ring's moving in system caused by the pressure fluctuations, vibration or pulsating. For more details, please contact FITOK Group or our authorized distributors.

6. Check valve is designed with unidirectional flow path, it can't be used as safety relief valve.

7. If the check valve is not opened for a period of time, its initial cracking pressure may be higher than set cracking pressure.



## CH Series



FLO-TIGHT® FLO-TIGHT® FLO-TIGHT®						
Basic Ordering Number	Connection Type and Size		Pressure Rating at 100° F (37° C) bar (psig)	Cv	Dimensions, in. (mm)	
	Inlet	Outlet			A	B
CH□□-FL2-	1/8" FITOK	1/8" FITOK	414 (6000)	0.67	2.27 (57.7)	11/16 (17.5)
CH□□-FL4-	1/4" FITOK	1/4" FITOK			2.43 (61.7)	
CH□□-FL6-	3/8" FITOK	3/8" FITOK		1.8	2.75 (69.9)	1 (25.4)
CH□□-FL8-	1/2" FITOK	1/2" FITOK			2.96 (75.2)	
CH□□-FL12-	3/4" FITOK	3/4" FITOK	344 (5000)	4.7	3.52 (89.4)	1 5/8 (41.3)
CH□□-FL16-	1" FITOK	1" FITOK	323 (4700)		4.11 (104.5)	
CH□□-ML6-	6 mm FITOK	6 mm FITOK	414 (6000)	0.67	2.43 (61.7)	11/16 (17.5)
CH□□-ML8-	8 mm FITOK	8 mm FITOK			1.8	
CH□□-ML10-	10 mm FITOK	10 mm FITOK		2.80 (71.1)		
CH□□-ML12-	12 mm FITOK	12 mm FITOK		2.96 (75.2)		
CH□□-ML22-	22 mm FITOK	22 mm FITOK	337 (4900)	4.7	3.48 (88.4)	1 5/8 (41.3)
CH□□-ML25-	25 mm FITOK	25 mm FITOK	316 (4600)		3.88 (98.6)	
CH□□-FNS4-	1/4 Female NPT	1/4 Female NPT	414 (6000)	0.67	2.13 (54.1)	11/16 (17.5)
CH□□-FNS6-	3/8 Female NPT	3/8 Female NPT	365 (5300)		1.8	
CH□□-FNS8-	1/2 Female NPT	1/2 Female NPT	337 (4900)	4.7		3.03 (77.0)
CH□□-FNS12-	3/4 Female NPT	3/4 Female NPT	316 (4600)		3.23 (82.0)	1 5/8 (41.3)
CH□□-FNS16-	1 Female NPT	1 Female NPT	303 (4400)	3.83 (97.3)		
CH□□-NS2-	1/8 Male NPT	1/8 Male NPT	414 (6000)	0.67	1.79 (45.4)	11/16 (17.5)
CH□□-NS4-	1/4 Male NPT	1/4 Male NPT			2.17 (55.1)	
CH□□-NS6-	3/8 Male NPT	3/8 Male NPT		1.8	2.36 (59.9)	1 (25.4)
CH□□-NS8-	1/2 Male NPT	1/2 Male NPT			2.73 (69.3)	
CH□□-NS12-	3/4 Male NPT	3/4 Male NPT	344 (5000)	4.7	3.29 (83.6)	1 5/8 (41.3)
CH□□-NS16-	1 Male NPT	1 Male NPT			3.67 (93.2)	
CH□□-FRT4-	1/4 Female BSPT	1/4 Female BSPT	414 (6000)	0.67	2.28 (57.9)	11/16 (17.5)
CH□□-FRT8-	1/2 Female BSPT	1/2 Female BSPT	351 (5100)		3.29 (83.6)	
CH□□-FRT12-	3/4 Female BSPT	3/4 Female BSPT	330 (4800)	4.7	3.55 (90.2)	1 5/8 (41.3)
CH□□-FRT16-	1 Female BSPT	1 Female BSPT	303 (4400)		3.83 (97.3)	
CH□□-RT4-	1/4 Male BSPT	1/4 Male BSPT	414 (6000)	0.67	2.17 (55.1)	11/16 (17.5)
CH□□-RT8-	1/2 Male BSPT	1/2 Male BSPT			2.73 (69.3)	
CH□□-RT12-	3/4 Male BSPT	3/4 Male BSPT	344 (5000)	4.7	3.35 (85.1)	1 5/8 (41.3)
CH□□-RT16-	1 Male BSPT	1 Male BSPT			3.67 (93.2)	
CH□□-FR4-	1/4" Male FR	1/4" Male FR	414 (6000)	0.67	2.28 (57.9)	11/16 (17.5)
CH□□-FR8-	1/2" Male FR	1/2" Male FR	296 (4300)		2.73 (69.3)	
CH□□-FR12-	3/4" Male FR	3/4" Male FR	254 (3700)	4.7	3.78 (96.0)	1 5/8 (41.3)
CH□□-FO4-	1/4" Male FO	1/4" Male FO	414 (6000)		0.67	
CH□□-FO8-	1/2" Male FO	1/2" Male FO		2.35 (59.7)		1 (25.4)
CH□□-FO12-	3/4" Male FO	3/4" Male FO	344 (5000)	4.7	2.90 (73.7)	
CH□□-FO16-	1" Male FO	1" Male FO				

## Ordering Number Description

**CHSS - FL8 - ML10 - B - 2SF2**

Series	Body Material	Inlet Type	Inlet Size	Outlet Type	Outlet Size	Seal Material	Nominal Cracking Pressure	Special Application	Cleaning and Packaging
<b>CH</b>	<b>SS</b> 316 SS <b>6L</b> 316L SS <b>M</b> Alloy 400	<b>FNS</b> Female NPT <b>NS</b> Male NPT <b>FRT</b> Female BSPT <b>RT</b> Male BSPT <b>FMS</b> Female Metric Thread (for RG-M) <b>MS</b> Male Metric Thread (for RG-M) <b>FRP</b> Female BSPP (for RP) <b>BP</b> Male BSPP (for RG) <b>FL</b> Fractional Tube Fitting <b>ML</b> Metric Tube Fitting <b>FO</b> Male FO Fitting <b>FR</b> Male FR Fitting <b>UMB</b> Rotatable Metric Tube Butt Weld <b>UFB</b> Rotatable Fractional Tube Butt Weld	<b>2</b> 1/8" <b>4</b> 1/4" <b>6</b> 3/8" or 6 mm <b>8</b> 1/2" or 8 mm <b>10</b> 10 mm <b>12</b> 3/4" or 12 mm <b>16</b> 1" <b>22</b> 22 mm or M22 x 1.5 <b>25</b> 25 mm			<b>B</b> Fluorocarbon FKM <b>B</b> Buna N <b>E</b> EPDM <b>N</b> Neoprene <b>Z</b> FFKM	<b>3</b> 3 psig <b>1</b> 1/3 psig <b>2</b> 1 psig <b>3</b> 10 psig <b>4</b> 25 psig	<b>NO</b> <b>S</b> NACE MR0175 <b>R110</b> ECE R110	<b>FC-01</b> <b>F2</b> FC-02
						Same as Inlet			
						Specified in the same way as the inlet type and size			

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 omitted in the ordering number, others should be specified.

2. For oxygen-enriched environment or hazardous media service, please contact FITOK Group or our authorized distributors.

3. Cleaning and Packaging:

FC-01: Standard cleaning and packaging for general industrial procedures.

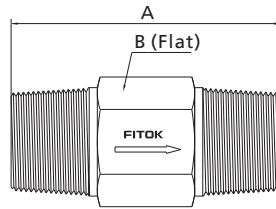
FC-02: Special cleaning and packaging for wetted system components to ensure compliance with product cleanliness requirement of ASTM G93 Level C.

4. The materials, connection types and sizes listed in the "Ordering Number Description" are standard. For other materials and end connections, please contact FITOK Group or our authorized distributors.

5. Check valve is designed with unidirectional flow path, it can't be used as safety relief valve.

6. If the check valve is not opened for a period of time, its initial cracking pressure may be higher than set cracking pressure.

## CO Series



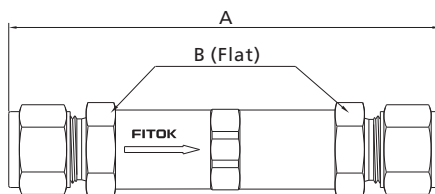
Basic Ordering Number	Connection Type and Size		Cv	Dimensions, in. (mm)	
	Inlet	Outlet		A	B
CO□□-FNS4-	1/4 Female NPT	1/4 Female NPT	0.35	2.41 (61.2)	3/4 (19.1)
CO□□-FNS8-	1/2 Female NPT	1/2 Female NPT	1.20	3.71 (94.2)	1 1/16 (27.0)
CO□□-NS4-	1/4 Male NPT	1/4 Male NPT	0.35	1.62 (41.1)	9/16 (14.3)
CO□□-NS8-	1/2 Male NPT	1/2 Male NPT	1.20	2.28 (57.9)	7/8 (22.2)
CO□□-FRT4-	1/4 Female BSPT	1/4 Female BSPT	0.35	2.54 (64.5)	3/4 (19.1)
CO□□-RT4-	1/4 Male BSPT	1/4 Male BSPT		1.62 (41.1)	9/16 (14.3)

## Ordering Number Description

COSS - FNS8 - NS8 - B - 2SF2									
Series	Body Material	Inlet Type	Inlet Size	Outlet Type	Outlet Size	Seal Material	Nominal Cracking Pressure	Special Application	Cleaning and Packaging
CO	SS 316 SS 6L 316L SS B Brass M Alloy 400	FNS Female NPT NS Male NPT FRT Female BSPT RT Male BSPT	2 1/8" 4 1/4" 6 3/8" 8 1/2"	Same as Inlet Specified in the same way as the inlet type and size		Fluorocarbon FKM B Buna N N Neoprene E EPDM Z FFKM	3 psig 1 1/3 psig 2 1 psig 3 10 psig 4 25 psig	NO S NACE MR0175	FC-01 F2 FC-02

- For oxygen-enriched environment or hazardous media service, please contact FITOK Group or our authorized distributors.
- 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 of ASTM G93 Level C.
- The materials, connection types and sizes listed in the "Ordering Number Description" are standard. For other materials and end connections, please contact FITOK Group or our authorized distributors.
- Check valve is designed with unidirectional flow path, it can't be used as safety relief valve.
- If the check valve is not opened for a period of time, its initial cracking pressure may be higher than set cracking pressure.

## CA Series



Basic Ordering Number	Connection Type and Size		Cv	Dimensions, in. (mm)	
	Inlet	Outlet		A	B
CA □□-FL4-	1/4" FITOK	1/4" FITOK	0.37	3.23 (82.0)	5/8 (15.9)
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)	

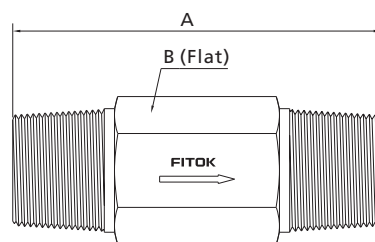
## Ordering Number Description

CASS - FL8 - ML10 - B - 2SF2 - T										
Series	Body Material	Inlet Type	Inlet Size	Outlet Type	Outlet Size	Seal Material	Cracking Pressure	Special Application	Cleaning and Packaging	Specified Cracking Pressure
SS	316 SS	FL	Fractional Tube Fitting	4	1/4"		3 to 50 psig	NO	FC-01	None
6L	316L SS	ML	Metric Tube Fitting	6	6 mm		5 50 to 150 psig			
B	Brass			8	8 mm		6 150 to 350 psig	S	F2	FC-02
M	Alloy 400	FR	Male FR Fitting	Specified in the same way as the inlet type and size			7 350 to 600 psig			
CA						Fluorocarbon FKM				
						B Buna N				
						E EPDM				
						N Neoprene				
						Z FFKM				
										T
										Valves are set and tested as per the specified cracking pressure

Check Valves  
Relief Valves

- For oxygen-enriched environment or hazardous media service, please contact FITOK Group or our authorized distributors.
- 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 of ASTM G93 Level C.
- The materials, connection types and sizes listed in the "Ordering Number Description" are standard. For other materials and end connections, please contact FITOK Group or our authorized distributors.
- Check valve is designed with unidirectional flow path, it can't be used as safety relief valve.
- If the check valve is not opened for a period of time, its initial cracking pressure may be higher than set cracking pressure.
- For the specified cracking pressure of check valve, please indicate its value to be set when ordering.

## COA Series



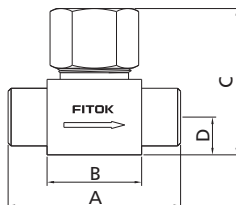
Basic Ordering Number	Connection Type and Size		Cv	Dimensions, in. (mm)	
	Inlet	Outlet		A	B
COA □□-FNS4-	1/4 Female NPT	1/4 Female NPT	0.35	2.98 (75.7)	3/4 (19.1)
COA □□-NS4-	1/4 Male NPT	1/4 Male NPT	0.35	1.62 (41.1)	9/16 (14.3)
COA □□-NS8-	1/2 Male NPT	1/2 Male NPT	1.20	2.56 (65.0)	7/8 (22.2)
COA □□-RT4-	1/4 Male BSPT	1/4 Male BSPT	0.35	1.62 (41.1)	9/16 (14.3)
COA □□-RT8-	1/2 Male BSPT	1/2 Male BSPT	1.20	2.56 (65.0)	7/8 (22.2)

## Ordering Number Description

COASS – FNS8 – FNS4 – B – 5SF2 – T												
Series	Body Material	Inlet Type		Inlet Size		Outlet Type	Outlet Size	Seal Material	Cracking Pressure	Special Application	Cleaning and Packaging	Specified Cracking Pressure
COA	SS 316 SS	FNS Female NPT NS Male NPT RT Male BSPT	4 1/4" 8 1/2"	Same as Inlet  Specified in the same way as the inlet type and size	8 1/2"	3 to 50 psig 5 50 to 150 psig 6 150 to 350 psig 7 350 to 600 psig  Fluorocarbon FKM B Buna N E EPDM N Neoprene Z FFKM	NO  S NACE MR0175	FC-01  F2 FC-02	None  T Valves are set and tested as per the specified cracking pressure			
	6L 316L SS											
	B Brass											
	M Alloy 400											

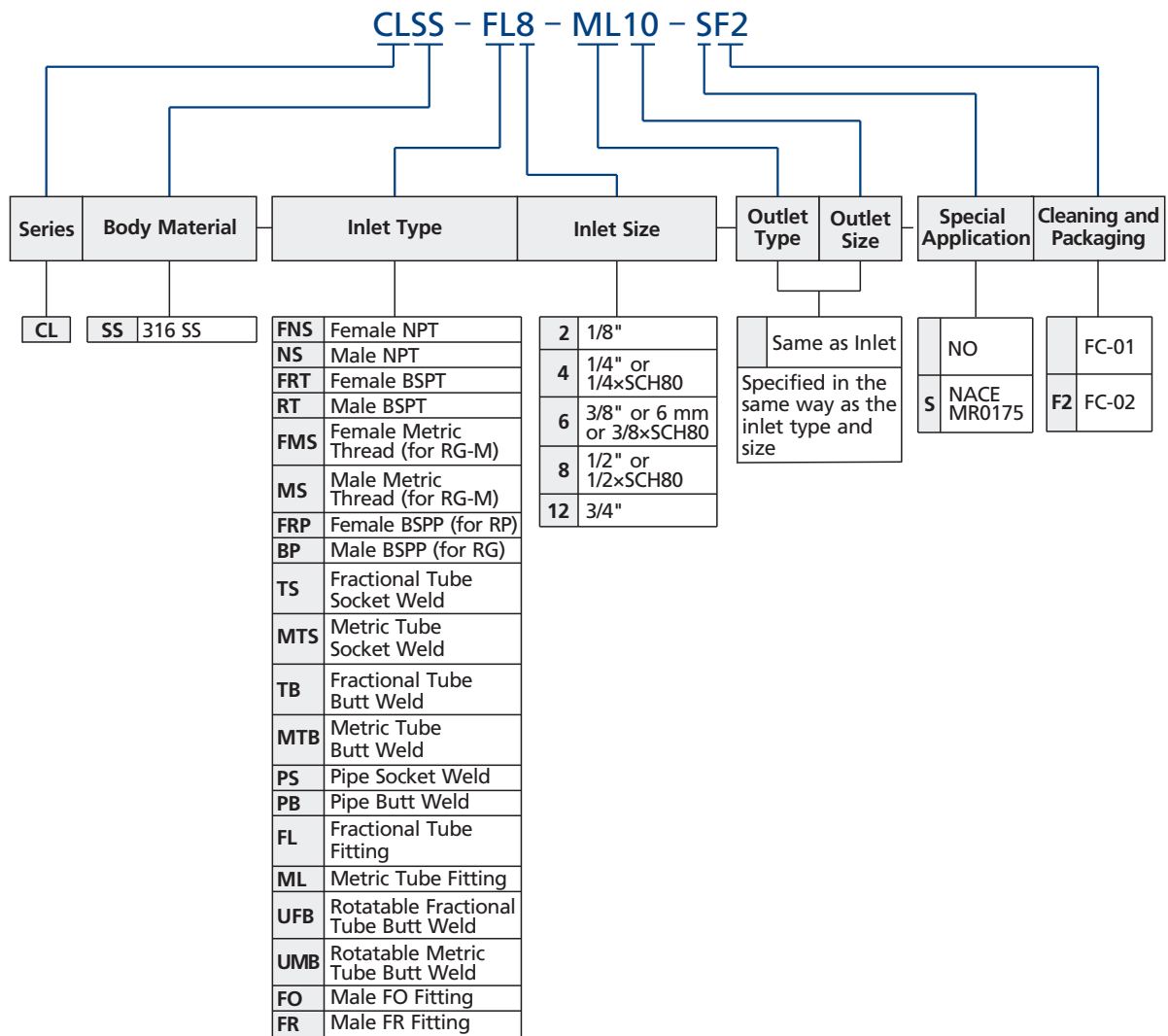
- For oxygen-enriched environment or hazardous media service, please contact FITOK Group or our authorized distributors.
- Cleaning and Packaging:  
FC-01: Standard cleaning and packaging for general industrial procedures.  
FC-02: Special cleaning and packaging for wetted system components to ensure compliance with product cleanliness requirement of ASTM G93 Level C.
- The materials, connection types and sizes listed in the "Ordering Number Description" are standard. For other materials and end connections, please contact FITOK Group or our authorized distributors.
- Check valve is designed with unidirectional flow path, it can't be used as safety relief valve.
- If the check valve is not opened for a period of time, its initial cracking pressure may be higher than set cracking pressure.
- For the specified cracking pressure of check valve, please indicate its value to be set when ordering.

## CL Series



Basic Ordering Number	Connection Type and Size		Cv	Dimensions, 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					
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)	0.90 (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×SCH80 PB	1/4×SCH80 PB	0.30	1.81 (46.0)	0.90 (22.9)	1.47 (37.3)	0.39 (9.9)
CL□□-PB6	3/8×SCH80 PB	3/8×SCH80 PB	0.64	2.25 (57.2)	1.25 (31.8)	1.85 (47.0)	0.50 (12.7)
CL□□-PB8	1/2×SCH80 PB	1/2×SCH80 PB	2.20	3.13 (79.5)	1.88 (47.8)	2.44 (62.0)	0.62 (15.7)

## Ordering Number Description



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 omitted in the ordering number, others should be specified.

2. For oxygen-enriched environment or hazardous media service, please contact FITOK Group or our authorized distributors.

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 of ASTM G93 Level C.

4. The materials, connection types and sizes listed in the "Ordering Number Description" are standard. For other materials and end connections, please contact FITOK Group or our authorized distributors.

[info@fitok.com](mailto:info@fitok.com)  
[www.fitok.com](http://www.fitok.com)

FK-IC-GV-02-EN-240108