CIR-LOK
FLUID SYSTEM SOLUTIONS

Bellows-Sealed Valves

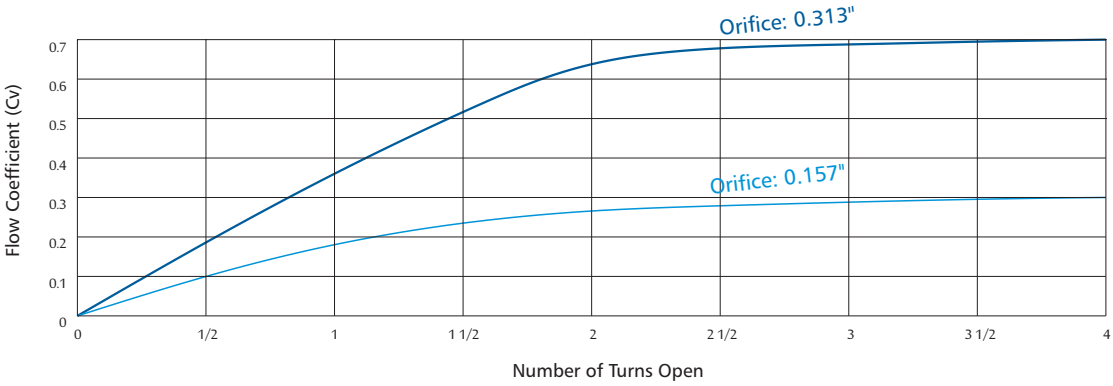
BS3 Series

- Maximum working pressure up to 500 psig (34.4 bar)
- Working temperature from -40℉ to 200℉ (-40℃ to 93℃)
- Flow coefficients (Cv) : 0.3 and 0.7
- Actuator-stem coupling design for smooth actuation
- 316L S.S and 316L VAR S.S. materials

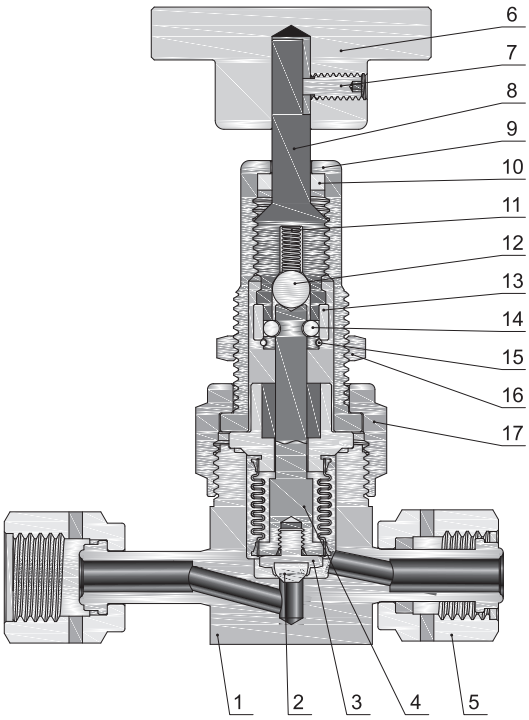
Features

- Maximum working pressure up to 500 psig (34.4 bar)
- Working temperature from -40℉ to 200℉ (-40℃ to 93℃)
- Flow coefficients (Cv) : 0.3 and 0.7
- Variety of end connections
- 316 S.S and 316L VAR S.S. materials
- Panel and bottom mounting
- Bar, round handle are available
- Precion-formed metal bellows providers reliable seal
- Nonrotating stem tip
- Bonnet seals to body without gasket
- Actuator-stem coupling design for smooth actuation
- Every valve is tested with helium for 10s to a maximum leak rate of 4 $\times 10^{-9}$ std cm^3/s

Flow Coefficient vs. Turns Open

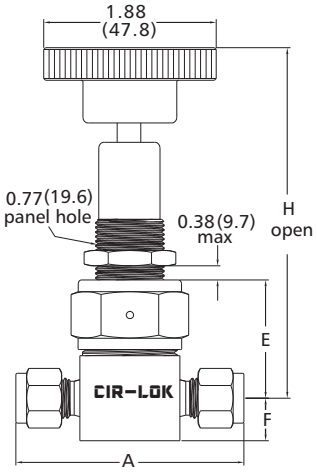


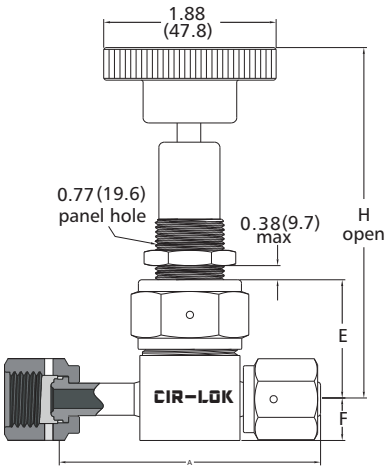
Standard Materials of Construction

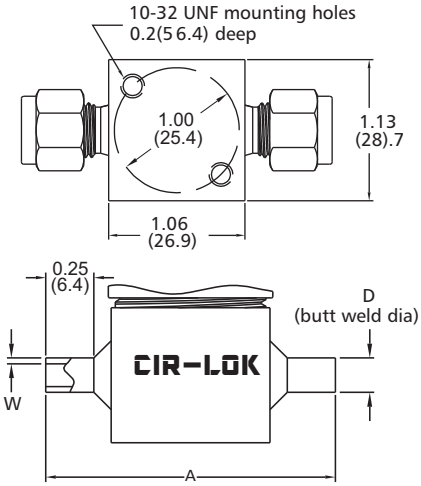


Component		Material Grade/ASTM Specification
1	Body	316L S.S./A479
2	Stem insert	PCTFE/AMS 3650
3	Adapter	316L S.S./A479
4	Stem	316L S.S./A479
	Bushing	Phosphor bronze C5400/B139
	Weld ring	316L S.S./A479
	Bellows	300 series S.S./A269 or A240
5	Nut	316L S.S./A479
6	Handle	Green phenolic
7	Screw	Alloy steel/ANSI 18.3
8	Actuator	S17400 S.S./A564
9	Bonnet	316 S.S./A479
10	Stem wiper	PTFE/AMS 3656
11	Spring	302 S.S./A313
12	Bearing	440C S.S.
13	Bearing retainer	316 S.S./A479
14	Bearing	Chrome steel
15	Retainer ring	302 S.S.
16	Nut	316 S.S./A479
17	Bonnet nut	316 S.S./A479

Dimensions







Basic Ordering Number	Connection Type and Size	Orifice in. (mm)	Cv	Dimension, in. (mm)					
				A	D	E	F	H	W
BS3-F4-04-	1/4" CIR-LOK	0.157 (4.0)	0.30	2.46 (62.5)	—	1.27 (32.3)	0.45 (11.4)	3.88 (98.6)	—
BS3-F6-04-	3/8" CIR-LOK			2.58 (65.5)					
BS3-M6-04-	6mm CIR-LOK			2.46 (62.5)					
BS3-M8-04-	8mm CIR-LOK			2.53 (64.3)					
BS3-FBW4-04-	1/4" FBW			1.74 (44.2)	0.25 (6.4)				0.035 (0.89)
BS3-FBW6-04-	3/8" FBW				0.38 (9.6)				
BS3-MBW6-04-	6mm MBW				(6.0)				(1.0)
BS3-FSW4-04-	1/4" FSW			1.75 (44.4)	0.38 (9.6)				0.060 (1.5)
BS3-GFS4-04-	1/4" Male GFS			2.30 (58.4)	—				—
BS3-OFS4-04-	1/4" Male OFS			2.00 (50.8)					
BS3-FGFS4-04-	1/4" Female GFS			2.76 (70.1)					
BS3-FGFS4-GFS4-04-	1/4" Female/Male GFS			2.54 (64.5)					
BS3-F6-08-	3/8" CIR-LOK	0.313 (8.0)	0.70	2.58 (65.5)	—	1.28 (32.5)	0.53 (13.5)	3.88 (98.5)	—
BS3-F8-08-	1/2" CIR-LOK			2.80 (71.1)					
BS3-M10-08-	10mm CIR-LOK			2.60 (66.0)					
BS3-M12-08-	12mm CIR-LOK			2.80 (71.1)					
BS3-FBW6-08-	3/8" FBW			1.74 (44.2)	0.38 (9.6)				0.035 (0.89)
BS3-FBW8-08-	1/2" FBW				0.50 (12.7)				0.049 (1.2)
BS3-FT8-08-	1/2" FT			3.40 (86.4)	—				—
BS3-GFS8-08-	1/2" Male GFS			2.58 (65.5)		1.33 (33.7)	0.66 (16.8)	3.94 (100.2)	
BS3-FGFS8-08-	1/2" Female GFS			3.15 (80.0)		1.27 (32.2)		3.87 (98.2)	

How to Order

BS3— MBW10 — M10 — 04 — BA — 316

Series	Inlet Type	Inlet Size	Outlet Type	Outlet Size	Orifice Size	Handle	Flow Pattern	Body Material
BS3	**FBW** Fractional Tube Butt Weld **MBW** Metric Tube Butt Weld **F** Fractional Tube Fitting **M** Metric Tube Fitting **FGFS** Female GFS Fitting **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	Same as inlet type and inlet size If outlet and inlet are the same, eliminate the outlet designator		**04** 0.157 in. (4.0 mm) **08** 0.313 in. (8.0 mm)	Blue Aluminum **B** Black Aluminum **R** Red Aluminum **G** Green Aluminum	Straight **A** Angle See porting configurations for the following code **2L** **2N** **2R** **3A** **3B** **3C** **3F** **3G** **4D** **4E**	**316** 316 S.S. **316L** 316L S.S. **316LV** 316L VAR