

Bellows-Sealed Valves

BS3 Series

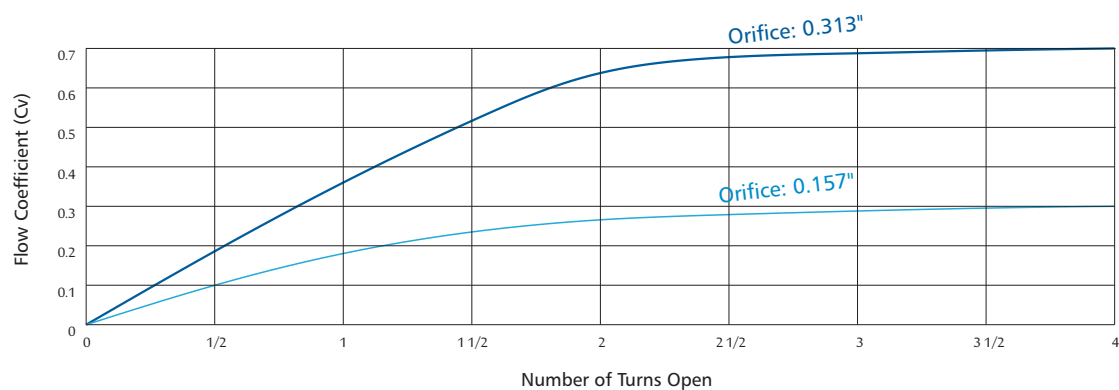


- ❖ Maximum working pressure up to 500 psig (34.4 bar)
- ❖ Working temperature from -40°F to 200°F (-40°C to 93°C)
- ❖ Flow coefficients (Cv) : 0.3 and 0.7
- ❖ Actuator-stem coupling design for smooth actuation
- ❖ 316L S.S. and 316L VAR S.S. materials

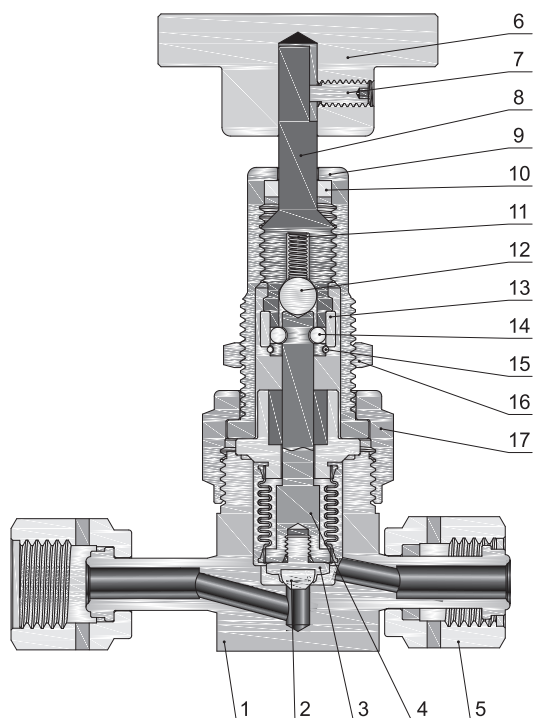
Features

- ❖ Maximum working pressure up to 500 psig (34.4 bar)
- ❖ Working temperature from -40°F to 200°F (-40°C to 93°C)
- ❖ 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
- ❖ Precision-formed metal bellows provides 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 4×10^{-9} std cm³/s

Flow Coefficient vs. Turns Open

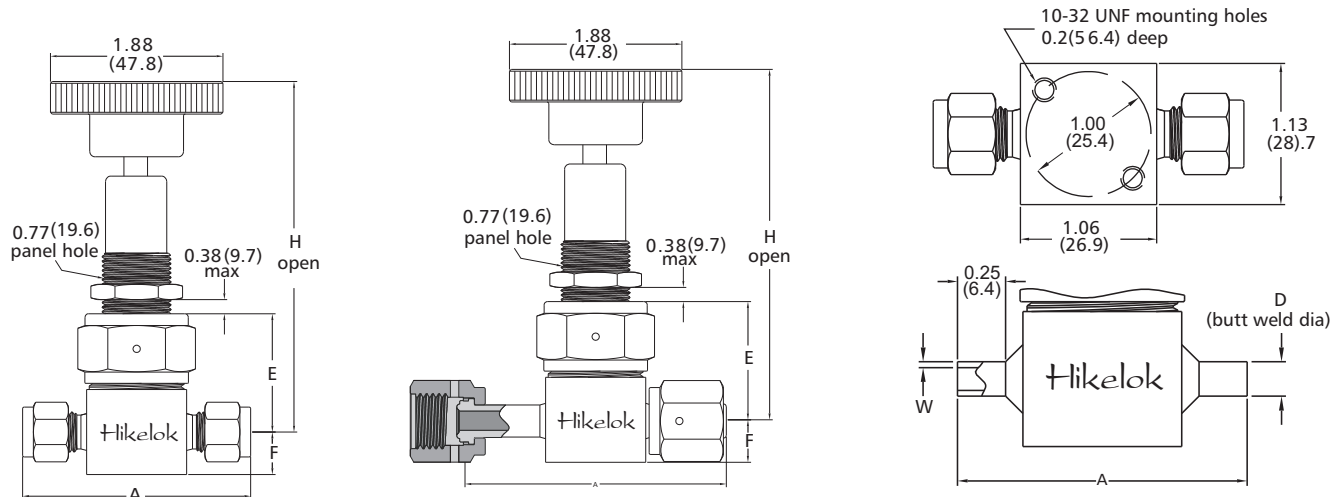


Standard Materials of Construction



Component		Material Grade/ASTM Specification
1	Body	316L SS/A479
2	Stem insert	PCTFE/AMS 3650
3	Adapter	316L SS/A479
4	Stem	316L SS/A479
	Bushing	Phosphor bronze C5400/B139
	Weld ring	316L SS/A479
	Bellows	300 series SS/A269 or A240
5	Nut	316L SS/A479
6	Handle	Green phenolic
7	Screw	Alloy steel/ANSI 18.3
8	Actuator	S17400 SS/A564
9	Bonnet	316 SS/A479
10	Stem wiper	PTFE/AMS 3656
11	Spring	302 SS/A313
12	Bearing	440C SS
13	Bearing retainer	316 SS/A479
14	Bearing	Chrome steel
15	Retainer ring	302 SS
16	Nut	316 SS/A479
17	Bonnet nut	316 SS/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" Hikelok	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" Hikelok			2.58 (65.5)					
BS3-M6-04-	6mm Hikelok			2.46 (62.5)					
BS3-M8-04-	8mm Hikelok			2.53 (64.3)					
BS3-FBW4-04-	1/4" FBW			0.25 (6.4)					
BS3-FBW6-04-	3/8" FBW			1.74 (44.2)	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" Hikelok	2.58 (65.5)	0.313 (8.0)	0.70		1.28 (32.5)	0.53 (13.5)	3.88 (98.5)	
BS3-F8-08-	1/2" Hikelok	2.80 (71.1)							
BS3-M10-08-	10mm Hikelok	2.60 (66.0)							
BS3-M12-08-	12mm Hikelok	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)			

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	2 1/8 in.	Same as inlet type and inlet size		04 0.157 in. (4.0 mm)	Blue Aluminum	Straight	316 316 S.S.
	MBW Metric Tube Butt Weld	4 1/4 in.					A Angle	316L 316L S.S.
	F Fractional Tube Fitting	6 3/8 in. or 6 mm	If outlet and inlet are the same, eliminate the outlet designator		08 0.313 in. (8.0 mm)	B Black Aluminum	See porting configurations for the following code	316LV 316L VAR
	M Metric Tube Fitting	8 1/2 in. or 8 mm				R Red Aluminum	2L	
	FGFS Female GFS Fitting	10 10 mm				G Green Aluminum	2N	
	GFS Male GFS Fitting	12 3/4 in. or 12 mm					2R	
							3A	
							3B	
							3C	
							3F	
							3G	
							4D	
							4E	