

Bellows-Sealed Valves

BS3 Series

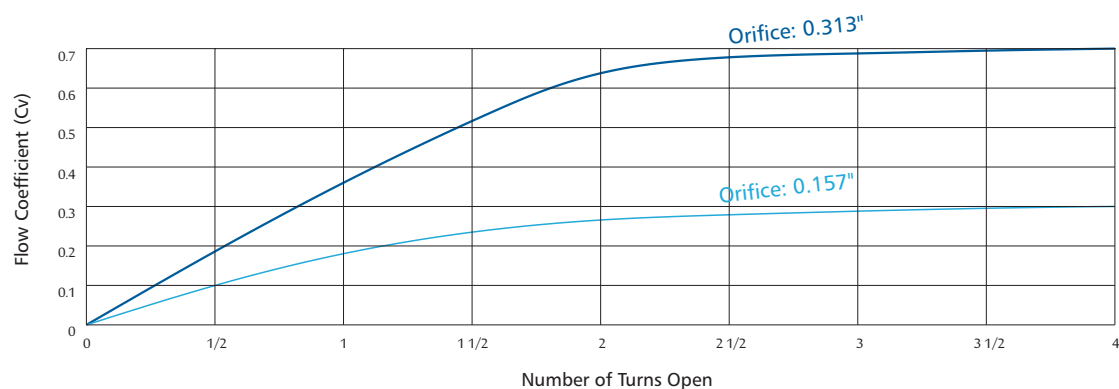


- ❖ Maximum working pressure up to 500 psig (34.4 bar)
- ❖ Working temperature from -40°F to 200°F (-40°C to 93°C)
- ❖ Flow coefficients (Cv) : 0.3 and 0.7
- ❖ Actuator-stem coupling design for smooth actuation
- ❖ 316L S.S and 316L VAR S.S. materials

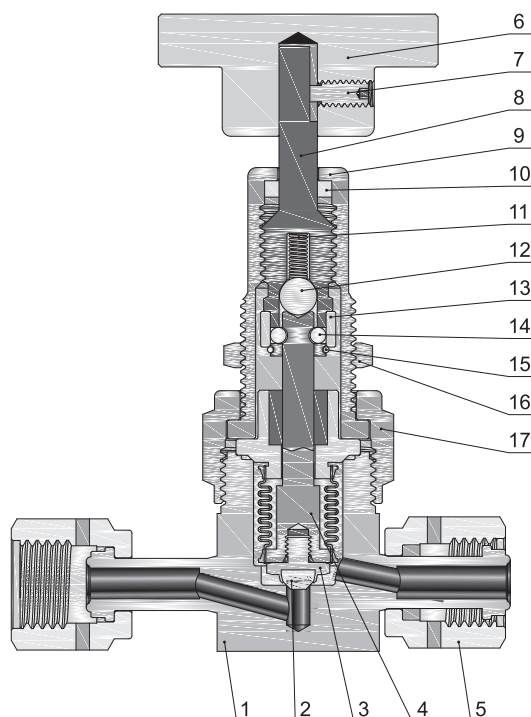
Features

- ❖ 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

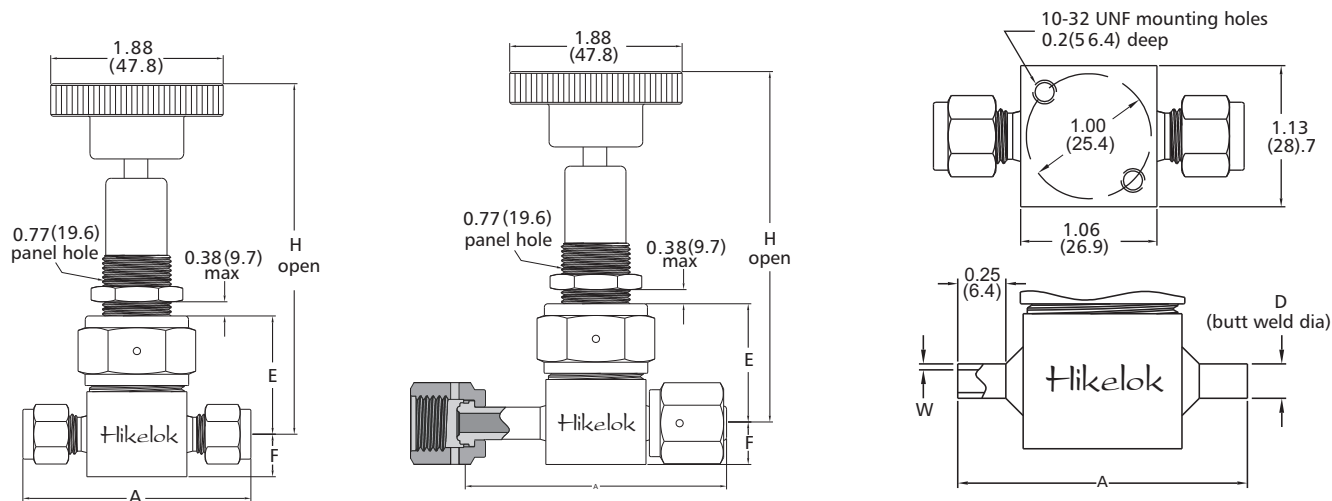


Standard Materials of Construction



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			1.74 (44.2)	0.25 (6.4)				0.035 (0.89)			
BS3-FBW6-04-	3/8" FBW			0.38 (9.6)	1.0							
BS3-MBW6-04-	6mm MBW			(6.0)								
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	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" 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)
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.			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		
	FGFS		Female GFS Fitting	10 10 mm				G Green Aluminum		
		GFS	Male GFS Fitting	12 3/4 in. or 12 mm						
	3A									
	3B									
	3C									
	3F									
	3G									
	4D									