

High Pressure Ball Valves

10BV Series, 10,000 psig (690 bar)

15BV Series, 15,000 psig (1034 bar)

20BV Series, 20,000 psig (1379 bar)

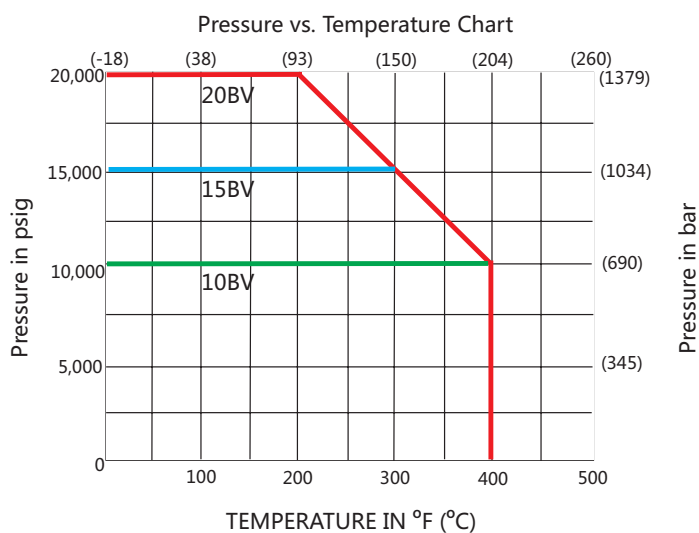


- ❖ One-piece, trunnion mounted style, ideal for severe duty applications.
- ❖ Two-way and three-way valve configurations.
- ❖ PEEK seats offer excellent resistance to chemicals, heat, and wear/abrasion.
- ❖ Full-port flow path minimizes pressure drop.
- ❖ 316 cold worked stainless steel construction.
- ❖ Fluorocarbon FKM O-rings for operation from 0°F to 400°F (-17.8°C to 204°C).
- ❖ Wide selection of tube and pipe end connections available.

Features

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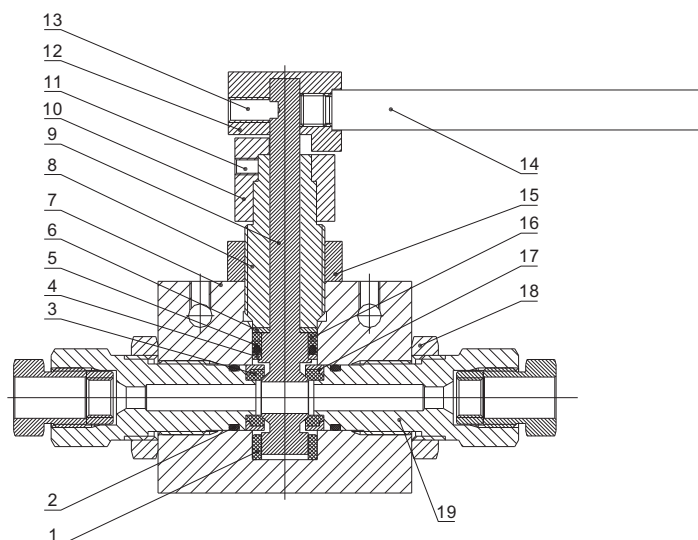
Pressure vs. Temperature



- ❖ pressure ratings are determined by the end connections chosen, see chart.

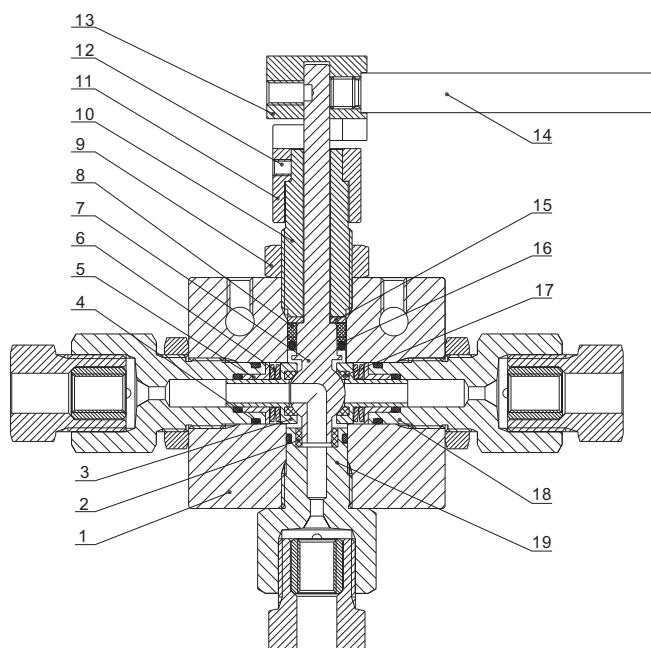
Standard Materials of Construction

2-Way Straight Valves



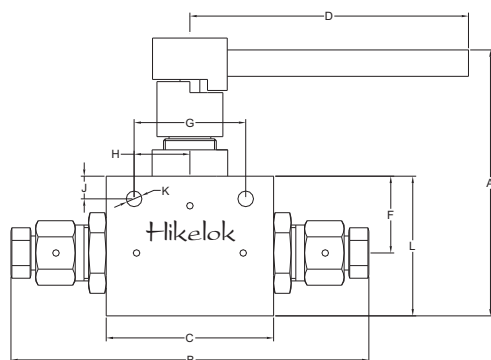
Component	Valve Material Grade/ASTM Specification
1 Bearing	PEEK
2 O-ring	Fluorocarbon FKM
3 Seat	PEEK
4 Thrust Washer	316 S.S./A479
5 Bearing	PTFE/D1710
6 Thrust Washer	316 S.S./A479
7 Body	316 S.S./A479
8 Packing Gland	316 S.S./A479
9 Ball Stem	316 S.S./A479
10 Stopping Device	316 S.S./A276
11 Screw	304 S.S.
12 Handle Seat	316 S.S./A479
13 Screw	304 S.S.
14 Handle	306 S.S./A479
15 Locking Piece	630 S.S./A564
16 Bearing	PEEK
17 Seat Retainer	316 S.S./A479
18 Lock Nut	630 S.S./A564
19 Seat Gland	316 S.S./A479

3-Way Valves

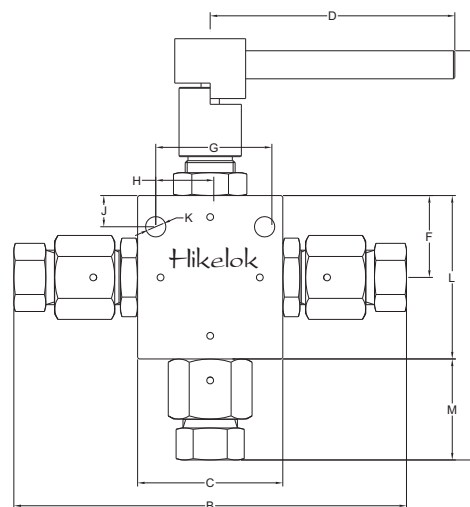


Component	Valve Material Grade/ASTM Specification
1 Body	316 S.S./A479
2 Bearing	PEEK
3 Seat Retainer	316 S.S./A479
4 O-ring	Fluorocarbon FKM
5 Belleville Backup	316 S.S./A479
6 Belleville Washers	316 S.S./A479
7 Ball Stem	316 S.S./A479
8 Bearing	PEEK
9 Locking Piece	316 S.S./A479
10 Packing Gland	316 S.S./A479
11 Stopping Device	316 S.S./A479
12 Screw	304 S.S.
13 Handle Seat	316 S.S./A479
14 Handle	306 S.S./A479
15 Thrust Washer	316 S.S./A479
16 Combination Seal	PTFE
17 Seat	PEEK
18 Seat Gland	316 S.S./A479
19 Bottom Gland	316 S.S./A479

Dimensions



2-Way Valve

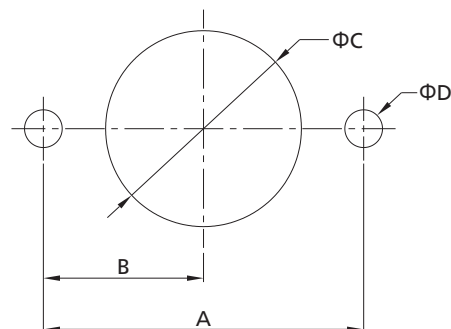


3-Way Valve

Body Style	Orifice No.	A	B	C	D	F	G	H	J	K	L	M	Thickness
		in. (mm)											
2-way	06	4.33 (110)	4.19 (106.5)	2 (50.8)	3.37 (85.6)	1.13 (28.6)	1.5 (38.1)	0.75 (19.1)	0.43 (10.9)	0.28 (7.1)	1.91 (48.4)	—	1 (25.4)
	10	4.97 (126.3)	5.53 (140.4)	3 (76.2)	4.99 (126.8)	1.38 (34.9)	2 (50.8)	1 (25.4)	0.41 (10.3)	0.28 (7.1)	2.5 (63.5)	—	1.38 (34.9)
	13	5.95 (151.1)	7.73 (196.5)	4.13 (104.8)	5.13 (130.2)	1.76 (44.7)	3 (76.2)	1.5 (38.1)	0.5 (12.7)	0.28 (7.1)	3.09 (78.6)	—	1.75 (44.5)
3-way	05	5.64 (143.4)	4.72 (119.9)	2.5 (63.5)	3.37 (85.6)	1.13 (28.6)	1.5 (38.1)	0.75 (19.1)	0.43 (10.9)	0.28 (7.1)	2.25 (57.2)	0.97 (24.6)	1 (25.4)
	10	6.55 (166.4)	5.54 (140.8)	3 (76.2)	4.99 (126.8)	1.38 (34.9)	2 (50.8)	1 (25.4)	0.41 (10.3)	0.28 (7.1)	2.88 (73)	1.19 (30.2)	1.38 (34.9)
	13	7.83 (198.8)	7.77 (197.4)	4.13 (104.8)	5.13 (130.2)	1.66 (42.2)	3 (76.2)	1.5 (38.1)	0.5 (12.7)	0.28 (7.1)	3.34 (84.9)	1.7 (43.2)	1.75 (44.5)

Panel Mounting Dimensions

Body Style	Orifice No.	A in. (mm)	B in. (mm)	C in. (mm)	D in. (mm)
2-way	06	1.5 (38.1)	0.75 (19.1)	1.06 (26.9)	0.28 (7.1)
	10	2 (50.8)	1 (25.4)	1.5 (38.1)	0.28 (7.1)
	13	3 (76.2)	1.5 (38.1)	1.88 (47.6)	0.28 (7.1)
3-way	05	1.5 (38.1)	0.75 (19.1)	1.06 (26.9)	0.28 (7.1)
	10	2 (50.8)	1 (25.4)	1.5 (38.1)	0.28 (7.1)
	13	3 (76.2)	1.5 (38.1)	1.88 (47.6)	0.28 (7.1)



Note: Body mounting 1/4-20 thread

Part Number Description

Basic Ordering Number	Connection Type And Size	Orifice	CV	Pressure/temperature Rating Psig (bar) @ Room Temperature
10BV-MPF12-13-	MPF12	0.5 (12.7)	10.2	10000(690)
10BV-MPF16-13-	MPF16			
10BV-FNPT12-13-	3/4 Female NPT			
10BV-FNPT16-13-	1 Female NPT			
10BV-MPF12-13-3-	MPF12		4.4	
10BV-MPF16-13-3-	MPF16			
10BV-FNPT12-13-3-	3/4 Female NPT			
10BV-FNPT16-13-3-	1 Female NPT			
15BV-LPF2-06-	LPF2	0.094 (2.4)	0.26	15000(1034)
15BV-LPF4-06-	LPF4	0.13 (3.25)	0.26	
15BV-LPF6-06-	LPF6	0.25 (6.35)	1.51	
15BV-LPF8-06-	LPF8			
15BV-FNPT2-06-	1/8 Female NPT			
15BV-FNPT4-06-	1/4 Female NPT			
15BV-FNPT6-06-	3/8 Female NPT			
15BV-FNPT8-06-	1/2 Female NPT			
15BV-LPF8-10-	LPF8	0.375 (9.5)	3.51	
15BV-FNPT4-10-	1/4 Female NPT			
15BV-FNPT6-10-	3/8 Female NPT			
15BV-FNPT8-10-	1/2 Female NPT			
15BV-LPF2-05-3-	LPF2	0.094 (2.4)	0.13	
15BV-LPF4-05-3-	LPF4	0.13 (3.25)	0.23	
15BV-LPF6-05-3-	LPF6	0.19 (4.8)	0.5	
15BV-LPF8-05-3-	LPF8			
15BV-FNPT2-05-3-	1/8 Female NPT			
15BV-FNPT4-05-3-	1/4 Female NPT			
15BV-FNPT6-05-3-	3/8 Female NPT			
15BV-FNPT8-05-3-	1/2 Female NPT			
15BV-LPF8-10-3-	LPF8	0.33 (8.3)	2.1	
15BV-MPF6-10-3-	MPF6	0.2 (5.2)	0.81	
15BV-MPF9-10-3-	MPF9	0.31 (7.9)	1.9	
15BV-MPF12-10-3-	MPF12	0.33 (8.3)	2.1	
15BV-FNPT4-10-3-	1/4 Female NPT			
15BV-FNPT6-10-3-	3/8 Female NPT			
15BV-FNPT8-10-3-	1/2 Female NPT			
20BV-MPF4-06-	MPF4	0.11 (2.8)	0.36	20000(1379)
20BV-MPF6-06-	MPF6	0.2 (5.2)	1.23	
20BV-MPF9-06-	MPF9	0.25 (6.35)	1.51	
20BV-HPF4-06-	HPF4	0.094 (2.4)	0.26	
20BV-HPF6-06-	HPF6	0.125 (3.2)	0.47	
20BV-HPF9-06-	HPF9	0.19 (4.8)	1.05	
20BV-MPF6-06-	MPF6	0.2 (5.2)	1.23	
20BV-MPF9-10-	MPF9	0.31 (7.9)	2.93	
20BV-MPF12-10-	MPF12	0.375 (9.5)	3.51	
20BV-MPF4-05-3-	MPF4	0.11 (2.8)	0.17	
20BV-MPF6-05-3-	MPF6	0.19 (4.8)	0.5	
20BV-MPF9-05-3-	MPF9			
20BV-HPF4-05-3-	HPF4	0.094 (2.4)	0.26	
20BV-HPF6-05-3-	HPF6	0.125 (3.2)	0.47	
20BV-HPF9-05-3-	HPF9	0.19 (4.8)	0.5	

How to Order

15BV— FNPT6 — 05 — 3 — 316

Series	Connector Sizes	Orifice No.	Flow Patterns	Body Material
10BV	LPF2 1/8"	For 2-way	Straight	316 316 S.S.
15BV	LPF4 1/4"	06 1/4"		
20BV	LPF6 3/8"	10 3/8"	3 3-Way	
	LPF8 1/2"	13 1/2"		
	MPF6 3/8"			
	MPF9 9/16"	For 3-way		
	MPF12 3/4"	05 3/16"		
	MPF16 1"	10 3/8"		
	HPF4 1/4"	13 1/2"		
	HPF6 3/8"			
	HPF9 9/16"			
	FNPT2 1/8 Female NPT			
	FNPT4 1/4 Female NPT			
	FNPT6 3/8 Female NPT			
	FNPT8 1/2 Female NPT			
	FNPT12 3/4 Female NPT			
	FNPT16 1 Female NPT			