

1 PIECE BALL VALVES

WVWF

Western Valve & Fitting

(925-443-8500)
4355 Technology Drive
Livermore, CA 94551

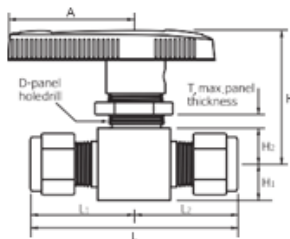
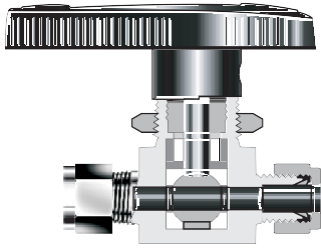


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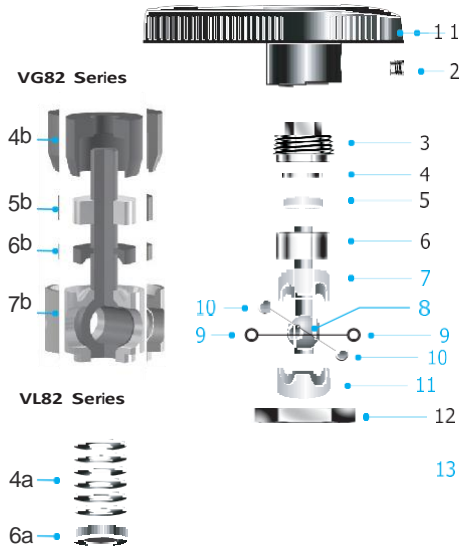
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Features of BV Series

V82 series Ball valves are classified into 3 types according to the temperature range in use. V82 series is for general use and BVL is adequate to the low temperature range. BVT can be used in the wider temperature range from low to high temperature. The exact temperature range of each type is referred to the technical data of the type.



- Sealing is achieved without system pressure
- Bi-directional flow
- **Nylon Directional handle** - indicates the flow through the valve.
- **Panel mounting nut** - is standard and permits valve to panel or actuator.
- **Top-loaded packing** - allows packing adjustment with the valve in-line.
- **Capsule packing** - fills voids in the valve body and prevents fluid entrapment.
 - allows lowest dead space.
- **Support rings and discs** - retains the capsule packing and prevent cold flow.
- **Integral ball stem** - machined from single piece bar stock.
 - eliminates the backlash during handle actuation.
- **One-piece body** - reduces the number of potential leak points.



Materials of Construction

Component	Valve Body Materials	
	Stainless Steel	Brass
	Grade/ASTM Specification	
1. Handle	Nylon with brass insert	
2. Set Screw	stainless steel 304	
3. Packing bolt *	SS316/A276 or A479	Brass C3604
4. Upper Gland	SS316/A276 or A479	
4a. Packing Spring (BVL series)	17-4PH/A693	
4b. Gland (BVT series)	SS316/A276 or A479	
5. Bushing	PTFE/D1710 type 1, Grade 1, Class B	
5b. Packing (BVT series)	PTFE/D1710 type 1, Grade 1, Class B	
6. Lower gland	SS316/A276	Brass C3604
6a. Packing Gland (BVL series)	SS316/A276	
6b. Lower Gland (BVT series)	SS316/A276	Brass C3604
7 & 11. Upper & Lower Packing	PTFE/D1710 type 1	
7b. Integrated Seat (BVT series)	PFA	
8. Ball stem	SS316/A276	
9. Support rings	SS316 powered metal/B783 (fluorocarbon coating)	
10. Side discs	SS316/A276	
12. Panel nut	SS316/A276	Brass C3604
13. Body	SS316/A276 or A479	

- Note : 1. Wetted parts and lubricants are listed in red.
- 2. Lubricant is Fluorinated-based. Lubricants are available for a specific application.

Operation & Packing Adjustment

- Valves are designed to control fluid in full open and closed position; using valves to throttle the flow may reduce the valve life.
- Valves that have not been actuated for a period of time may have a higher initial actuation torque.
- Every valve working pressure is adjusted for factory test at 1,000 psig (68.9 bar) @ 21°C (70°F). For use in higher pressure or lower temperature range, the valve packing may be required for re-adjustment.
- Packing adjustment may be required during the valve in service.

Application

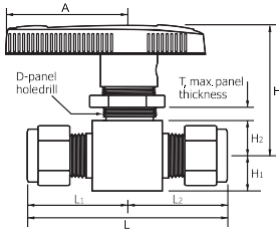
- Analytical market requiring a valve with lowest dead volume to prevent fluid entrapment which can cause contamination.
- Control Sampling Systems, and Process Instrumentation market requiring a valve with compact size, high flow capacity and directional indication of flow.

Factory Test and Packaging

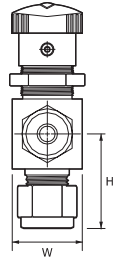
- Every valve is factory tested with nitrogen gas at 1,000 psig (68.9 bar) for leakage at seat to a maximum allowable leak rate of 0.1 SCCM. The packing is tested with nitrogen gas for no detectable leakage.
- Every valve is cleaned and packaged.

2-way On-off Valves

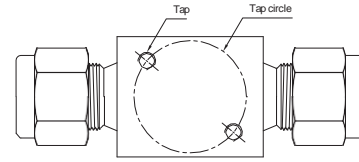
In-line pattern



Angle pattern



Bottom mounting option (In-line Only)



Size	Tap	Tap Depth	Tap circle
BV3	M5x0.8 P	5.0 mm (0.2 in.)	Ø28.7 mm (1.13 in.)
BV4			Ø38.1 mm (1.5 in.)

Valve Series		Working Pressure		Temp. Range
In-line	Angle	psig	bar	
BV1, BV3, BV4	BV1-A, BV2-A	2500	172	10°C to 65°C 50°F to 150°F
BV2	-	3000	206	
-	BV3-A, BV4-A	1500	103	

Valve Series		Working Pressure		Temp. Range
In-line	Angle	psig	bar	
BVL1, BVL3, BVL4	BVL1-A, BVL2-A	2500	172	-54°C to 150°C -65°F to 302°F
BVL2	-	3000	206	
-	BVL3-A, BVL4-A	1500	103	

Valve Series		Working Pressure		Temp. Range
In-line	Angle	psig	bar	
BVT1, BVT3, BVT4	BVT1-A, BVT2-A	2500	172	-54°C to 150°C -65°F to 302°F
BVT2	-	3000	206	
-	BVT3-A, BVT4-A	1500	103	

Ordering Information and Table of Dimensions

Basic Ordering Number	End Connections		Orifice		Cv		Dimensions mm (in.)										
	Inlet	Outlet	mm	in.	Inline	Angle	L	L1	L2	H3	H2	H1	A	T [⊕]	D	H	W
BV1- (BVT1)	C-1/16	1/16" Compression	1.3	0.052	0.1	-	42.7(1.68)	21.3(0.84)	21.3(0.84)	-	8.6(0.34)	7.1(0.28)	28.4(1.12)	6.4(1/4)	15.1(19/32)	34.5(1.36)	14.7(0.58)
	C-1/8	1/8" Compression	2.4	0.093	0.2	0.15	51.1(2.01)	25.7(1.01)	25.7(1.01)	24.6(0.97)	8.6(0.34)	7.1(0.28)	28.4(1.12)	6.4(1/4)	15.1(19/32)	34.5(1.36)	14.7(0.58)
	C-3M	3mm Compression	2.4	0.093	0.2	0.15	51.1(2.01)	25.7(1.01)	25.7(1.01)	24.6(0.97)	8.6(0.34)	7.1(0.28)	28.4(1.12)	6.4(1/4)	15.1(19/32)	34.5(1.36)	14.7(0.58)
	C-1/4	1/4" Compression	3.2	0.125	0.6	0.35	56.1(2.21)	27.9(1.10)	27.9(1.10)	27.2(1.07)	8.6(0.34)	7.1(0.28)	28.4(1.12)	6.4(1/4)	15.1(19/32)	34.5(1.36)	14.7(0.58)
	C-6M	6mm Compression	3.2	0.125	0.6	0.35	56.1(2.21)	27.9(1.10)	27.9(1.10)	27.2(1.07)	8.6(0.34)	7.1(0.28)	28.4(1.12)	6.4(1/4)	15.1(19/32)	34.5(1.36)	14.7(0.58)
	F-1/8	1/8" Female NPT	3.2	0.125	0.5	0.3	41.1(1.62)	20.6(0.81)	20.6(0.81)	20.6(0.81)	8.6(0.34)	7.1(0.28)	28.4(1.12)	6.4(1/4)	15.1(19/32)	34.5(1.36)	14.7(0.58)
BV2- (BVT2)	C-1/4	1/4" Compression	4.8	0.187	1.4	0.9	59.9(2.36)	30.0(1.18)	30.0(1.18)	29.7(1.17)	11.2(0.44)	9.7(0.38)	38.9(1.53)	4.8(3/16)	19.8(25/32)	39.6(1.56)	19.8(0.78)
	C-3/8	3/8" Compression	4.8	0.187	1.5	0.9	65.5(2.58)	32.8(1.29)	32.8(1.29)	32.8(1.29)	11.2(0.44)	9.7(0.38)	38.9(1.53)	4.8(3/16)	19.8(25/32)	39.6(1.56)	19.8(0.78)
	C-6M	6mm Compression	4.8	0.187	1.4	0.9	60.7(2.39)	30.5(1.20)	30.5(1.20)	29.7(1.17)	11.2(0.44)	9.7(0.38)	38.9(1.53)	4.8(3/16)	19.8(25/32)	39.6(1.56)	19.8(0.78)
	C-8M	8mm Compression	4.8	0.187	1.5	0.9	62.5(2.46)	31.2(1.23)	31.2(1.23)	30.5(1.20)	11.2(0.44)	9.7(0.38)	38.9(1.53)	4.8(3/16)	19.8(25/32)	39.6(1.56)	19.8(0.78)
	F-1/8	1/8" Female NPT	4.8	0.187	1.2	0.7	50.8(2.00)	25.4(1.00)	25.4(1.00)	25.4(1.00)	11.2(0.44)	9.7(0.38)	38.9(1.53)	4.8(3/16)	19.8(25/32)	39.6(1.56)	19.8(0.78)
	F-1/4	1/4" Female NPT	4.8	0.187	0.9	0.75	52.3(2.06)	26.2(1.03)	26.2(1.03)	26.2(1.03)	11.2(0.44)	9.7(0.38)	38.9(1.53)	4.8(3/16)	19.8(25/32)	39.6(1.56)	19.8(0.78)
	M-1/4	1/4" Male NPT	4.8	0.187	1.2	0.75	50.8(2.00)	25.4(1.00)	25.4(1.00)	26.2(1.03)	11.2(0.44)	9.7(0.38)	38.9(1.53)	4.8(3/16)	19.8(25/32)	39.6(1.56)	19.8(0.78)
	FI-1/4	1/4" ISO Female Tapered	4.8	0.187	0.9	-	52.3(2.06)	26.2(1.03)	26.2(1.03)	-	11.2(0.44)	9.7(0.38)	38.9(1.53)	4.8(3/16)	19.8(25/32)	39.6(1.56)	19.8(0.78)
BV3	C-3/8	3/8" Compression	7.1	0.281	6.0	2.0	77.5(3.05)	38.6(1.52)	38.6(1.52)	38.2(1.5)	14.2(0.56)	14.2(0.56)	50.8(2.00)	9.5(3/8)	28.6(1-1/8)	52.6(2.07)	28.4(1.12)
	C-10M	10mm Compression	7.1	0.281	6.0	2.0	78.0(3.07)	38.9(1.53)	38.9(1.53)	39(1.53)	14.2(0.56)	14.2(0.56)	50.8(2.00)	9.5(3/8)	28.6(1-1/8)	52.6(2.07)	28.4(1.12)
	F-1/4	1/4" Female NPT	7.1	0.281	3.0	1.7	63.5(2.50)	31.8(1.25)	31.8(1.25)	31.8(1.25)	14.2(0.56)	14.2(0.56)	50.8(2.00)	9.5(3/8)	28.6(1-1/8)	52.6(2.07)	28.4(1.12)
	F-3/8	3/8" Female NPT	7.1	0.281	2.6	1.5	63.5(2.50)	31.8(1.25)	31.8(1.25)	31.8(1.25)	14.2(0.56)	14.2(0.56)	50.8(2.00)	9.5(3/8)	28.6(1-1/8)	52.6(2.07)	28.4(1.12)
	FI-3/8	3/8" ISO Female Tapered	7.1	0.281	2.6	-	63.5(2.50)	31.8(1.25)	31.8(1.25)	-	14.2(0.56)	14.2(0.56)	50.8(2.00)	9.5(3/8)	28.6(1-1/8)	52.6(2.07)	28.4(1.12)
BV4-	C-1/2	1/2" Compression	10.3	0.406	12.0	4.6	99.6(3.92)	49.8(1.96)	49.8(1.96)	49.8(1.96)	17.5(0.69)	17.5(0.69)	76.2(3.00)	9.5(3/8)	38.1(1-1/2)	66.3(2.61)	38.1(1.50)
	C-3/4	3/4" Compression	10.3	0.406	6.4	3.8	99.6(3.92)	49.8(1.96)	49.8(1.96)	49.5(1.94)	17.5(0.69)	17.5(0.69)	76.2(3.00)	9.5(3/8)	38.1(1-1/2)	66.3(2.61)	38.1(1.50)
	C-12M	12mm Compression	9.5	0.375	12.0	4.6	99.6(3.92)	49.8(1.96)	49.8(1.96)	48.7(1.91)	17.5(0.69)	17.5(0.69)	76.2(3.00)	9.5(3/8)	38.1(1-1/2)	66.3(2.61)	38.1(1.50)
	F-1/2	1/2" Female NPT	10.3	0.406	6.3	3.5	79.2(3.12)	39.6(1.56)	39.6(1.56)	39.6(1.56)	17.5(0.69)	17.5(0.69)	76.2(3.00)	9.5(3/8)	38.1(1-1/2)	66.3(2.61)	38.1(1.50)
	FI-1/2	1/2" ISO Female Tapered	10.3	0.406	6.3	-	79.2(3.12)	39.6(1.56)	39.6(1.56)	-	17.5(0.69)	17.5(0.69)	76.2(3.00)	9.5(3/8)	38.1(1-1/2)	66.3(2.61)	38.1(1.50)

3-way Switching Valves

Technical Data for V82 Series with Standard PTFE Seat

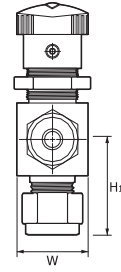
Valve Series 3-way	Working Pressure		Temp. Range
	psig	bar	
BV31, BV32	2500	172	10°C to 65°C 50°F to 150°F
BV33, BV34	1500	103	

Technical Data for VL82 Series with Standard PFA Seat

Valve Series 3-way	Working Pressure		Temp. Range
	psig	bar	
BVL31 BVL32	2500	172	-54°C to 65°C -65°F to 150°F
BVL33 BVL34	1500	103	

Technical Data for VG82 Series with Integrated PFA Seat

Valve Series 3-way	Working Pressure		Temp. Range
	psig	bar	
BVT31, BVT32	2500	172	-54°C to 150°C -65°F to 302°F
BVT33, BVT34	1500	103	



① min. panel thickness :
3.2mm(1/8inch)

Ordering Information and Table of Dimensions

Basic Ordering Number	End Connections		Orifice		Cv	Dimensions mm (in.)								
	Inlet	Outlet	mm	in.		L	L1	H1	H2	A	T ^①	D	H	W
BV31- (BV1)	C-1/16	1/16" Compression	1.3	0.052	0.1	42.7(1.68)	21.3(0.84)	20.6(0.81)	8.6(0.34)	28.7(1.13)	6.4(1/4)	15.0(19/32)	34.5(1.36)	14.7(0.58)
	C-1/8	1/8" Compression	2.4	0.093	0.2	51.1(2.01)	25.7(1.01)	24.6(0.97)	8.6(0.34)	28.7(1.13)	6.4(1/4)	15.0(19/32)	34.5(1.36)	14.7(0.58)
	C-3M	3mm Compression	2.4	0.093	0.2	56.1(2.21)	27.9(1.10)	27.2(1.07)	8.6(0.34)	28.7(1.13)	6.4(1/4)	15.0(19/32)	34.5(1.36)	14.7(0.58)
	C-1/4	1/4" Compression	3.2	0.125	0.6	51.1(2.01)	25.7(1.01)	24.6(0.97)	8.6(0.34)	28.7(1.13)	6.4(1/4)	15.0(19/32)	34.5(1.36)	14.7(0.58)
	C-6M	6mm Compression	3.2	0.125	0.6	56.1(2.21)	27.9(1.10)	27.2(1.07)	8.6(0.34)	28.7(1.13)	6.4(1/4)	15.0(19/32)	34.5(1.36)	14.7(0.58)
	F-1/8	1/8" Female NPT	3.2	0.125	0.5	41.4(1.63)	20.6(0.81)	20.6(0.81)	8.6(0.34)	28.7(1.13)	6.4(1/4)	15.0(19/32)	34.5(1.36)	14.7(0.58)
BV32- (BV2)	C-1/4	1/4" Compression	4.8	0.187	1.4	60.7(2.39)	30.5(1.20)	29.7(1.17)	11.2(0.44)	38.9(1.53)	4.8(3/16)	19.8(25/32)	39.6(1.56)	19.8(0.78)
	C-6M	6mm Compression	4.8	0.187	1.4	60.7(2.39)	30.5(1.20)	29.7(1.17)	11.2(0.44)	38.9(1.53)	4.8(3/16)	19.8(25/32)	39.6(1.56)	19.8(0.78)
	C-8M	8mm Compression	4.8	0.187	1.5	62.5(2.46)	31.2(1.23)	30.5(1.20)	11.2(0.44)	38.9(1.53)	4.8(3/16)	19.8(25/32)	39.6(1.56)	19.8(0.78)
	F1/4	1/4" Female NPT	4.8	0.187	0.9	52.3(2.06)	26.2(1.03)	26.2(1.03)	11.2(0.44)	38.9(1.53)	4.8(3/16)	19.8(25/32)	39.6(1.56)	19.8(0.78)
	FI-1/4	1/4"ISO Female Tapered	4.8	0.187	0.9	52.3(2.06)	26.2(1.03)	26.2(1.03)	11.2(0.44)	38.9(1.53)	4.8(3/16)	19.8(25/32)	39.6(1.56)	19.8(0.78)
BV33	C-3/8	3/8" Compression	7.1	0.281	6.0	73.4(2.89)	36.8(1.45)	36.3(1.43)	14.2(0.56)	50.8(2.00)	9.7(3/8)	28.7(1-1/8)	52.6(2.07)	28.4(1.12)
	C-10M	10mm Compression	7.1	0.281	6.0	78(3.07)	39(1.53)	39(1.53)	14.2(0.56)	50.8(2.00)	9.7(3/8)	28.7(1-1/8)	52.6(2.07)	28.4(1.12)
	F-1/4	1/4" Female NPT	7.1	0.281	3.0	63.5(2.50)	31.8(1.25)	31.8(1.25)	14.2(0.56)	50.8(2.00)	9.7(3/8)	28.7(1-1/8)	52.6(2.07)	28.4(1.12)
	F-3/8	3/8" Female NPT	7.1	0.281	2.6	63.5(2.50)	31.8(1.25)	31.8(1.25)	14.2(0.56)	50.8(2.00)	9.7(3/8)	28.7(1-1/8)	52.6(2.07)	28.4(1.12)
	FI-3/8	3/8"ISO Female Tapered	7.1	0.281	2.6	63.5(2.50)	31.8(1.25)	31.8(1.25)	14.2(0.56)	50.8(2.00)	9.7(3/8)	28.7(1-1/8)	52.6(2.07)	28.4(1.12)
BV34	C-1/2	1/2" Compression	10.3	0.406	12.0	88.4(3.48)	44.2(1.74)	44.2(1.74)	17.5(0.69)	76.2(3.00)	9.7(3/8)	38.1(1-1/2)	66.3(2.61)	38.1(1.50)
	C-3/4	3/4" Compression	10.3	0.406	6.4	88.4(3.48)	44.2(1.74)	44.2(1.74)	17.5(0.69)	76.2(3.00)	9.7(3/8)	38.1(1-1/2)	66.3(2.61)	38.1(1.50)
	C-12M	12mm Compression	9.5	0.375	12.0	86.5(3.40)	43.2(1.70)	43.2(1.70)	17.5(0.69)	76.2(3.00)	9.7(3/8)	38.1(1-1/2)	66.3(2.61)	38.1(1.50)
	F-1/2	1/2" Female NPT	10.3	0.406	6.3	79.5(3.13)	39.6(1.56)	39.6(1.56)	17.5(0.69)	76.2(3.00)	9.7(3/8)	38.1(1-1/2)	66.3(2.61)	38.1(1.50)
	FI-1/2	1/2"ISO Female Tapered	10.3	0.406	6.3	79.5(3.13)	39.6(1.56)	39.6(1.56)	17.5(0.69)	76.2(3.00)	9.7(3/8)	38.1(1-1/2)	66.3(2.61)	38.1(1.50)

All dimensions shown are for reference only and are subject to change. Dimensions with Dk-Lok nuts are in finger-tight position.

Flow Data

2-way

Cv	Water US GPM (L/min).			Air SCFM (NL/min.)		
	@21°C (70°F)			@21°C (70°F)		
	Pressure Drop to Atmosphere (Δp) psi (bar)					
	10(0.7)	50 (3.5)	100 (7.0)	10 (0.7)	50 (3.5)	100 (7.0)
0.1	0.3(1.1)	0.7(2.6)	1.0(3.8)	1.1(31)	3.0(85)	5.3(150)
0.2	0.6(2.3)	1.4(5.3)	2.0(7.6)	2.3(76)	6.0(215)	11.0(396)
0.5	1.6(5.7)	3.5(13.2)	5.0(18.9)	5.6(195)	15.0(538)	27.0(963)
0.6	1.9(7.2)	4.2(15.9)	6.0(22.7)	6.8(235)	18.0(651)	32.0(1161)
0.9	2.8(10.6)	6.4(23.8)	9.0(34.0)	10.0(340)	27.0(963)	48.0(1720)
1.2	3.8(14.0)	8.5(31.8)	12.0(45.4)	14.0(481)	36.0(1303)	64.0(2294)
1.5	4.7(17.8)	11.0(41.6)	15.0(56.8)	17.0(595)	45.0(1614)	80.0(2832)
2.4	7.6(28.4)	17.0(64.3)	24.0(90.8)	27.0(935)	72.0(2606)	120.0(4531)
2.6	8.2(31.0)	18.0(68.1)	26.0(98.4)	29.0(1020)	78.0(2804)	140.0(5098)
3.0	9.5(35.6)	21.2(79.5)	30.0(113.6)	34.0(1189)	90.0(3115)	160.0(5664)
6.0	19.0(71.9)	42.0(159.0)	60.0(227.1)	68.0(2351)	180.0(6514)	320.0(11611)
6.3	19.9(75.5)	44.5(170.3)	63.0(237.0)	71.0(2464)	190.0(6797)	340.0(12178)
6.4	20.2(75.7)	45.3(170.3)	64.0(242.2)	72.0(2520)	190.0(6797)	340.0(12178)
12.0	37.9(143.8)	84.9(321.7)	120.0(454.2)	130.0(4814)	360.0(13027)	640.0(22939)

2-way angle pattern and 3-way

Cv	Water US GPM (L/min).			Air SCFM (NL/min.)		
	@21°C (70°F)			@21°C (70°F)		
	Pressure Drop to Atmosphere (Δp) psi (bar)					
	10(0.7)	50(3.5)	100(7.0)	10(0.7)	50(3.5)	100(7.0)
0.08	0.3(1.1)	0.6(2.3)	0.8(3.0)	0.9(26)	2.4(68)	4.3(122)
0.15	0.4(1.5)	1.0(3.8)	1.5(5.7)	1.7(57)	4.5(161)	8.0(286)
0.30	0.9(3.4)	2.1(7.9)	3.0(11.4)	3.4(116)	9.0(312)	16.0(566)
0.35	1.1(4.2)	2.4(9.1)	3.5(13.2)	4.0(136)	10.0(368)	19.0(680)
0.75	2.3(8.7)	5.3(20.1)	7.5(28.4)	8.5(283)	22.0(821)	40.0(1444)
0.80	2.5(9.5)	5.6(21.2)	8.0(30.3)	9.0(312)	24.0(878)	42.0(1529)
0.90	2.8(10.6)	6.3(23.8)	9.0(34.1)	10.0(340)	27.0(963)	48.0(1728)
1.5	4.7(17.8)	11.0(41.6)	15.0(56.8)	17.0(595)	45.0(1614)	80.0(2832)
1.7	5.3(20.1)	12.0(45.4)	17.0(64.3)	19.0(680)	51.0(1841)	90.0(3115)
2.0	6.3(23.8)	14.0(53.0)	20.0(75.7)	22.0(793)	60.0(2181)	100.0(3965)
3.5	11.0(41.6)	25.0(94.6)	35.0(132.5)	39.0(1359)	100.0(3682)	180.0(6797)
3.8	12.0(45.4)	27.0(102.2)	38.0(143.8)	43.0(1501)	110.0(3965)	200.0(7363)
4.6	15.0(56.8)	33.0(124.9)	46.0(174.1)	52.0(1812)	140.0(5098)	240.0(8779)

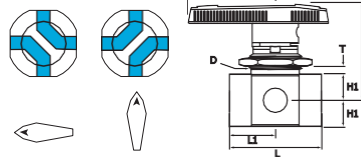
V824 Crossover 4-way Ball Valves

Features

- Crossover of two streams
- Mechanical stop ensures positive port positioning

Technical Data with standard PTFE, PFA and integrated PFA seat

Valve Series	Pressure Rating		SEAT material	Temperature Range
	psig	bar		
BV41	2500	172	PTFE	10°C to 65°C 50°F to 150°F
BV42	1500	103		
BVL41	2500	172	PFA	-54°C to 65°C -65°F to 150 °F
BVL42	1500	103		
BVT41	2500	172	Integrated PFA	-54°C to 150°C -65°F to 302°F
BVT42	1500	103		



Ordering Information and Table of Dimensions

Ordering Number	End Connection	Cv	Orifice		Dimensions, mm(in.)							
			mm	in.	L	L1	H1	A	T*	D	H	
B(L, T)V41-	F2N-S	1/8 in. Female NPT	0.08	1.6	0.062	39.4 (1.55)	19.8 (0.78)	11.2 (0.44)	38.9 (1.53)	4.8 (3/16)	23.1 (29/32)	42.7 (1.68)
V(L, T)V42-	F8N-S	1/2 in. Female NPT	1.6	7.1	0.281	79.5 (3.13)	39.6 (1.56)	17.5 (0.69)	76.2 (3.00)	9.7 (3/8)	38.1 (1 1/2)	61.7 (2.43)

T* indicates maximum panel thickness D : Panel Hole

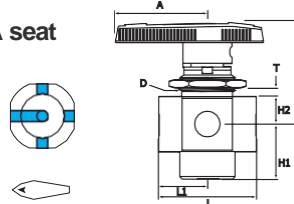
V825 Switching 5-way Ball Valves

Features

- Flow switches from a single port to multiple ports or from multiple ports to a single port.
- Spring-loaded detent ensures exact port positioning.

Technical Data with standard PTFE, PFA and integrated PFA seat

Valve Series	Pressure Rating		SEAT material	Temperature Range
	psig	bar		
BV51	2500	172	PTFE	10°C to 65°C 50°F to 150°F
BV52	1500	103		
BVL51	2500	172	PFA	-54°C to 65°C -65°F to 150 °F
BVL52	1500	103		
BVT51	2500	172	Integrated PFA	-54°C to 150°C -65°F to 302°F
BVT52	1500	103		



Ordering Information and Table of Dimensions

Ordering Number	End Connection	Cv	Orifice		Dimensions, mm(in.)								
			mm	in.	L	L1	H1	H2	A	T*	D	H	
B(L, T)V51-	F2N-S	1/8 in. Female NPT	0.07	1.6	0.062	39.4	19.8	22.4	38.9	38.9	4.1 (5/32)	23.1	42.9
	F2G-S	1/8 in. ISO Parallel Threads				(1.94)	(0.78)	(0.88)	(1.53)	(1.53)	(29/32)	(1.69)	
B(L, T)V52-	F8N-S	1/2 in. Female NPT	3.5	10.3	0.406	79.5 (3.13)	39.6 (1.56)	17.5 (0.69)	76.2 (3.00)	76.2 (3.00)	9.7 (3/8)	38.1 (1 1/2)	61.7 (2.43)

T* indicates the maximum panel thickness. 3.2 mm (1/8 in.) minimum panel thickness. D : Panel Hole

Handle Options

Aluminum Bar
Add-AH to the valve ordering number.



Stainless Bar
Add-BH to the valve ordering number.

How to Order

Select applicable valve pattern, options and body material from designators listed below.

-A	-NL	-AH	-B
2-way	Bottom mounting	Valve with no lubricant	Bar handle
A : 2-way angle pattern	TM : Bottom mounting Note : Bottom mounting option is applicable only to the in-line pattern 2-way valves.	NL : No lubricant Valve Note : Valve with no lubricant is factory tested at 200 psig (13 bar). This valve pressure rating is 200 psig (13 bar).	Nil : Standard Nylon handle AH : Aluminum bar handle BH : Stainless bar handle
			Body material S : SS316 B : Brass