

General Description

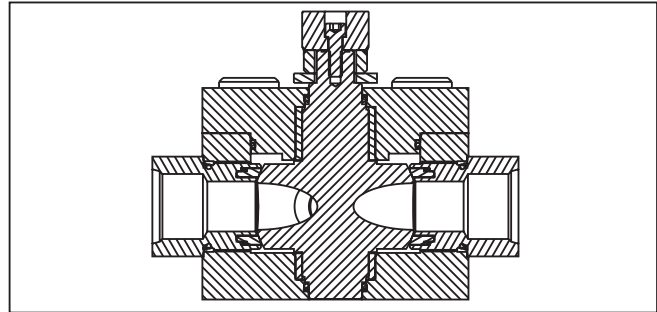
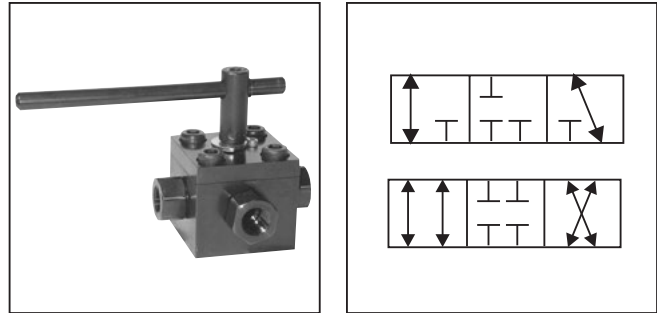
Series BV3H and BV4H are true 3-way and 4-way high pressure valves, incorporating many of the advanced features of the 2-way product. These products come in steel and are rated at 414 Bar (6000 PSI). Ports range from 1/4" to 2" with a variety of porting options.

Operation

Series BV3H operates by rotating the handle 90° and BV4H operates through 180° rotation of the handle, depending on the flow path. A BV4H with ball #4 is 90° operation.

Specifications

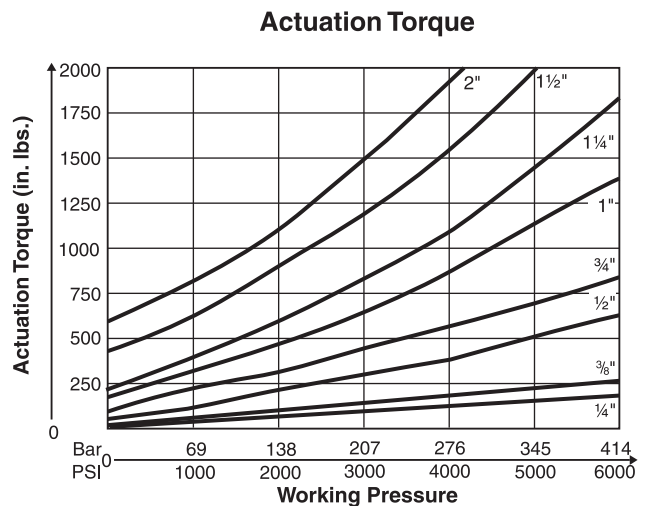
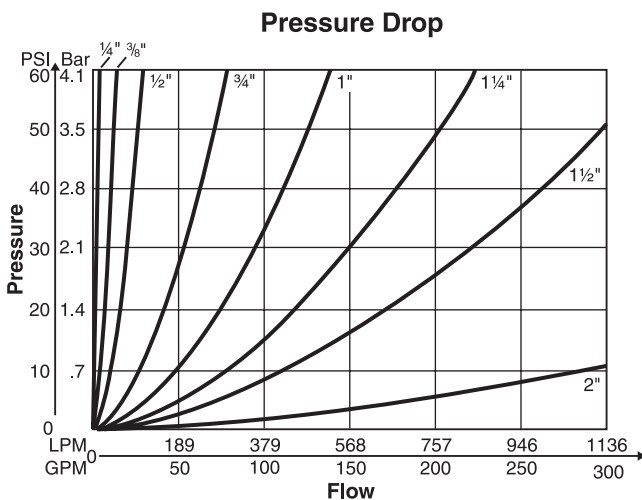
Maximum Pressure	414 Bar (6000 PSI)
Body Material	Carbon Steel, Black Oxide Stainless Steel
Ball Material	Steel, Chrome Plated, Trunnion mount
Standard Pattern	"L" Bore (3W), "T" Bore (4W)
Spindle Material	Steel, Zinc Plated
Standard Handle	T-Type Handle
Standard Ball Seals	Delrin + MoS ₂
Standard Shaft Seals	O-Ring & Bearing Stacks
Temperature Range with Standard Seals	-30°C to +100°C (-22°F to +212°F)



Features

- Three dimensional balanced sealing for near zero leakage in any circuit.
- The unique thrust bearing spindle design reduces actuation torque and reduces the chance of the valve seizing when inactive for periods of time.
- Special seal design enables high port to port ΔP application suitability.
- A variety of ball patterns allows flexibility in many applications.

Performance Curves



WARNING: This product can expose you to chemicals including Lead, Nickel (Metallic), or 1,3-Butadiene which are known to the State of California to cause cancer, and Lead or 1,3-Butadiene which is known to the State of California to cause birth defects and other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Cat3300_02.indd, ddp, 04/19

□ Series	□ Size	□ Port	□ Ball Pattern	□ Body Material	□ Ball & Stem Material	□ Ball Seals	□ Shaft Seals	□ Options	□ □ □ □ Design Series NOTE: Not required when ordering.																																										
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr><th>Code</th><th>Description</th></tr> </thead> <tbody> <tr><td>BV3H</td><td>3-Way</td></tr> <tr><td>BV4H</td><td>4-Way</td></tr> </tbody> </table>	Code	Description	BV3H	3-Way	BV4H	4-Way	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr><th>Code</th><th>Size</th></tr> </thead> <tbody> <tr><td>04</td><td>1/4"</td></tr> <tr><td>06</td><td>3/8"</td></tr> <tr><td>08</td><td>1/2"</td></tr> <tr><td>12</td><td>3/4"</td></tr> <tr><td>16</td><td>1"</td></tr> <tr><td>20</td><td>1 1/4"</td></tr> <tr><td>24</td><td>1 1/2"</td></tr> <tr><td>32</td><td>2"</td></tr> </tbody> </table>	Code	Size	04	1/4"	06	3/8"	08	1/2"	12	3/4"	16	1"	20	1 1/4"	24	1 1/2"	32	2"					<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr><th>Code</th><th>Description</th></tr> </thead> <tbody> <tr><td>N</td><td>Nitrile</td></tr> <tr><td>V</td><td>Fluorocarbon</td></tr> <tr><td>E</td><td>EPR</td></tr> </tbody> </table>	Code	Description	N	Nitrile	V	Fluorocarbon	E	EPR		<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr><th>Code</th><th>Description</th></tr> </thead> <tbody> <tr><td>Omit</td><td>No Options</td></tr> <tr><td>A</td><td>Locking Handle</td></tr> <tr><td>★C</td><td>1-Way Limit Switch</td></tr> <tr><td>★K</td><td>1-Way Limit Switch w/Lock</td></tr> </tbody> </table> <p>★ When selecting this option, your ball valve will come with limit switch bracket, but does not include the switch. The switch is sold separately (Part #LSB)</p>	Code	Description	Omit	No Options	A	Locking Handle	★C	1-Way Limit Switch	★K	1-Way Limit Switch w/Lock	
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Weights

Code	BV3H		BV4H	
	kg	(lbs.)	kg	(lbs)
04	2.0	(4.5)	2.2	(4.75)
06	2.4	(5.25)	2.7	(6.0)
08	3.4	(7.5)	3.6	(8.0)
12	6.8	(15.0)	7.3	(16.0)
16	12.2	(27.0)	12.6	(27.75)
20	22.2	(49.0)	25.4	(56.0)
24	32.7	(72.0)	33.3	(73.5)
32	42.9	(94.5)	47.6	(105.0)

Multiway Manifold Mount Valve Porting Options

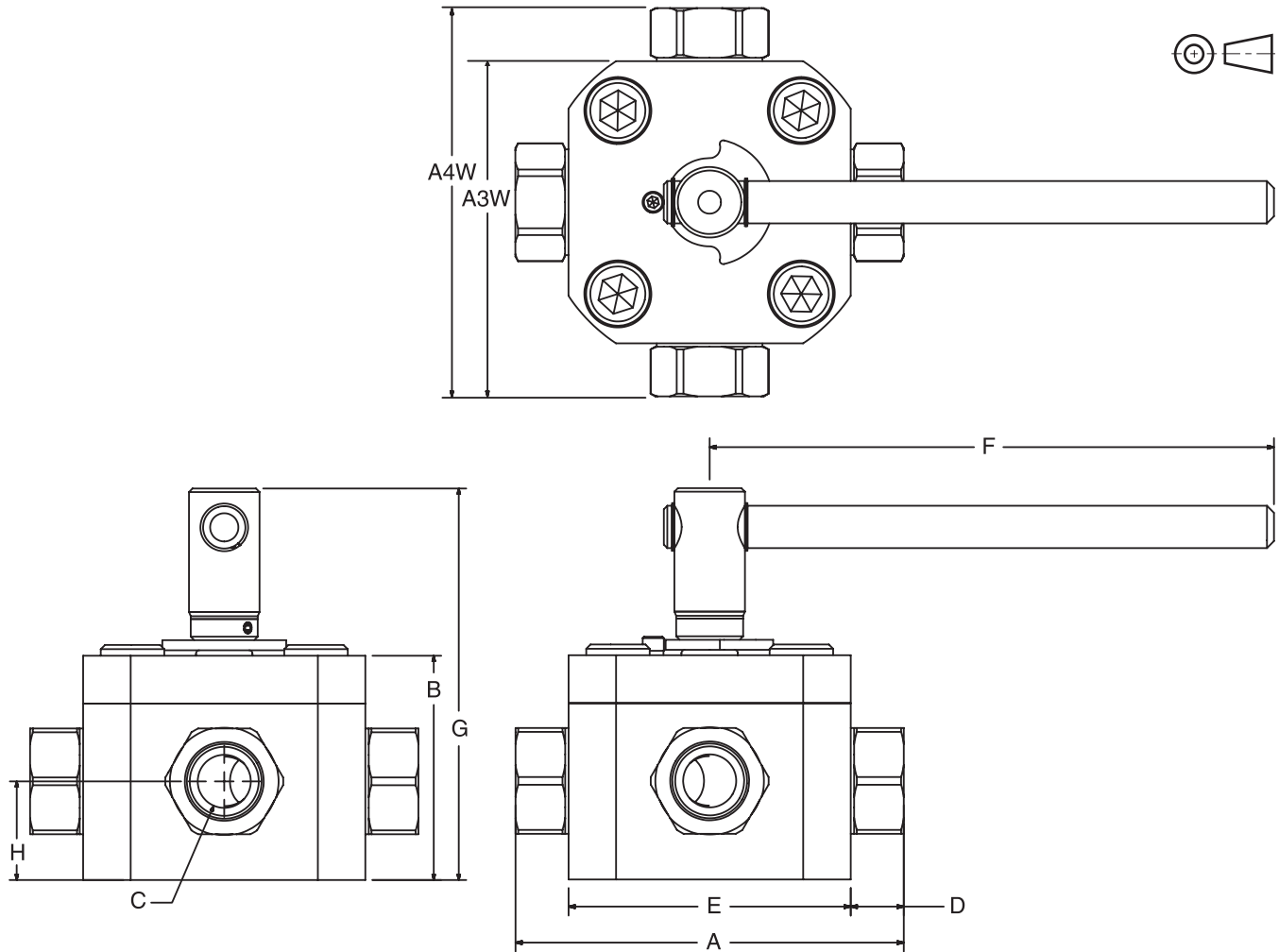
BV3H and BV4H valves are designed with no port-to-port overlap (see ISO symbols) during transition. See the table below to select the ball pattern ordering code.

Ball Code	ISO Circuit Symbol	Ball Pattern	Handle Phase					Stop Washer Type
			0°	45°	90°	135°	180°	
1		L-Bore 90° 3-Way Std.						
2		T-Bore 90° 3-Way Opt.						
3		T-Bore 180° 4-Way Std.						
4		X-Bore 90° 4-Way Opt.						

Replacement Handles Standard Steel Offset

Series	Part Number
BV*H04	BVH-HT1
BV*H06	BVH-HT1
BV*H08	BVH-HT1
BV*H12	BVH-HT2
BV*H16	BVH-HT2
BV*H20	BVH-HT3
BV*H24	BVH-HT3
BV*H32	BVH-HT3

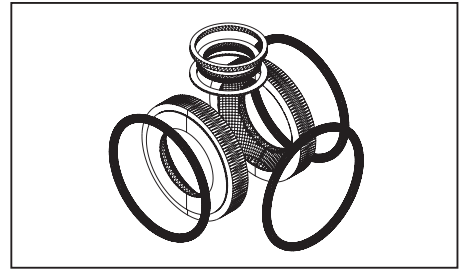
Threaded Ports



Code	Port Thread Size	Working Pressure	Dimensions mm (in)								
			A3W	A4W	B	C	D	E	F	G	H
BV3H/BV4H – NPT, SAE, and BSPP											
04	1/4"	414 Bar (6000 PSI)	78.2 (3.08)	90.4 (3.56)	64.3 (2.53)	7.9 (0.31)	12.2 (0.48)	63.5 (2.50)	177.8 (7.00)	122.2 (4.81)	31.0 (1.22)
06	3/8"	414 Bar (6000 PSI)	78.2 (3.08)	93.0 (3.66)	64.3 (2.53)	7.9 (0.31)	14.7 (0.58)	63.5 (2.50)	177.8 (7.00)	122.2 (4.81)	31.0 (1.22)
08	1/2"	414 Bar (6000 PSI)	95.5 (3.76)	115.1 (4.53)	69.9 (2.75)	11.2 (0.44)	19.9 (0.79)	76.2 (3.00)	177.8 (7.00)	129.0 (5.08)	33.8 (1.33)
12	3/4"	414 Bar (6000 PSI)	118.9 (4.68)	135.9 (5.35)	82.0 (3.23)	16.0 (0.63)	17.1 (0.68)	101.6 (4.00)	254.0 (10.00)	157.2 (6.19)	38.1 (1.50)
16	1"	414 Bar (6000 PSI)	150.9 (5.94)	174.8 (6.88)	101.1 (3.98)	22.4 (0.88)	23.9 (0.94)	127.0 (5.00)	254.0 (10.00)	176.3 (6.94)	50.8 (2.00)
20	1 1/4"	414 Bar (6000 PSI)	167.6 (6.60)	188.7 (7.43)	116.3 (4.58)	28.7 (1.13)	21.1 (0.83)	146.6 (5.77)	368.3 (14.50)	206.8 (8.14)	57.4 (2.26)
24	1 1/2"	414 Bar (6000 PSI)	209.3 (8.24)	234.2 (9.22)	129.0 (5.08)	33.3 (1.31)	25.0 (0.99)	184.2 (7.25)	368.3 (14.50)	219.5 (8.64)	58.9 (2.32)
32	2"	414 Bar (6000 PSI)	267.5 (10.53)	300.0 (11.81)	160.8 (6.33)	44.5 (1.75)	32.5 (1.28)	235.0 (9.25)	368.3 (14.50)	259.1 (10.20)	68.8 (2.71)

Ball Valve Seal Kits restore a ball valve to factory specifications, providing no erosion or metal-to-metal wear has taken place.

The Seal Kit includes all the o-rings, ball seals and thrust bearings that were originally installed at the factory. A sketch of these parts is provided at the right.



Ordering Information

