

# Control Ball Valve

## Quick Selection Guide

**Honeywell**



**Cover Every Application With  
One Control Ball Valve Brand**



## Honeywell's characterized control ball valves

feature a parabolic flow insert that's integral to the ball. Its unique construction enables a smoother flow curve and greater degree of rotation responsiveness. The result: more accurate flow rate with less wear and tear.

We've greatly simplified your selection process, too. Honeywell control ball valves use the same actuator mounting bracket for all 1/2" – 3" valves, whether spring or non-spring return actuators. And Honeywell's Cv ratings are similar to globe valve Cv ratings, making it easier to design your system using a ball valve.

Our new valve numbering system makes model selection a snap. Honeywell's complete line of actuators and valves are already proven in more than three million buildings worldwide. So specify Honeywell ball valves, and put a proven performer on every job.

- **Accurate flow control**

Parabolic flow inserts integral to the ball provide equal percentage control, which ensures linear heat transfer at the coil

- **Simplified actuator selection**

Multi-actuator mounting bracket allows the same bracket to be utilized on all valves

- **Save with lower-cost actuators**

Lower breakaway torque allows the use of more affordable actuators when valves need to be refitted

- **Built for safety and endurance**

- Blowout-proof stem withstands high pressure for safety
- NORYL<sup>®</sup> material used for parabolic inserts extends valve life and performance
- Optional NEMA 3R actuator enclosure for weatherproof applications

- **Packless, field replaceable stem**

Allows valve to be serviced and replaced on-pipe

- **Honeywell's control ball valve line has a large range of Cv's to meet all of your specified requirements.**

- **Flanged Control Ball Valve Offering**



## Model Number Specification

Example: **VCN2A001.30PA+MVN613A0000+C1**

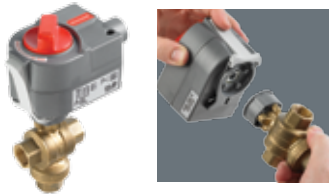
Control Ball Valve, Female NPT Thread, 2-way, 1/2", CV 1.00, Plated Brass, Standard Profile with MVN613A0000 Actuator, Fail-in-Place, 1 meter cable.

VB	N	2	A	001.30	P	A	+	MVN613A0000	+	C1	
Valve	Fitting	Body/ Flow Type	Size	CV	Trim	Profile		Actuator		Fail Safe Position	Accessories
<b>VB</b> - Ball valve	<b>N</b> - Female NPT threaded	<b>2</b> - 2-way <b>3</b> - 3-way	<b>A</b> - 1/2 (DN15) <b>B</b> - 3/4 (DN20) <b>C</b> - 1 (DN25) <b>D</b> - 1-1/4 (DN32) <b>E</b> - 1-1/2 (DN40) <b>F</b> - 2 (DN50) <b>G</b> - 2-1/2 (DN65) <b>H</b> - 3 (DN80)	<b>xxx.xx</b> - Cv Designator (VBN)	<b>P</b> - Plated Brass <b>S</b> - Stainless Steel	<b>A</b> - Standard Profile* <b>L</b> - Low Profile*		<b>Fail-in-Place</b> MVN613A0000 MVN613L0000 MVN643A0000 MVN643L0000 MVN713A0000 MVN713L0000 MN6105A1011 MN7505A2001 <b>Fail Safe</b> MS7505A2030 MS8105A1030		Fail-in-Place <b>FSO</b> - Fail Safe Open <b>FSC</b> - Fail Safe Closed <b>FSA</b> - Fail A-AB Open <b>FSB</b> - Fail B-AB Open  (Fail Safe Position only applies to MS actuators)	<b>C1</b> - 1 meter cable (for use with MVN actuators) <b>3R</b> - Enclosure (for use with MN and MS actuators)

\*Standard base provides clearance between valve and actuator for insulation.

\*\*Low profile enables installation of valve and actuator in tight spaces.

## Honeywell Actuators



### MVN Actuator

- Click-on assembly cuts installation time - no tools needed
- Position indicator shows the open or closed position of the stem or ball valve for easy commissioning
- Compact design saves space allowing installation in confined areas

See page 25 for more information.

**5-YEAR  
LIMITED  
WARRANTY**



### MS, MN Actuator Families

- Self centering shaft adaptor reduces installation time and provides greater clamping force
- Decreased material cost due to detachable access cover
- Reduce inventory and selection time with signal mode adaptor that adapts models to two position, floating and modulating applications



### NEMA 3R Enclosure

- (IP54) rated enclosure for outdoor applications

2-Way

Attribute	Specification		NPT Thread	ANSI Flange
	(Inch)	(DN)		
Valve Size			VBN2	VBF2
	0.5	15	•	
	0.75	20	•	
	1	25	•	
	1.25	32	•	
	1.5	40	•	
	2	50	•	
	2.5	65	•	
	3	80	•	
	4	100		•
	5	125		•
	6	150		•
Static Pressure	Class 125 (240 psi)			•
	360 psi		•	
Close-Off Pressure *	100 psi (min)		•	
	70 psi (min)			•
Media	Chilled Water (50% glycol max)		•	•
	Hot Water (50% glycol max)		•	•
Medium Temperature	Min -22°F / Max 250°F		•	•
Flow Characteristic	Equal Percentage		•	•
	Linear (full port valves)		•	
Maximum Seat Leakage	ANSI Class IV (0.01% of Cv max)		•	•
Rangeability	50:1 min ***		•	•
Trim	Nickel plated brass		•	
	Stainless steel		•	•
In-line Serviceability	Stem replacement kit		•	•
Actuator Options	Modulating 2-10 Vdc		•	•
	24 Vac Floating		•	•
	24 Vac 2-position		•	•
	Fail-Safe (FO/FC)		•	•
Accessories	Actuator Cable Assembly **		•	

\* Maximum operating differential pressure. Maximum differential pressure for quiet service may be lower.

\*\* On MVN actuators only. Available separately or factory installed.

\*\*\* Cv 0.38 and Cv 0.68 in 1/2" size, and Cv 0.31 and Cv 0.63 in 3/4" has less than 50:1 rangeability.

3-Way

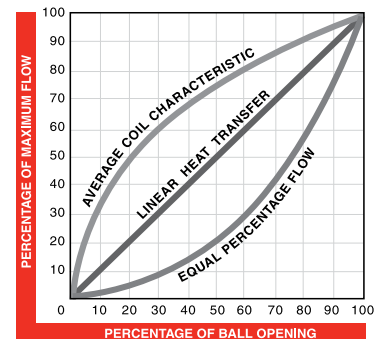
Attribute	Specification		NPT Thread	ANSI Flange
	(Inch)	(DN)		
Valve Size			VBN3	VBF3
	0.5	15	•	
	0.75	20	•	
	1	25	•	
	1.25	32	•	
	1.5	40	•	
	2	50	•	
	2.5	65	•	
	3	80	n/a	
	4	100		•
	5	125		•
	6	150		•
Static Pressure	Class 125 (240 psi)			•
	360 psi		•	
Close-Off Pressure *	40 psi (min)		•	
	70 psi (min)			•
Media	Chilled Water (50% glycol max)		•	•
	Hot Water (50% glycol max)		•	•
Medium Temperature	Min -22°F / Max 250°F		•	•
Flow Characteristic	Equal Percentage		•	•
	Linear (full port valves)		•	
Maximum Seat Leakage	ANSI Class IV (0.01% Cv max.)		•	A-port
	ANSI Class III (0.10% Cv max.)			B-port
Rangeability	Does not apply to 3-way valves			
Trim	Nickel plated brass		•	
	Stainless steel			•
In-line Serviceability	Stem replacement kit		•	•
Actuator Options	Modulating 2-10 Vdc		•	•
	24 Vac Floating		•	•
	24 Vac 2-position		•	•
	Fail-Safe (FO/FC)		•	•
Accessories	Actuator Cable Assembly **		•	

\* Maximum operating differential pressure. Maximum differential pressure for quiet service may be lower.

\*\* On MVN actuators only. Available separately or factory installed.

\*\*\* Cv 0.38 and Cv 0.68 in 1/2" size, and Cv 0.31 and Cv 0.63 in 3/4" has less than 50:1 rangeability.

The Parabolic Flow insert produces a smooth and responsive flow curve. The valve achieves an equal percentage flow characteristic resulting in linear heat transfer for optimal control. Unlike a disc that sits outside of the ball, the characterized insert is integral to the ball, resulting in longer service life and higher differential pressure capabilities.



## 2-Way Control Ball Valves With MVN Actuators 1/2"-1 1/4"



Example of complete orderable part number: **VBN2A000.38SA+MVN643A0000+C1**

Control Ball Valve, Female NPT Thread, 2-way, 1/2", CV .38, Stainless Steel, Standard Profile with MVN643A0000 Actuator, Fail-in-Place and 1 meter cable.

**5-YEAR  
LIMITED  
WARRANTY**

Standard profile provides clearance between valve and actuator for insulation.  
Low profile enables installation of valve and actuator in tight spaces.

If the complete orderable part number is too long for your ordering system, please refer to the Short Order Codes on pgs 10 to 21.

2-Way

Valve Specification		Valve Profile	Standard Profile		Low Profile	
Valve Size (inches)	Close-off Differential Pressure (psi)	Valve Trim	Plated Brass	Stainless Steel	Plated Brass	Stainless Steel
		Cv	Valve Body Model Number			
1/2"	130	0.38	VBN2A000.38PA	VBN2A000.38SA	VBN2A000.38PL	VBN2A000.38SL
		0.68	VBN2A000.68PA	VBN2A000.68SA	VBN2A000.68PL	VBN2A000.68SL
		1.3	VBN2A001.30PA	VBN2A001.30SA	VBN2A001.30PL	VBN2A001.30SL
		2	VBN2A002.00PA	VBN2A002.00SA	VBN2A002.00PL	VBN2A002.00SL
		2.6	VBN2A002.60PA	VBN2A002.60SA	VBN2A002.60PL	VBN2A002.60SL
		4.7	VBN2A004.70PA	VBN2A004.70SA	VBN2A004.70PL	VBN2A004.70SL
		8	VBN2A008.00PA	VBN2A008.00SA	VBN2A008.00PL	VBN2A008.00SL
		11.7	VBN2A011.70PA	VBN2A011.70SA	VBN2A011.70PL	VBN2A011.70SL
3/4"	130	0.31	VBN2B000.31PA	VBN2B000.31SA	VBN2B000.31PL	VBN2B000.31SL
		0.63	VBN2B000.63PA	VBN2B000.63SA	VBN2B000.63PL	VBN2B000.63SL
		1.2	VBN2B001.20PA	VBN2B001.20SA	VBN2B001.20PL	VBN2B001.20SL
		2.5	VBN2B002.50PA	VBN2B002.50SA	VBN2B002.50PL	VBN2B002.50PSL
		4.3	VBN2B004.30PA	VBN2B004.30SA	VBN2B004.30PL	VBN2B004.30SL
		7.4	VBN2B007.40PA	VBN2B007.40SA	VBN2B007.40PL	VBN2B007.40SL
		10.1	VBN2B010.10PA	VBN2B010.10SA	VBN2B010.10PL	VBN2B010.10SL
		14.7	VBN2B014.70PA	VBN2B014.70SA	VBN2B014.70PL	VBN2B014.70SL
1"	100	29	VBN2B029.00PA	VBN2B029.00SA	VBN2B029.00PL	VBN2B029.00SL
		4.4	VBN2C004.40PA	VBN2C004.40SA	VBN2C004.40PL	VBN2C004.40SL
		9	VBN2C009.00PA	VBN2C009.00SA	VBN2C009.00PL	VBN2C009.00SL
		15.3	VBN2C015.30PA	VBN2C015.30SA	VBN2C015.30PL	VBN2C015.30SL
		26	VBN2C026.00PA	VBN2C026.00SA	VBN2C026.00PL	VBN2C026.00SL
		44	VBN2C044.00PA	VBN2C044.00SA	VBN2C044.00PL	VBN2C044.00SL
1-1/4"	100	54	VBN2C054.00PA	VBN2C054.00SA	VBN2C054.00PL	VBN2C054.00SL
		4.4	VBN2D004.40PA	VBN2D004.40SA	VBN2D004.40PL	VBN2D004.40SL
		8.3	VBN2D008.30PA	VBN2D008.30SA	VBN2D008.30PL	VBN2D008.30SL
		14.9	VBN2D014.90PA	VBN2D014.90SA	VBN2D014.90PL	VBN2D014.90SL
		25	VBN2D025.00PA	VBN2D025.00SA	VBN2D025.00PL	VBN2D025.00SL
		37	VBN2D037.00PA	VBN2D037.00SA	VBN2D037.00PL	VBN2D037.00SL
		41	VBN2D041.00PA	VBN2D041.00SA	VBN2D041.00PL	VBN2D041.00SL
102	VBN2D102.00PA	VBN2D102.00SA	VBN2D102.00PL	VBN2D102.00SL		

Actuator Features						
MVN					Standard Profile	Low Profile
Actuator Type	Control Signal	Timing	Voltage	Enclosure	Actuator Model Number	
Fail-in-Place	Floating	90 sec.	24 VAC	NEMA 2	+MVN613A0000	+MVN613L0000
	Fast SPDT	30 sec.	24 VAC/DC		+MVN643A0000	+MVN643L0000
	Modulating	90 sec.	24 VAC/DC		+MVN713A0000	+MVN713L0000
Accessories	1 meter cable				+C1	

## 2-Way Control Ball Valves With Direct Coupled Actuators ½"-3"



Example of complete orderable part number: **VBN2E030.00SX+MN7505A2001**  
 Control Ball Valve, Female NPT Thread, 2-way, 1-1/2", CV 30, Black Bracket, Stainless Steel with  
 MN7505A2001 Actuator, Fail-in-Place.

**5-YEAR  
LIMITED  
WARRANTY**

If the complete orderable part number is too long for your ordering system, please refer to the Short Order Codes on pgs 10 to 21.

2-Way

Valve Specification		Valve Profile	Black Bracket	
		Valve Trim	Plated Brass	Stainless Steel
Valve Size (inches)	Close-off Differential Pressure (psi)	Cv	Valve Body Model Number	
1/2"	130	0.38	VBN2A000.38PX	VBN2A000.38SX
		0.68	VBN2A000.68PX	VBN2A000.68SX
		1.3	VBN2A001.30PX	VBN2A001.30SX
		2	VBN2A002.00PX	VBN2A002.00SX
		2.6	VBN2A002.60PX	VBN2A002.60SX
		4.7	VBN2A004.70PX	VBN2A004.70SX
		8	VBN2A008.00PX	VBN2A008.00SX
		11.7	VBN2A011.70PX	VBN2A011.70SX
3/4"	130	0.31	VBN2B000.31PX	VBN2B000.31SX
		0.63	VBN2B000.63PX	VBN2B000.63SX
		1.2	VBN2B001.20PX	VBN2B001.20SX
		2.5	VBN2B002.50PX	VBN2B002.50PSX
		4.3	VBN2B004.30PX	VBN2B004.30SX
		7.4	VBN2B007.40PX	VBN2B007.40SX
		10.1	VBN2B010.10PX	VBN2B010.10SX
		14.7	VBN2B014.70PX	VBN2B014.70SX
1"	100	29	VBN2B029.00PX	VBN2B029.00SX
		4.4	VBN2C004.40PX	VBN2C004.40SX
		9	VBN2C009.00PX	VBN2C009.00SX
		15.3	VBN2C015.30PX	VBN2C015.30SX
		26	VBN2C026.00PX	VBN2C026.00SX
		44	VBN2C044.00PX	VBN2C044.00SX
		54	VBN2C054.00PX	VBN2C054.00SX
		4.4	VBN2D004.40PX	VBN2D004.40SX
1-1/4"	100	8.3	VBN2D008.30PX	VBN2D008.30SX
		14.9	VBN2D014.90PX	VBN2D014.90SX
		25	VBN2D025.00PX	VBN2D025.00SX
		37	VBN2D037.00PX	VBN2D037.00SX
		41	VBN2D041.00PX	VBN2D041.00SX
		102	VBN2D102.00PX	VBN2D102.00SX
		23	VBN2E023.00PX	VBN2E023.00SX
		30	VBN2E030.00PX	VBN2E030.00SX
1-1/2"	100	41	VBN2E041.00PX	VBN2E041.00SX
		74	VBN2E074.00PX	VBN2E074.00SX
		172	VBN2E172.00PX	VBN2E172.00SX
		42	VBN2F042.00PX	VBN2F042.00SX
2"	100	57	VBN2F057.00PX	VBN2F057.00SX
		71	VBN2F071.00PX	VBN2F071.00SX
		100	VBN2F100.00PX	VBN2F100.00SX
		108	VBN2F108.00PX	VBN2F108.00SX
		210	VBN2F210.00PX	VBN2F210.00SX
		266	VBN2F266.00PX	VBN2F266.00SX
2-1/2"	100	45	VBN2G045.00PX	VBN2G045.00SX
		55	VBN2G055.00PX	VBN2G055.00SX
		72	VBN2G072.00PX	VBN2G072.00SX
		101	VBN2G101.00PX	VBN2G101.00SX
		162	VBN2G162.00PX	VBN2G162.00SX
		202	VBN2G202.00PX	VBN2G202.00SX
3"	100	49	VBN2H049.00PX	VBN2H049.00SX
		63	VBN2H063.00PX	VBN2H063.00SX
		82	VBN2H082.00PX	VBN2H082.00SX
		124	VBN2H124.00PX	VBN2H124.00SX
		145	VBN2H145.00PX	VBN2H145.00SX

Actuator Features					
Direct Coupled Actuators					
Actuator Type	Control Signal	Timing	Voltage	Enclosure	Model Number
Fail-in-Place	Floating	95 sec.	24 VAC/DC	NEMA 2	+MN6105A1011
Fail-in-Place	Modulating, Floating	95 sec.			+MN7505A2001
Fail Safe	Modulating, Floating	95 sec.			+MS7505A2030
Fail Safe	2-Position	95 sec.			+MS8105A1030
Fail Safe Position (MS actuators only - open, closed, A-AB, B-AB)	FSO - Fail Safe Open FSC - Fail Safe Closed				FSO or FSC
Accessories	3R enclosure				+3R

# 3-Way Control Ball Valves With MVN Actuators 1/2"-1 1/4"



Example of complete orderable part number: **VBN3A000.33PA+MVN613A0000+C1**  
 Control Ball Valve, Female NPT Thread, 3-way, 1-1/2", CV .33, Plated Brass, with MVN613A0000 Actuator, Fail-in-Place and 1 meter cable.

**5-YEAR  
 LIMITED  
 WARRANTY**

Standard profile provides clearance between valve and actuator for insulation.  
 Low profile enables installation of valve and actuator in tight spaces.

If the complete orderable part number is too long for your ordering system, please refer to the Short Order Codes on pgs 10 to 21.

3-Way

Valve Specification		Valve Profile	Standard Profile	Low Profile
		Valve Trim	Plated Brass	Plated Brass
Valve Size (Inches)	Close-off Differential Pressure (psi)	Cv	Valve Body Model Number	
1/2"	50	0.33	VBN3A000.33PA	VBN3A000.33PL
		0.59	VBN3A000.59PA	VBN3A000.59PL
		1	VBN3A001.00PA	VBN3A001.00PL
		2.4	VBN3A002.40PA	VBN3A002.40PL
		4.3	VBN3A004.30PA	VBN3A004.30PL
		8	VBN3A008.00PA	VBN3A008.00PL
3/4"	50	0.4	VBN3B000.40PA	VBN3B000.40PL
		0.66	VBN3B000.66PA	VBN3B000.66PL
		1.3	VBN3B001.30PA	VBN3B001.30PL
		2.4	VBN3B002.40PA	VBN3B002.40PL
		3.8	VBN3B003.80PA	VBN3B003.80PL
		7	VBN3B007.00PA	VBN3B007.00PL
		11	VBN3B011.00PA	VBN3B011.00PL
1"	50	0.4	VBN3C000.40PA	VBN3C000.40PL
		0.65	VBN3C000.65PA	VBN3C000.65PL
		1.3	VBN3C001.30PA	VBN3C001.30PL
		2.3	VBN3C002.30PA	VBN3C002.30PL
		3.5	VBN3C003.50PA	VBN3C003.50PL
		4.5	VBN3C004.50PA	VBN3C004.50PL
		8.6	VBN3C008.60PA	VBN3C008.60PL
		14.9	VBN3C014.90PA	VBN3C014.90PL
		22	VBN3C022.00PA	VBN3C022.00PL
		31	VBN3C031.00PA	VBN3C031.00PL
1-1/4"	40	4.1	VBN3D004.10PA	VBN3D004.10PL
		8.7	VBN3D008.70PA	VBN3D008.70PL
		12.7	VBN3D012.70PA	VBN3D012.70PL
		19.4	VBN3D019.40PA	VBN3D019.40PL
		27	VBN3D027.00PA	VBN3D027.00PL
		34	VBN3D034.00PA	VBN3D034.00PL

Actuator Features					Standard Profile	Low Profile
MVN					Actuator Model Number	
Actuator Type	Control Signal	Timing	Voltage	Enclosure		
Fail-in-Place	Floating	90 sec.	24 VAC	NEMA 2	+MVN613A0000	+MVN613L0000
	Fast SPDT	30 sec.	24 VAC/DC		+MVN643A0000	+MVN643L0000
	Modulating	90 sec.	24 VAC/DC		+MVN713A0000	+MVN713L0000
Accessories	1 meter cable				+C1	



# 3-Way Control Ball Valves With Direct Coupled Actuators 1/2"-2 1/2"



Example of complete orderable part number: **VBN3E032.00PX+MN7505A2001**  
 Control Ball Valve, Female NPT Thread, 3-way, 1-1/2", CV 32, Black Bracket, Plated Brass with MN7505A2001 Actuator, Fail-in-Place.

**5-YEAR  
 LIMITED  
 WARRANTY**

If the complete orderable part number is too long for your ordering system, please refer to the Short Order Codes on pgs 10 to 21.

3-Way

Valve Specification		Valve Profile	Black Bracket
		Valve Trim	Plated Brass
Valve Size (inches)	Close-off Differential Pressure (psi)	Cv	Valve Body Model Number
1/2"	50	0.33	VBN3A000.33PX
		0.59	VBN3A000.59PX
		1	VBN3A001.00PX
		2.4	VBN3A002.40PX
		4.3	VBN3A004.30PX
		8	VBN3A008.00PX
3/4"	50	0.4	VBN3B000.40PX
		0.66	VBN3B000.66PX
		1.3	VBN3B001.30PX
		2.4	VBN3B002.40PX
		3.8	VBN3B003.80PX
		7	VBN3B007.00PX
1"	50	11	VBN3B011.00PX
		0.4	VBN3C000.40PX
		0.65	VBN3C000.65PX
		1.3	VBN3C001.30PX
		2.3	VBN3C002.30PX
		3.5	VBN3C003.50PX
		4.5	VBN3C004.50PX
		8.6	VBN3C008.60PX
1-1/4"	40	14.9	VBN3C014.90PX
		22	VBN3C022.00PX
		31	VBN3C031.00PX
		4.1	VBN3D004.10PX
		8.7	VBN3D008.70PX
		12.7	VBN3D012.70PX
1-1/2"	40	19.4	VBN3D019.40PX
		27	VBN3D027.00PX
		34	VBN3D034.00PX
		4	VBN3E004.00PX
		8.3	VBN3E008.30PX
		13.4	VBN3E013.40PX
2"	100	24	VBN3E024.00PX
		32	VBN3E032.00PX
		61	VBN3E061.00PX
		24	VBN3F024.00PX
		38	VBN3F038.00PX
		57	VBN3F057.00PX
2-1/2"	100	83	VBN3F083.00PX
		109	VBN3F109.00PX
		38	VBN3G038.00PX
		74	VBN3G074.00PX
		100	VBN3G100.00PX

Actuator Features					
Direct Coupled Actuators					
Actuator Type	Control Signal	Timing	Voltage	Enclosure	Model Number
Fail-in-Place	Floating	95 sec.	24 VAC/DC	NEMA 2	+MN6105A1011
Fail-in-Place	Modulating, Floating	95 sec.			+MN7505A2001
Fail Safe	Modulating, Floating	95 sec.			+MS7505A2030
Fail Safe	2-Position	95 sec.			+MS8105A1030
Fail Safe Position (MS actuators only - open, closed, A-AB, B-AB)	FSA - A-AB Open FSB - B-AB Open				FSA or FSB
Accessories	3R enclosure				+3R

# MVN Actuator With Standard Profile, 2-Way NPT Valves 1/2"-1 1/4"

## Common Features

- Max static pressure 360 psi (250°F)
- Medium: Water/glycol solutions up to 50%. Use globe valves for steam control.
- Fluid temperature range: -22 to +250°F
- Spring return actuators field-configurable for A-port normally open or normally closed fail safe.

### VBN2 (Two-way)

- Equal % flow insert. Largest Cv rating in each valve size is full port, as noted
- Nickel-chrome plated brass or 316 stainless steel ball and stem
- ANSI class IV leakage (0.01% of Cv)



2-Way

Actuator Features		Non-Fail Safe				Valve Only	
Actuator O.S Number/ Short Order Code		MVN613A0000	MVN613A0000+C1	MVN613A0000	MVN613A0000+C1	N/A	N/A
Power Supply	Voltage	24 Vac	24 Vac	24 Vac	24 Vac		
	Frequency	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz		
	Power	1.5 VA	1.5 VA	1.5 VA	1.5 VA		
Actuator Torque (lb.-in.)	27	27	27	27			
Control	Modulating (0)2-10Vdc						
	Floating	•	•	•	•		
	Fast acting SPDT						
Fail Safe Action		Fail-in-Place	Fail-in-Place	Fail-in-Place	Fail-in-Place		
Actuator Stroke (degrees)		90 ±3	90 ±3	90 ±3	90 ±3		
Timing (seconds)		90	90	90	90		
Valve Features	Trim	Stainless Steel	Stainless Steel	Plated Brass	Plated Brass	Stainless Steel	Plated Brass

Valve Size (inches)	Cv	Close-off Pressure (psid)	Short Order Codes					
			No Cable	1 Meter Cable	No Cable	1 Meter Cable	Valve Only	
1/2"	0.38	130	VBN2ABSA1000	VBN2ABSA1001	VBN2ABPA1000	VBN2ABPA1001	VBN2ABSA0000	VBN2ABPA0000
	0.68		VBN2ADSA1000	VBN2ADSA1001	VBN2ADPA1000	VBN2ADPA1001	VBN2ADSA0000	VBN2ADPA0000
	1.3		VBN2AESA1000	VBN2AESA1001	VBN2AEP1000	VBN2AEP1001	VBN2AESA0000	VBN2AEP1000
	2		VBN2AFSA1000	VBN2AFSA1001	VBN2AFPA1000	VBN2AFPA1001	VBN2AFSA0000	VBN2AFPA0000
	2.6		VBN2AGSA1000	VBN2AGSA1001	VBN2AGPA1000	VBN2AGPA1001	VBN2AGSA0000	VBN2AGPA0000
	4.7		VBN2AHSA1000	VBN2AHSA1001	VBN2AHP1000	VBN2AHP1001	VBN2AHSA0000	VBN2AHP1000
	8		VBN2AJSA1000	VBN2AJSA1001	VBN2AJPA1000	VBN2AJPA1001	VBN2AJSA0000	VBN2AJPA0000
	11.7		VBN2AKSA1000	VBN2AKSA1001	VBN2AKPA1000	VBN2AKPA1001	VBN2AKSA0000	VBN2AKPA0000
3/4"	0.31	130	VBN2BBSA1000	VBN2BBSA1001	VBN2BBPA1000	VBN2BBPA1001	VBN2BBSA0000	VBN2BBPA0000
	0.63		VBN2BDSA1000	VBN2BDSA1001	VBN2BDPA1000	VBN2BDPA1001	VBN2BDSA0000	VBN2BDPA0000
	1.2		VBN2BESA1000	VBN2BESA1001	VBN2BEP1000	VBN2BEP1001	VBN2BESA0000	VBN2BEP1000
	2.5		VBN2BGSA1000	VBN2BGSA1001	VBN2BGPA1000	VBN2BGPA1001	VBN2BGSA0000	VBN2BGPA0000
	4.3		VBN2BHSA1000	VBN2BHSA1001	VBN2BHPA1000	VBN2BHPA1001	VBN2BHSA0000	VBN2BHPA0000
	7.4		VBN2BJS1000	VBN2BJS1001	VBN2BJPA1000	VBN2BJPA1001	VBN2BJS1000	VBN2BJPA0000
	10.1		VBN2BKSA1000	VBN2BKSA1001	VBN2BKPA1000	VBN2BKPA1001	VBN2BKSA0000	VBN2BKPA0000
	14.7		VBN2BLSA1000	VBN2BLSA1001	VBN2BLPA1000	VBN2BLPA1001	VBN2BLSA0000	VBN2BLPA0000
29*	VBN2BMSA1000	VBN2BMSA1001	VBN2BMPA1000	VBN2BMPA1001	VBN2BMSA0000	VBN2BMPA0000		
1"	4.4	100	VBN2CHSA1000	VBN2CHSA1001	VBN2CHPA1000	VBN2CHPA1001	VBN2CHSA0000	VBN2CHPA0000
	9		VBN2CJSA1000	VBN2CJSA1001	VBN2CJPA1000	VBN2CJPA1001	VBN2CJSA0000	VBN2CJPA0000
	15.3		VBN2CLSA1000	VBN2CLSA1001	VBN2CLPA1000	VBN2CLPA1001	VBN2CLSA0000	VBN2CLPA0000
	26		VBN2CMSA1000	VBN2CMSA1001	VBN2CMPA1000	VBN2CMPA1001	VBN2CMSA0000	VBN2CMPA0000
	44		VBN2CNSA1000	VBN2CNSA1001	VBN2CNPA1000	VBN2CNPA1001	VBN2CNSA0000	VBN2CNPA0000
	54		VBN2CPSA1000	VBN2CPSA1001	VBN2CPPA1000	VBN2CPPA1001	VBN2CPSA0000	VBN2CPPA0000
1-1/4"	4.4	100	VBN2DHSA1000	VBN2DHSA1001	VBN2DHPA1000	VBN2DHPA1001	VBN2DHSA0000	VBN2DHPA0000
	8.3		VBN2DJS1000	VBN2DJS1001	VBN2DJPA1000	VBN2DJPA1001	VBN2DJS1000	VBN2DJPA0000
	14.9		VBN2DKSA1000	VBN2DKSA1001	VBN2DKPA1000	VBN2DKPA1001	VBN2DKSA0000	VBN2DKPA0000
	25		VBN2DLSA1000	VBN2DLSA1001	VBN2DLPA1000	VBN2DLPA1001	VBN2DLSA0000	VBN2DLPA0000
	37		VBN2DMSA1000	VBN2DMSA1001	VBN2DMPA1000	VBN2DMPA1001	VBN2DMSA0000	VBN2DMPA0000
	41		VBN2DNSA1000	VBN2DNSA1001	VBN2DNPA1000	VBN2DNPA1001	VBN2DNSA0000	VBN2DNPA0000
	102		VBN2DSSA1000	VBN2DSSA1001	VBN2DSPA1000	VBN2DSPA1001	VBN2DSSA0000	VBN2DSPA0000

# MVN Actuator With Standard Profile 2-Way NPT Valves 1/2"-1 1/4"

Actuator Features		Non-Fail Safe								
Actuator O.S Number/ Short Order Code	MVN643A0000	MVN643A0000+C1	MVN643A0000	MVN643A0000+C1	MVN713A0000	MVN713A0000+C1	MVN713A0000	MVN713A0000+C1		
Power Supply	Voltage	24 Vac	24 Vac	24 Vac	24 Vac	24 Vac	24 Vac	24 Vac		
	Frequency	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz		
	Power	6 VA	6 VA	6 VA	6 VA	5 VA	5 VA	5 VA		
Actuator Torque	(lb.-in.)	27	27	27	27	27	27	27		
Control	Modulating (0)2-10Vdc					•	•	•		
	Floating									
	Fast acting SPDT	•	•	•	•					
Fail Safe Action	Fail-in-Place	Fail-in-Place	Fail-in-Place	Fail-in-Place	Fail-in-Place	Fail-in-Place	Fail-in-Place	Fail-in-Place		
Actuator Stroke (degrees)		90 ±3	90 ±3	90 ±3	90 ±3	90 ±3	90 ±3	90 ±3		
Timing	(seconds)	30	30	30	30	90	90	90		
Valve Features	Trim	Stainless Steel	Stainless Steel	Plated Brass	Plated Brass	Stainless Steel	Stainless Steel	Plated Brass		
Valve Size (inches)	Cv	Close-off Pressure (psid)	Short Order Codes							
			No Cable		1 Meter Cable		No Cable		1 Meter Cable	
			No Cable	1 Meter Cable	No Cable	1 Meter Cable	No Cable	1 Meter Cable	No Cable	1 Meter Cable
1/2"	0.38	130	VBN2ABSA2000	VBN2ABSA2001	VBN2ABPA2000	VBN2ABPA2001	VBN2ABSA3000	VBN2ABSA3001	VBN2ABPA3000	VBN2ABPA3001
	0.68		VBN2ADSA2000	VBN2ADSA2001	VBN2ADPA2000	VBN2ADPA2001	VBN2ADSA3000	VBN2ADSA3001	VBN2ADPA3000	VBN2ADPA3001
	1.3		VBN2AESA2000	VBN2AESA2001	VBN2AEPA2000	VBN2AEPA2001	VBN2AESA3000	VBN2AESA3001	VBN2AEPA3000	VBN2AEPA3001
	2		VBN2AFSA2000	VBN2AFSA2001	VBN2AFPA2000	VBN2AFPA2001	VBN2AFSA3000	VBN2AFSA3001	VBN2AFPA3000	VBN2AFPA3001
	2.6		VBN2AGSA2000	VBN2AGSA2001	VBN2AGPA2000	VBN2AGPA2001	VBN2AGSA3000	VBN2AGSA3001	VBN2AGPA3000	VBN2AGPA3001
	4.7		VBN2AHSA2000	VBN2AHSA2001	VBN2AHPA2000	VBN2AHPA2001	VBN2AHSA3000	VBN2AHSA3001	VBN2AHPA3000	VBN2AHPA3001
	8		VBN2AJSA2000	VBN2AJSA2001	VBN2AJPA2000	VBN2AJPA2001	VBN2AJSA3000	VBN2AJSA3001	VBN2AJPA3000	VBN2AJPA3001
	11.7		VBN2AKSA2000	VBN2AKSA2001	VBN2AKPA2000	VBN2AKPA2001	VBN2AKSA3000	VBN2AKSA3001	VBN2AKPA3000	VBN2AKPA3001
3/4"	0.31	130	VBN2BBSA2000	VBN2BBSA2001	VBN2BBPA2000	VBN2BBPA2001	VBN2BBSA3000	VBN2BBSA3001	VBN2BBPA3000	VBN2BBPA3001
	0.63		VBN2BDSA2000	VBN2BDSA2001	VBN2BDPA2000	VBN2BDPA2001	VBN2BDSA3000	VBN2BDSA3001	VBN2BDPA3000	VBN2BDPA3001
	1.2		VBN2BESA2000	VBN2BESA2001	VBN2BEPA2000	VBN2BEPA2001	VBN2BESA3000	VBN2BESA3001	VBN2BEPA3000	VBN2BEPA3001
	2.5		VBN2BGSA2000	VBN2BGSA2001	VBN2BGPA2000	VBN2BGPA2001	VBN2BGSA3000	VBN2BGSA3001	VBN2BGPA3000	VBN2BGPA3001
	4.3		VBN2BHSA2000	VBN2BHSA2001	VBN2BHPA2000	VBN2BHPA2001	VBN2BHSA3000	VBN2BHSA3001	VBN2BHPA3000	VBN2BHPA3001
	7.4		VBN2BJSJA2000	VBN2BJSJA2001	VBN2BJPA2000	VBN2BJPA2001	VBN2BJSJA3000	VBN2BJSJA3001	VBN2BJPA3000	VBN2BJPA3001
	10.1		VBN2BKSA2000	VBN2BKSA2001	VBN2BKPA2000	VBN2BKPA2001	VBN2BKSA3000	VBN2BKSA3001	VBN2BKPA3000	VBN2BKPA3001
	14.7		VBN2BLSA2000	VBN2BLSA2001	VBN2BLPA2000	VBN2BLPA2001	VBN2BLSA3000	VBN2BLSA3001	VBN2BLPA3000	VBN2BLPA3001
29*	VBN2BMSA2000	VBN2BMSA2001	VBN2BMPA2000	VBN2BMPA2001	VBN2BMSA3000	VBN2BMSA3001	VBN2BMPA3000	VBN2BMPA3001		
1"	4.4	100	VBN2CHSA2000	VBN2CHSA2001	VBN2CHPA2000	VBN2CHPA2001	VBN2CHSA3000	VBN2CHSA3001	VBN2CHPA3000	VBN2CHPA3001
	9		VBN2CJSA2000	VBN2CJSA2001	VBN2CJPA2000	VBN2CJPA2001	VBN2CJSA3000	VBN2CJSA3001	VBN2CJPA3000	VBN2CJPA3001
	15.3		VBN2CLSA2000	VBN2CLSA2001	VBN2CLPA2000	VBN2CLPA2001	VBN2CLSA3000	VBN2CLSA3001	VBN2CLPA3000	VBN2CLPA3001
	26		VBN2CMSA2000	VBN2CMSA2001	VBN2CMPA2000	VBN2CMPA2001	VBN2CMSA3000	VBN2CMSA3001	VBN2CMPA3000	VBN2CMPA3001
	44		VBN2CNSA2000	VBN2CNSA2001	VBN2CNPA2000	VBN2CNPA2001	VBN2CNSA3000	VBN2CNSA3001	VBN2CNPA3000	VBN2CNPA3001
	54		VBN2CPSA2000	VBN2CPSA2001	VBN2CPPA2000	VBN2CPPA2001	VBN2CPSA3000	VBN2CPSA3001	VBN2CPPA3000	VBN2CPPA3001
1-1/4"	4.4	100	VBN2DHSA2000	VBN2DHSA2001	VBN2DHPA2000	VBN2DHPA2001	VBN2DHSA3000	VBN2DHSA3001	VBN2DHPA3000	VBN2DHPA3001
	8.3		VBN2DJSA2000	VBN2DJSA2001	VBN2DJPA2000	VBN2DJPA2001	VBN2DJSA3000	VBN2DJSA3001	VBN2DJPA3000	VBN2DJPA3001
	14.9		VBN2DKSA2000	VBN2DKSA2001	VBN2DKPA2000	VBN2DKPA2001	VBN2DKSA3000	VBN2DKSA3001	VBN2DKPA3000	VBN2DKPA3001
	25		VBN2DLSA2000	VBN2DLSA2001	VBN2DLPA2000	VBN2DLPA2001	VBN2DLSA3000	VBN2DLSA3001	VBN2DLPA3000	VBN2DLPA3001
	37		VBN2DMSA2000	VBN2DMSA2001	VBN2DMPA2000	VBN2DMPA2001	VBN2DMSA3000	VBN2DMSA3001	VBN2DMPA3000	VBN2DMPA3001
	41		VBN2DNSA2000	VBN2DNSA2001	VBN2DNPA2000	VBN2DNPA2001	VBN2DNSA3000	VBN2DNSA3001	VBN2DNPA3000	VBN2DNPA3001
	102		VBN2DSSA2000	VBN2DSSA2001	VBN2DSPA2000	VBN2DSPA2001	VBN2DSSA3000	VBN2DSSA3001	VBN2DSPA3000	VBN2DSPA3001

# MVN Actuator With Low Profile 2-Way NPT Valves 1/2"-1 1/4"

## Common Features

- Max static pressure 360 psi (250°F)
- Medium: Water/glycol solutions up to 50%. Use globe valves for steam control.
- Fluid temperature range: -22 to +250°F
- Spring return actuators field-configurable for A-port normally open or normally closed fail safe.

### VBN2 (Two-way)

- Equal % flow insert. Largest Cv rating in each valve size is full port, as noted
- Nickel-chrome plated brass or 316 stainless steel ball and stem
- ANSI class IV leakage (0.01% of Cv)



Actuator Features		Non-Fail Safe				Valve Only	
Actuator O.S Number/ Short Order Code		MVN613L0000	MVN613L0000+C1	MVN613L0000	MVN613L0000+C1	N/A	N/A
Power Supply	Voltage	24 Vac	24 Vac	24 Vac	24 Vac		
	Frequency	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz		
	Power	1.5 VA	1.5 VA	1.5 VA	1.5 VA		
Actuator Torque	(lb.-in.)	27	27	27	27		
Control	Modulating (0)2-10Vdc						
	Floating	•	•	•	•		
	Fast acting SPDT						
Fail Safe Action		Fail-in-Place	Fail-in-Place	Fail-in-Place	Fail-in-Place		
Actuator Stroke (degrees)		90 ±3	90 ±3	90 ±3	90 ±3		
Timing	(seconds)	90	90	90	90		
Valve Features	Trim	Stainless Steel	Stainless Steel	Plated Brass	Plated Brass	Stainless Steel	Plated Brass

Valve Size (inches)	Cv	Close-off Pressure (psid)	Short Order Codes				Valve Only	
			No Cable	1 Meter Cable	No Cable	1 Meter Cable		
1/2"	0.38	130	VBN2ABSL1000	VBN2ABSL1001	VBN2ABPL1000	VBN2ABPL1001	VBN2ABSL0000	VBN2ABPL0000
	0.68		VBN2ADSL1000	VBN2ADSL1001	VBN2ADPL1000	VBN2ADPL1001	VBN2ADSL0000	VBN2ADPL0000
	1.3		VBN2AESL1000	VBN2AESL1001	VBN2AEPL1000	VBN2AEPL1001	VBN2AESL0000	VBN2AEPL0000
	2		VBN2AFSL1000	VBN2AFSL1001	VBN2AFPL1000	VBN2AFPL1001	VBN2AFSL0000	VBN2AFPL0000
	2.6		VBN2AGSL1000	VBN2AGSL1001	VBN2AGPL1000	VBN2AGPL1001	VBN2AGSL0000	VBN2AGPL0000
	4.7		VBN2AHS�1000	VBN2AHS�1001	VBN2AHPL1000	VBN2AHPL1001	VBN2AHS�0000	VBN2AHPL0000
	8		VBN2AJSL1000	VBN2AJSL1001	VBN2AJPL1000	VBN2AJPL1001	VBN2AJSL0000	VBN2AJPL0000
	11.7		VBN2AKSL1000	VBN2AKSL1001	VBN2AKPL1000	VBN2AKPL1001	VBN2AKSL0000	VBN2AKPL0000
3/4"	0.31	130	VBN2BBSL1000	VBN2BBSL1001	VBN2BBPL1000	VBN2BBPL1001	VBN2BBSL0000	VBN2BBPL0000
	0.63		VBN2BDSL1000	VBN2BDSL1001	VBN2BDPL1000	VBN2BDPL1001	VBN2BDSL0000	VBN2BDPL0000
	1.2		VBN2BESL1000	VBN2BESL1001	VBN2BEPL1000	VBN2BEPL1001	VBN2BESL0000	VBN2BEPL0000
	2.5		VBN2BGSL1000	VBN2BGSL1001	VBN2BGPL1000	VBN2BGPL1001	VBN2BGSL0000	VBN2BGPL0000
	4.3		VBN2BHSL1000	VBN2BHSL1001	VBN2BHPL1000	VBN2BHPL1001	VBN2BHSL0000	VBN2BHPL0000
	7.4		VBN2BJS�1000	VBN2BJS�1001	VBN2BJPL1000	VBN2BJPL1001	VBN2BJS�0000	VBN2BJPL0000
	10.1		VBN2BKSL1000	VBN2BKSL1001	VBN2BKPL1000	VBN2BKPL1001	VBN2BKSL0000	VBN2BKPL0000
	14.7		VBN2BLSL1000	VBN2BLSL1001	VBN2BLPL1000	VBN2BLPL1001	VBN2BLSL0000	VBN2BLPL0000
29*	VBN2BMSL1000	VBN2BMSL1001	VBN2BMPL1000	VBN2BMPL1001	VBN2BMSL0000	VBN2BMPL0000		
1"	4.4	100	VBN2CHSL1000	VBN2CHSL1001	VBN2CHPL1000	VBN2CHPL1001	VBN2CHSL0000	VBN2CHPL0000
	9		VBN2CJSL1000	VBN2CJSL1001	VBN2CJPL1000	VBN2CJPL1001	VBN2CJSL0000	VBN2CJPL0000
	15.3		VBN2CLSL1000	VBN2CLSL1001	VBN2CLPL1000	VBN2CLPL1001	VBN2CLSL0000	VBN2CLPL0000
	26		VBN2CMSL1000	VBN2CMSL1001	VBN2CMPL1000	VBN2CMPL1001	VBN2CMSL0000	VBN2CMPL0000
	44		VBN2CNPL1000	VBN2CNPL1001	VBN2CNPL1000	VBN2CNPL1001	VBN2CNPL0000	VBN2CNPL0000
	54		VBN2CPSL1000	VBN2CPSL1001	VBN2CPPL1000	VBN2CPPL1001	VBN2CPSL0000	VBN2CPPL0000
1-1/4"	4.4	100	VBN2DHSL1000	VBN2DHSL1001	VBN2DHPL1000	VBN2DHPL1001	VBN2DHSL0000	VBN2DHPL0000
	8.3		VBN2DJS�1000	VBN2DJS�1001	VBN2DJPL1000	VBN2DJPL1001	VBN2DJS�0000	VBN2DJPL0000
	14.9		VBN2DKSL1000	VBN2DKSL1001	VBN2DKPL1000	VBN2DKPL1001	VBN2DKSL0000	VBN2DKPL0000
	25		VBN2DLSL1000	VBN2DLSL1001	VBN2DLPL1000	VBN2DLPL1001	VBN2DLSL0000	VBN2DLPL0000
	37		VBN2DMSL1000	VBN2DMSL1001	VBN2DMPL1000	VBN2DMPL1001	VBN2DMSL0000	VBN2DMPL0000
	41		VBN2DNSL1000	VBN2DNSL1001	VBN2DNPL1000	VBN2DNPL1001	VBN2DNSL0000	VBN2DNPL0000
	102		VBN2DSSL1000	VBN2DSSL1001	VBN2DSPL1000	VBN2DSPL1001	VBN2DSSL0000	VBN2DSPL0000

# MVN Actuator With Low Profile 2-Way NPT Valves 1/2"-1 1/4"

Actuator Features			Non-Fail Safe							
Actuator O.S Number/ Short Order Code	MVN643L0000	MVN643L0000+C1	MVN643L0000	MVN643L0000+C1	MVN713L0000	MVN713L0000+C1	MVN713L0000	MVN713L0000+C1		
Power Supply	Voltage	24 Vac	24 Vac	24 Vac	24 Vac	24 Vac	24 Vac	24 Vac		
	Frequency	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz		
	Power	6 VA	6 VA	6 VA	6 VA	5 VA	5 VA	5 VA		
Actuator Torque	(lb.-in.)	27	27	27	27	27	27	27		
Control	Modulating (0)2-10Vdc					•	•	•		
	Floating									
	Fast acting SPDT	•	•	•	•					
Fail Safe Action		Fail-in-Place	Fail-in-Place	Fail-in-Place	Fail-in-Place	Fail-in-Place	Fail-in-Place	Fail-in-Place		
Actuator Stroke (degrees)		90 ±3	90 ±3	90 ±3	90 ±3	90 ±3	90 ±3	90 ±3		
Timing	(seconds)	30	30	30	30	90	90	90		
Valve Features	Trim	Stainless Steel	Stainless Steel	Plated Brass	Plated Brass	Stainless Steel	Stainless Steel	Plated Brass		
Valve Size (inches)	Cv	Close-off Pressure (psid)	Short Order Codes							
			No Cable	1 Meter Cable	No Cable	1 Meter Cable	No Cable	1 Meter Cable		
1/2"	0.38	130	VBN2ABSL2000	VBN2ABSL2001	VBN2ABPL2000	VBN2ABPL2001	VBN2ABSL3000	VBN2ABSL3001	VBN2ABPL3000	VBN2ABPL3001
	0.68		VBN2ADSL2000	VBN2ADSL2001	VBN2ADPL2000	VBN2ADPL2001	VBN2ADSL3000	VBN2ADSL3001	VBN2ADPL3000	VBN2ADPL3001
	1.3		VBN2AESL2000	VBN2AESL2001	VBN2AEPL2000	VBN2AEPL2001	VBN2AESL3000	VBN2AESL3001	VBN2AEPL3000	VBN2AEPL3001
	2		VBN2AFSL2000	VBN2AFSL2001	VBN2AFPL2000	VBN2AFPL2001	VBN2AFSL3000	VBN2AFSL3001	VBN2AFPL3000	VBN2AFPL3001
	2.6		VBN2AGSL2000	VBN2AGSL2001	VBN2AGPL2000	VBN2AGPL2001	VBN2AGSL3000	VBN2AGSL3001	VBN2AGPL3000	VBN2AGPL3001
	4.7		VBN2AHSL2000	VBN2AHSL2001	VBN2AHPL2000	VBN2AHPL2001	VBN2AHSL3000	VBN2AHSL3001	VBN2AHPL3000	VBN2AHPL3001
	8		VBN2AJSL2000	VBN2AJSL2001	VBN2AJPL2000	VBN2AJPL2001	VBN2AJSL3000	VBN2AJSL3001	VBN2AJPL3000	VBN2AJPL3001
	11.7		VBN2AKSL2000	VBN2AKSL2001	VBN2AKPL2000	VBN2AKPL2001	VBN2AKSL3000	VBN2AKSL3001	VBN2AKPL3000	VBN2AKPL3001
3/4"	0.31	130	VBN2BBSL2000	VBN2BBSL2001	VBN2BBPL2000	VBN2BBPL2001	VBN2BBSL3000	VBN2BBSL3001	VBN2BBPL3000	VBN2BBPL3001
	0.63		VBN2BDSL2000	VBN2BDSL2001	VBN2BDPL2000	VBN2BDPL2001	VBN2BDSL3000	VBN2BDSL3001	VBN2BDPL3000	VBN2BDPL3001
	1.2		VBN2BESL2000	VBN2BESL2001	VBN2BEPL2000	VBN2BEPL2001	VBN2BESL3000	VBN2BESL3001	VBN2BEPL3000	VBN2BEPL3001
	2.5		VBN2BGSL2000	VBN2BGSL2001	VBN2BGPL2000	VBN2BGPL2001	VBN2BGSL3000	VBN2BGSL3001	VBN2BGPL3000	VBN2BGPL3001
	4.3		VBN2BHSL2000	VBN2BHSL2001	VBN2BHPL2000	VBN2BHPL2001	VBN2BHSL3000	VBN2BHSL3001	VBN2BHPL3000	VBN2BHPL3001
	7.4		VBN2BJS�2000	VBN2BJS�2001	VBN2BJPL2000	VBN2BJPL2001	VBN2BJS�3000	VBN2BJS�3001	VBN2BJPL3000	VBN2BJPL3001
	10.1		VBN2BKSL2000	VBN2BKSL2001	VBN2BKPL2000	VBN2BKPL2001	VBN2BKSL3000	VBN2BKSL3001	VBN2BKPL3000	VBN2BKPL3001
	14.7		VBN2BLSL2000	VBN2BLSL2001	VBN2BLPL2000	VBN2BLPL2001	VBN2BLSL3000	VBN2BLSL3001	VBN2BLPL3000	VBN2BLPL3001
29*	VBN2BMSL2000	VBN2BMSL2001	VBN2BMPL2000	VBN2BMPL2001	VBN2BMSL3000	VBN2BMSL3001	VBN2BMPL3000	VBN2BMPL3001		
1"	4.4	100	VBN2CHSL2000	VBN2CHSL2001	VBN2CHPL2000	VBN2CHPL2001	VBN2CHSL3000	VBN2CHSL3001	VBN2CHPL3000	VBN2CHPL3001
	9		VBN2CJSL2000	VBN2CJSL2001	VBN2CJPL2000	VBN2CJPL2001	VBN2CJSL3000	VBN2CJSL3001	VBN2CJPL3000	VBN2CJPL3001
	15.3		VBN2CLSL2000	VBN2CLSL2001	VBN2CLPL2000	VBN2CLPL2001	VBN2CLSL3000	VBN2CLSL3001	VBN2CLPL3000	VBN2CLPL3001
	26		VBN2CMSL2000	VBN2CMSL2001	VBN2CMPL2000	VBN2CMPL2001	VBN2CMSL3000	VBN2CMSL3001	VBN2CMPL3000	VBN2CMPL3001
	44		VBN2CNLSL2000	VBN2CNLSL2001	VBN2CNPL2000	VBN2CNPL2001	VBN2CNLSL3000	VBN2CNLSL3001	VBN2CNPL3000	VBN2CNPL3001
	54		VBN2CPSL2000	VBN2CPSL2001	VBN2CPPL2000	VBN2CPPL2001	VBN2CPSL3000	VBN2CPSL3001	VBN2CPPL3000	VBN2CPPL3001
1-1/4"	4.4	100	VBN2DHSL2000	VBN2DHSL2001	VBN2DHPL2000	VBN2DHPL2001	VBN2DHSL3000	VBN2DHSL3001	VBN2DHPL3000	VBN2DHPL3001
	8.3		VBN2DJSL2000	VBN2DJSL2001	VBN2DJPL2000	VBN2DJPL2001	VBN2DJSL3000	VBN2DJSL3001	VBN2DJPL3000	VBN2DJPL3001
	14.9		VBN2DKSL2000	VBN2DKSL2001	VBN2DKPL2000	VBN2DKPL2001	VBN2DKSL3000	VBN2DKSL3001	VBN2DKPL3000	VBN2DKPL3001
	25		VBN2DLSL2000	VBN2DLSL2001	VBN2DLPL2000	VBN2DLPL2001	VBN2DLSL3000	VBN2DLSL3001	VBN2DLPL3000	VBN2DLPL3001
	37		VBN2DMSL2000	VBN2DMSL2001	VBN2DMPL2000	VBN2DMPL2001	VBN2DMSL3000	VBN2DMSL3001	VBN2DMPL3000	VBN2DMPL3001
	41		VBN2DNSL2000	VBN2DNSL2001	VBN2DNPL2000	VBN2DNPL2001	VBN2DNSL3000	VBN2DNSL3001	VBN2DNPL3000	VBN2DNPL3001
	102		VBN2DSSL2000	VBN2DSSL2001	VBN2DSPL2000	VBN2DSPL2001	VBN2DSSL3000	VBN2DSSL3001	VBN2DSPL3000	VBN2DSPL3001


# MVN Actuator With Standard Profile 3-Way NPT Valves 1/2"-1 1/4"

## Common Features

- Max static pressure 360 psi (250°F)
- Medium: Water/glycol solutions up to 50%. Use globe valves for steam control.
- Fluid temperature range: -22 to +250°F
- Spring return actuators field-configurable for A-port normally open or normally closed fail safe.

## VBN2 (Two-way)

- Equal % flow insert. Largest Cv rating in each valve size is full port, as noted
- Nickel-chrome plated brass or 316 stainless steel ball and stem
- ANSI class IV leakage (0.01% of Cv)


Actuator Features		Non-Fail Safe						Valve Only
<b>Actuator O.S Number/ Short Order Code</b>		MVN613A0000	MVN613A0000+C1	MVN643A0000	MVN643A0000+C1	MVN713A0000	MVN713A0000+C1	N/A
<b>Power Supply</b>	Voltage	24 Vac	24 Vac	24 Vac	24 Vac	24 Vac	24 Vac	
	Frequency	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	
	Power	1.5 VA	1.5 VA	6 VA	6 VA	5 VA	5 VA	
<b>Actuator Torque</b>	(lb.-in.)	27	27	27	27	27	27	
<b>Control</b>	Modulating (0)2-10Vdc					•	•	
	Floating	•	•					
	Fast acting SPDT			•	•			
<b>Fail Safe Action</b>		Fail-in-Place	Fail-in-Place	Fail-in-Place	Fail-in-Place	Fail-in-Place	Fail-in-Place	
<b>Actuator Stroke (degrees)</b>		90 ±3	90 ±3	90 ±3	90 ±3	90 ±3	90 ±3	
<b>Timing</b>	(seconds)	90	90	30	30	90	90	
<b>Valve Features</b>	Trim	Plated Brass	Plated Brass	Plated Brass	Plated Brass	Plated Brass	Plated Brass	Plated Brass

Valve Size (inches)	Cv	Close-off Pressure (psid)	Short Order Codes							
			No Cable	1 Meter Cable	No Cable	1 Meter Cable	No Cable	1 Meter Cable	Valve Only	
1/2"	0.33	50	VBN3ABPA1000	VBN3ABPA1001	VBN3ABPA2000	VBN3ABPA2001	VBN3ABPA3000	VBN3ABPA3001	VBN3ABPA0000	
	0.59		VBN3ACPA1000	VBN3ACPA1001	VBN3ACPA2000	VBN3ACPA2001	VBN3ACPA3000	VBN3ACPA3001	VBN3ACPA0000	
	1		VBN3AEPa1000	VBN3AEPa1001	VBN3AEPa2000	VBN3AEPa2001	VBN3AEPa3000	VBN3AEPa3001	VBN3AEPa0000	
	2.4		VBN3AFPA1000	VBN3AFPA1001	VBN3AFPA2000	VBN3AFPA2001	VBN3AFPA3000	VBN3AFPA3001	VBN3AFPA0000	
	4.3		VBN3AHPA1000	VBN3AHPA1001	VBN3AHPA2000	VBN3AHPA2001	VBN3AHPA3000	VBN3AHPA3001	VBN3AHPA0000	
	8		VBN3AJPA1000	VBN3AJPA1001	VBN3AJPA2000	VBN3AJPA2001	VBN3AJPA3000	VBN3AJPA3001	VBN3AJPA0000	
3/4"	0.4		VBN3BCPA1000	VBN3BCPA1001	VBN3BCPA2000	VBN3BCPA2001	VBN3BCPA3000	VBN3BCPA3001	VBN3BCPA0000	
	0.66		VBN3BDPA1000	VBN3BDPA1001	VBN3BDPA2000	VBN3BDPA2001	VBN3BDPA3000	VBN3BDPA3001	VBN3BDPA0000	
	1.3		VBN3BEPA1000	VBN3BEPA1001	VBN3BEPA2000	VBN3BEPA2001	VBN3BEPA3000	VBN3BEPA3001	VBN3BEPA0000	
	2.4		VBN3BFPA1000	VBN3BFPA1001	VBN3BFPA2000	VBN3BFPA2001	VBN3BFPA3000	VBN3BFPA3001	VBN3BFPA0000	
	3.8		VBN3BGPA1000	VBN3BGPA1001	VBN3BGPA2000	VBN3BGPA2001	VBN3BGPA3000	VBN3BGPA3001	VBN3BGPA0000	
	7		VBN3BJPA1000	VBN3BJPA1001	VBN3BJPA2000	VBN3BJPA2001	VBN3BJPA3000	VBN3BJPA3001	VBN3BJPA0000	
1"	11	VBN3BKPA1000	VBN3BKPA1001	VBN3BKPA2000	VBN3BKPA2001	VBN3BKPA3000	VBN3BKPA3001	VBN3BKPA0000		
	0.4	VBN3CCPA1000	VBN3CCPA1001	VBN3CCPA2000	VBN3CCPA2001	VBN3CCPA3000	VBN3CCPA3001	VBN3CCPA0000		
	0.65	VBN3CDPA1000	VBN3CDPA1001	VBN3CDPA2000	VBN3CDPA2001	VBN3CDPA3000	VBN3CDPA3001	VBN3CDPA0000		
	1.3	VBN3CEPA1000	VBN3CEPA1001	VBN3CEPA2000	VBN3CEPA2001	VBN3CEPA3000	VBN3CEPA3001	VBN3CEPA0000		
	2.3	VBN3CFPA1000	VBN3CFPA1001	VBN3CFPA2000	VBN3CFPA2001	VBN3CFPA3000	VBN3CFPA3001	VBN3CFPA0000		
	3.5	VBN3CGPA1000	VBN3CGPA1001	VBN3CGPA2000	VBN3CGPA2001	VBN3CGPA3000	VBN3CGPA3001	VBN3CGPA0000		
	4.5	VBN3CHPA1000	VBN3CHPA1001	VBN3CHPA2000	VBN3CHPA2001	VBN3CHPA3000	VBN3CHPA3001	VBN3CHPA0000		
	8.6	VBN3CJPA1000	VBN3CJPA1001	VBN3CJPA2000	VBN3CJPA2001	VBN3CJPA3000	VBN3CJPA3001	VBN3CJPA0000		
	14.9	VBN3CKPA1000	VBN3CKPA1001	VBN3CKPA2000	VBN3CKPA2001	VBN3CKPA3000	VBN3CKPA3001	VBN3CKPA0000		
	22	VBN3CLPA1000	VBN3CLPA1001	VBN3CLPA2000	VBN3CLPA2001	VBN3CLPA3000	VBN3CLPA3001	VBN3CLPA0000		
31	VBN3CMPA1000	VBN3CMPA1001	VBN3CMPA2000	VBN3CMPA2001	VBN3CMPA3000	VBN3CMPA3001	VBN3CMPA0000			
1-1/4"	4.1	40	VBN3DHPA1000	VBN3DHPA1001	VBN3DHPA2000	VBN3DHPA2001	VBN3DHPA3000	VBN3DHPA3001	VBN3DHPA0000	
	8.7		VBN3DJPA1000	VBN3DJPA1001	VBN3DJPA2000	VBN3DJPA2001	VBN3DJPA3000	VBN3DJPA3001	VBN3DJPA0000	
	12.7		VBN3DKPA1000	VBN3DKPA1001	VBN3DKPA2000	VBN3DKPA2001	VBN3DKPA3000	VBN3DKPA3001	VBN3DKPA0000	
	19.4		VBN3DLPA1000	VBN3DLPA1001	VBN3DLPA2000	VBN3DLPA2001	VBN3DLPA3000	VBN3DLPA3001	VBN3DLPA0000	
	27		VBN3DMPA1000	VBN3DMPA1001	VBN3DMPA2000	VBN3DMPA2001	VBN3DMPA3000	VBN3DMPA3001	VBN3DMPA0000	
	34		VBN3DNPA1000	VBN3DNPA1001	VBN3DNPA2000	VBN3DNPA2001	VBN3DNPA3000	VBN3DNPA3001	VBN3DNPA0000	



3-Way

# MVN Actuator With Standard Profile 3-Way NPT Valves 1/2"-1 1/4"

Actuator Features			Non-Fail Safe					Valve Only	
Actuator O.S Number/ Short Order Code		MVN613L0000	MVN613L0000+C1	MVN643L0000	MVN643L0000+C1	MVN713L0000	MVN713L0000+C1	N/A	
Power Supply	Voltage	24 Vac	24 Vac	24 Vac	24 Vac	24 Vac	24 Vac		
	Frequency	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz		
	Power	1.5 VA	1.5 VA	6 VA	6 VA	5 VA	5 VA		
Actuator Torque	(lb.-in.)	27	27	27	27	27	27		
	Control	Modulating (0)2-10Vdc				•	•		
		Floating	•	•					
Fast acting SPDT				•	•				
Fail Safe Action		Fail-in-Place	Fail-in-Place	Fail-in-Place	Fail-in-Place	Fail-in-Place	Fail-in-Place		
Actuator Stroke (degrees)		90 ±3	90 ±3	90 ±3	90 ±3	90 ±3	90 ±3		
Timing (seconds)		90	90	30	30	90	90		
Valve Features		Trim	Plated Brass	Plated Brass	Plated Brass	Plated Brass	Plated Brass		
Valve Size (inches)	Cv	Close-off Pressure (psid)	Short Order Codes						
			No Cable	1 Meter Cable	No Cable	1 Meter Cable	No Cable	1 Meter Cable	Valve Only
1/2"	0.33	50	VBN3ABPL1000	VBN3ABPL1001	VBN3ABPL2000	VBN3ABPL2001	VBN3ABPL3000	VBN3ABPL3001	VBN3ABPL0000
	0.59		VBN3ACPL1000	VBN3ACPL1001	VBN3ACPL2000	VBN3ACPL2001	VBN3ACPL3000	VBN3ACPL3001	VBN3ACPL0000
	1		VBN3AEPL1000	VBN3AEPL1001	VBN3AEPL2000	VBN3AEPL2001	VBN3AEPL3000	VBN3AEPL3001	VBN3AEPL0000
	2.4		VBN3AFPL1000	VBN3AFPL1001	VBN3AFPL2000	VBN3AFPL2001	VBN3AFPL3000	VBN3AFPL3001	VBN3AFPL0000
	4.3		VBN3AHPL1000	VBN3AHPL1001	VBN3AHPL2000	VBN3AHPL2001	VBN3AHPL3000	VBN3AHPL3001	VBN3AHPL0000
	8		VBN3AJPL1000	VBN3AJPL1001	VBN3AJPL2000	VBN3AJPL2001	VBN3AJPL3000	VBN3AJPL3001	VBN3AJPL0000
3/4"	0.4		VBN3BCPL1000	VBN3BCPL1001	VBN3BCPL2000	VBN3BCPL2001	VBN3BCPL3000	VBN3BCPL3001	VBN3BCPL0000
	0.66		VBN3BDPL1000	VBN3BDPL1001	VBN3BDPL2000	VBN3BDPL2001	VBN3BDPL3000	VBN3BDPL3001	VBN3BDPL0000
	1.3		VBN3BEPL1000	VBN3BEPL1001	VBN3BEPL2000	VBN3BEPL2001	VBN3BEPL3000	VBN3BEPL3001	VBN3BEPL0000
	2.4		VBN3BFPL1000	VBN3BFPL1001	VBN3BFPL2000	VBN3BFPL2001	VBN3BFPL3000	VBN3BFPL3001	VBN3BFPL0000
	3.8		VBN3BGPL1000	VBN3BGPL1001	VBN3BGPL2000	VBN3BGPL2001	VBN3BGPL3000	VBN3BGPL3001	VBN3BGPL0000
	7		VBN3BJPL1000	VBN3BJPL1001	VBN3BJPL2000	VBN3BJPL2001	VBN3BJPL3000	VBN3BJPL3001	VBN3BJPL0000
1"	11		VBN3BKPL1000	VBN3BKPL1001	VBN3BKPL2000	VBN3BKPL2001	VBN3BKPL3000	VBN3BKPL3001	VBN3BKPL0000
	0.4		VBN3CCPL1000	VBN3CCPL1001	VBN3CCPL2000	VBN3CCPL2001	VBN3CCPL3000	VBN3CCPL3001	VBN3CCPL0000
	0.65		VBN3CDPL1000	VBN3CDPL1001	VBN3CDPL2000	VBN3CDPL2001	VBN3CDPL3000	VBN3CDPL3001	VBN3CDPL0000
	1.3		VBN3CEPL1000	VBN3CEPL1001	VBN3CEPL2000	VBN3CEPL2001	VBN3CEPL3000	VBN3CEPL3001	VBN3CEPL0000
	2.3		VBN3CFPL1000	VBN3CFPL1001	VBN3CFPL2000	VBN3CFPL2001	VBN3CFPL3000	VBN3CFPL3001	VBN3CFPL0000
	3.5		VBN3CGPL1000	VBN3CGPL1001	VBN3CGPL2000	VBN3CGPL2001	VBN3CGPL3000	VBN3CGPL3001	VBN3CGPL0000
	4.5	VBN3CHPL1000	VBN3CHPL1001	VBN3CHPL2000	VBN3CHPL2001	VBN3CHPL3000	VBN3CHPL3001	VBN3CHPL0000	
	8.6	VBN3CJPL1000	VBN3CJPL1001	VBN3CJPL2000	VBN3CJPL2001	VBN3CJPL3000	VBN3CJPL3001	VBN3CJPL0000	
	14.9	VBN3CKPL1000	VBN3CKPL1001	VBN3CKPL2000	VBN3CKPL2001	VBN3CKPL3000	VBN3CKPL3001	VBN3CKPL0000	
22	VBN3CLPL1000	VBN3CLPL1001	VBN3CLPL2000	VBN3CLPL2001	VBN3CLPL3000	VBN3CLPL3001	VBN3CLPL0000		
1-1/4"	31	VBN3CMPL1000	VBN3CMPL1001	VBN3CMPL2000	VBN3CMPL2001	VBN3CMPL3000	VBN3CMPL3001	VBN3CMPL0000	
	4.1	VBN3DHPL1000	VBN3DHPL1001	VBN3DHPL2000	VBN3DHPL2001	VBN3DHPL3000	VBN3DHPL3001	VBN3DHPL0000	
	8.7	VBN3DJPL1000	VBN3DJPL1001	VBN3DJPL2000	VBN3DJPL2001	VBN3DJPL3000	VBN3DJPL3001	VBN3DJPL0000	
	12.7	VBN3DKPL1000	VBN3DKPL1001	VBN3DKPL2000	VBN3DKPL2001	VBN3DKPL3000	VBN3DKPL3001	VBN3DKPL0000	
	19.4	VBN3DLPL1000	VBN3DLPL1001	VBN3DLPL2000	VBN3DLPL2001	VBN3DLPL3000	VBN3DLPL3001	VBN3DLPL0000	
	27	VBN3DMPL1000	VBN3DMPL1001	VBN3DMPL2000	VBN3DMPL2001	VBN3DMPL3000	VBN3DMPL3001	VBN3DMPL0000	
34	VBN3DNPL1000	VBN3DNPL1001	VBN3DNPL2000	VBN3DNPL2001	VBN3DNPL3000	VBN3DNPL3001	VBN3DNPL0000		

Short Order Codes  
**2-Way NPT Valves 1/2" - 3", NEMA 2**

**Common Features**

- Max static pressure 360 psi (250°F)
  - Medium: Water/glycol solutions up to 50%. Use globe valves for steam control.
  - Fluid temperature range: -22 to +250°F
  - Spring return actuators field-configurable for A-port normally open or normally closed fail safe.
- VBN2 (Two-way)**
- Equal % flow insert. Largest Cv rating in each valve size is full port, as noted
  - Nickel-chrome plated brass or 316 stainless steel ball and stem
  - ANSI class IV leakage (0.01% of Cv)



2-Way

Actuator Features			Non-fail Safe				Valve Only	
Actuator O.S. Number	MN6105A1011	MN6105A1011	MN7505A2001	MN7505A2001	N/A	N/A		
Power Supply	Voltage	24 Vac	24 Vac	24 Vac	24 Vac			
	Frequency	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz			
	Power	5 VA	5 VA	5 VA	5 VA			
Actuator Torque	(lb.-in.)	44	44	44	44			
Control	(0)2-10 Vdc			•	•			
	4-20 mA (external 500 Ohm Resistor)			•	•			
	Floating	•	•	•	•			
	Two-Position SPDT	•	•	•	•			
	Two-Position SPST			•	•			
Fail Safe Action		Stay in Place	Stay in Place	Stay in Place	Stay in Place			
Normal Position (no signal)		Closed	Closed	Closed	Closed			
Actuator Stroke	(degrees)	95° ± 3°	95° ± 3°	95° ± 3°	95° ± 3°			
Timing	(drive/spring return, seconds)	95	95	95	95			
Aux Switch	2 x SPDT Build-In	SSW2-1M	SSW2-1M	SSW2-1M	SSW2-1M			
Feedback	2-10 Vdc Add-on	-	-	•	•			
Valve Features	Trim	Nickel-Plated Brass	Stainless Steel	Nickel-Plated Brass	Stainless Steel	Nickel-Plated Brass	Stainless Steel	
Valve Size (inches)	Cv	Close-off Pressure (psid)	Short Order Codes					
1/2"	0.38	130	VBN2ABPX4000	VBN2ABSX4000	VBN2ABPX5000	VBN2ABSX5000	VBN2ABPX0000	VBN2ABSX0000
	0.68		VBN2ADPX4000	VBN2ADSX4000	VBN2ADPX5000	VBN2ADSX5000	VBN2ADPX0000	VBN2ADSX0000
	1.3		VBN2AEPX4000	VBN2AESX4000	VBN2AEPX5000	VBN2AESX5000	VBN2AEPX0000	VBN2AESX0000
	2		VBN2AFPX4000	VBN2AFSX4000	VBN2AFPX5000	VBN2AFSX5000	VBN2AFPX0000	VBN2AFSX0000
	2.6		VBN2AGPX4000	VBN2AGSX4000	VBN2AGPX5000	VBN2AGSX5000	VBN2AGPX0000	VBN2AGSX0000
	4.7		VBN2AHPX4000	VBN2AHSX4000	VBN2AHPX5000	VBN2AHSX5000	VBN2AHPX0000	VBN2AHSX0000
	8		VBN2AJPX4000	VBN2JJSX4000	VBN2AJPX5000	VBN2JJSX5000	VBN2AJPX0000	VBN2JJSX0000
11.7*	VBN2AKPX4000		VBN2AKSX4000	VBN2AKPX5000	VBN2AKSX5000	VBN2AKPX0000	VBN2AKSX0000	
0.31	VBN2BPPX4000		VBN2BBSX4000	VBN2BPPX5000	VBN2BBSX5000	VBN2BPPX0000	VBN2BBSX0000	
0.63	VBN2BDPX4000		VBN2BDSX4000	VBN2BDPX5000	VBN2BDSX5000	VBN2BDPX0000	VBN2BDSX0000	
1.2	VBN2BEPX4000		VBN2BESX4000	VBN2BEPX5000	VBN2BESX5000	VBN2BEPX0000	VBN2BESX0000	
2.5	VBN2BGPX4000		VBN2BGSX4000	VBN2BGPX5000	VBN2BGSX5000	VBN2BGPX0000	VBN2BGSX0000	
4.3	VBN2BHPX4000		VBN2BHSX4000	VBN2BHPX5000	VBN2BHSX5000	VBN2BHPX0000	VBN2BHSX0000	
7.4	VBN2BJPX4000		VBN2BJSX4000	VBN2BJPX5000	VBN2BJSX5000	VBN2BJPX0000	VBN2BJSX0000	
10.1	VBN2BKPX4000	VBN2BKSX4000	VBN2BKPX5000	VBN2BKSX5000	VBN2BKPX0000	VBN2BKSX0000		
14.7*	VBN2BLPX4000	VBN2BLSX4000	VBN2BLPX5000	VBN2BLSX5000	VBN2BLPX0000	VBN2BLSX0000		
29*	VBN2BMPX4000	VBN2BMSX4000	VBN2BMPX5000	VBN2BMSX5000	VBN2BMPX0000	VBN2BMSX0000		
1"	4.4	VBN2CHPX4000	VBN2CHSX4000	VBN2CHPX5000	VBN2CHSX5000	VBN2CHPX0000	VBN2CHSX0000	
	9	VBN2CJPX4000	VBN2CJSX4000	VBN2CJPX5000	VBN2CJSX5000	VBN2CJPX0000	VBN2CJSX0000	
	15.3	VBN2CLPX4000	VBN2CLSX4000	VBN2CLPX5000	VBN2CLSX5000	VBN2CLPX0000	VBN2CLSX0000	
	26	VBN2CMPX4000	VBN2CMSX4000	VBN2CMPX5000	VBN2CMSX5000	VBN2CMPX0000	VBN2CMSX0000	
	44*	VBN2CNPX4000	VBN2CNSX4000	VBN2CNPX5000	VBN2CNSX5000	VBN2CNPX0000	VBN2CNSX0000	
	54*	VBN2CPPX4000	VBN2CPSX4000	VBN2CPPX5000	VBN2CPSX5000	VBN2CPPX0000	VBN2CPSX0000	
	4.4	VBN2DHPX4000	VBN2DHSX4000	VBN2DHPX5000	VBN2DHSX5000	VBN2DHPX0000	VBN2DHSX0000	
1-1/4"	8.3	VBN2DJPX4000	VBN2DJSX4000	VBN2DJPX5000	VBN2DJSX5000	VBN2DJPX0000	VBN2DJSX0000	
	14.9	VBN2DKPX4000	VBN2DKSX4000	VBN2DKPX5000	VBN2DKSX5000	VBN2DKPX0000	VBN2DKSX0000	
	25	VBN2DLPX4000	VBN2DLSX4000	VBN2DLPX5000	VBN2DLSX5000	VBN2DLPX0000	VBN2DLSX0000	
	37	VBN2DMPX4000	VBN2DMSX4000	VBN2DMPX5000	VBN2DMSX5000	VBN2DMPX0000	VBN2DMSX0000	
	41*	VBN2DNPX4000	VBN2DNSX4000	VBN2DNPX5000	VBN2DNSX5000	VBN2DNPX0000	VBN2DNSX0000	
	102*	VBN2DSPX4000	VBN2DSSX4000	VBN2DSPX5000	VBN2DSSX5000	VBN2DSPX0000	VBN2DSSX0000	
	23	VBN2ELPX4000	VBN2ELSX4000	VBN2ELPX5000	VBN2ELSX5000	VBN2ELPX0000	VBN2ELSX0000	
1-1/2"	30	VBN2EMPX4000	VBN2EMSX4000	VBN2EMPX5000	VBN2EMSX5000	VBN2EMPX0000	VBN2EMSX0000	
	41	VBN2ENPX4000	VBN2ENSX4000	VBN2ENPX5000	VBN2ENSX5000	VBN2ENPX0000	VBN2ENSX0000	
	74*	VBN2ERPX4000	VBN2ERSX4000	VBN2ERPX5000	VBN2ERSX5000	VBN2ERPX0000	VBN2ERSX0000	
	172*	VBN2E1PX4000	VBN2E1SX4000	VBN2E1PX5000	VBN2E1SX5000	VBN2E1PX0000	VBN2E1SX0000	
	42	VBN2FNPX4000	VBN2FNSX4000	VBN2FNPX5000	VBN2FNSX5000	VBN2FNPX0000	VBN2FNSX0000	
	57	VBN2FPPX4000	VBN2FPSX4000	VBN2FPPX5000	VBN2FPSX5000	VBN2FPPX0000	VBN2FPSX0000	
	71	VBN2FRPX4000	VBN2FRSX4000	VBN2FRPX5000	VBN2FRSX5000	VBN2FRPX0000	VBN2FRSX0000	
2"	100	VBN2FSPX4000	VBN2FSSX4000	VBN2FSPX5000	VBN2FSSX5000	VBN2FSPX0000	VBN2FSSX0000	
	108*	VBN2FTPX4000	VBN2FTSX4000	VBN2FTPX5000	VBN2FTSX5000	VBN2FTPX0000	VBN2FTSX0000	
	210	VBN2F1PX4000	VBN2F1SX4000	VBN2F1PX5000	VBN2F1SX5000	VBN2F1PX0000	VBN2F1SX0000	
	266*	VBN2F2PX4000	VBN2F2SX4000	VBN2F2PX5000	VBN2F2SX5000	VBN2F2PX0000	VBN2F2SX0000	
	45	VBN2GNPX4000	VBN2GNSX4000	VBN2GNPX5000	VBN2GNSX5000	VBN2GNPX0000	VBN2GNSX0000	
	55	VBN2GPPX4000	VBN2GPSX4000	VBN2GPPX5000	VBN2GPSX5000	VBN2GPPX0000	VBN2GPSX0000	
	72	VBN2GRPX4000	VBN2GRSX4000	VBN2GRPX5000	VBN2GRSX5000	VBN2GRPX0000	VBN2GRSX0000	
2-1/2"	101	VBN2GSPX4000	VBN2GSSX4000	VBN2GSPX5000	VBN2GSSX5000	VBN2GSPX0000	VBN2GSSX0000	
	162	VBN2GUPX4000	VBN2GUSX4000	VBN2GUPX5000	VBN2GUSX5000	VBN2GUPX0000	VBN2GUSX0000	
	202*	VBN2G1PX4000	VBN2G1SX4000	VBN2G1PX5000	VBN2G1SX5000	VBN2G1PX0000	VBN2G1SX0000	
	49	VBN2HNPX4000	VBN2HNSX4000	VBN2HNPX5000	VBN2HNSX5000	VBN2HNPX0000	VBN2HNSX0000	
	63	VBN2HPPX4000	VBN2HPSX4000	VBN2HPPX5000	VBN2HPSX5000	VBN2HPPX0000	VBN2HPSX0000	
	82	VBN2HRPX4000	VBN2HRSX4000	VBN2HRPX5000	VBN2HRSX5000	VBN2HRPX0000	VBN2HRSX0000	
	124	VBN2HTPX4000	VBN2HTSX4000	VBN2HTPX5000	VBN2HTSX5000	VBN2HTPX0000	VBN2HTSX0000	
3"	145*	VBN2HUPX4000	VBN2HUSX4000	VBN2HUPX5000	VBN2HUSX5000	VBN2HUPX0000	VBN2HUSX0000	

\* Full port ball. No flow characterizing insert.





Actuator Features			Fail Safe							
Actuator O.S. Number	MS8105A1030	MS8105A1030	MS8105A1030	MS8105A1030	MS7505A2030	MS7505A2030	MS7505A2030	MS7505A2030		
Power Supply	Voltage		24 Vac	24 Vac	24 Vac	24 Vac	24 Vac	24 Vac		
	Frequency		50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz		
	Power		8VA	8VA	8VA	8VA	7.5 VA	7.5 VA		
Actuator Torque	(lb.-in.)		44	44	44	44	44	44		
Control	(0)2-10 Vdc									
	4-20 mA (external 500 Ohm Resistor)									
	Floating									
	Two-Position SPDT									
	Two-Position SPST									
Fail Safe Action	Closed		Open	Closed	Open	Closed	Open	Closed		
Normal Position (no signal)	Closed		Open	Closed	Open	Closed	Open	Closed		
Actuator Stroke	(degrees)		95° ± 3°	95° ± 3°	95° ± 3°	95° ± 3°	95° ± 3°	95° ± 3°		
Timing	(drive/spring return, seconds)		45/25	45/25	45/25	45/25	45/25	45/25		
Aux Switch	2 x SPDT Add-on									
Feedback	2-10 Vdc Built In									
Valve Features	Trim	Nickel-Plated Brass	Nickel-Plated Brass	Stainless Steel	Stainless Steel	Nickel-Plated Brass	Nickel-Plated Brass	Stainless Steel		
Valve Size (Inches)	Cv	Close-off Pressure (psid)	Short Order Codes							
1/2"	0.38	130	VBN2ABPX7200	VBN2ABPX7100	VBN2ABSX7200	VBN2ABSX7100	VBN2ABPX6200	VBN2ABPX6100	VBN2ABSX6200	VBN2ABSX6100
	0.68		VBN2ADPX7200	VBN2ADPX7100	VBN2ADSX7200	VBN2ADSX7100	VBN2ADPX6200	VBN2ADPX6100	VBN2ADSX6200	VBN2ADSX6100
	1.3		VBN2AEPX7200	VBN2AEPX7100	VBN2AESX7200	VBN2AESX7100	VBN2AEPX6200	VBN2AEPX6100	VBN2AESX6200	VBN2AESX6100
	2		VBN2AFPX7200	VBN2AFPX7100	VBN2AFSX7200	VBN2AFSX7100	VBN2AFPX6200	VBN2AFPX6100	VBN2AFSX6200	VBN2AFSX6100
	2.6		VBN2AGPX7200	VBN2AGPX7100	VBN2AGSX7200	VBN2AGSX7100	VBN2AGPX6200	VBN2AGPX6100	VBN2AGSX6200	VBN2AGSX6100
	4.7		VBN2AHPX7200	VBN2AHPX7100	VBN2AHSX7200	VBN2AHSX7100	VBN2AHPX6200	VBN2AHPX6100	VBN2AHSX6200	VBN2AHSX6100
	8		VBN2AJPX7200	VBN2AJPX7100	VBN2AJSX7200	VBN2AJSX7100	VBN2AJPX6200	VBN2AJPX6100	VBN2AJSX6200	VBN2AJSX6100
	11.7*		VBN2AKPX7200	VBN2AKPX7100	VBN2AKSX7200	VBN2AKSX7100	VBN2AKPX6200	VBN2AKPX6100	VBN2AKSX6200	VBN2AKSX6100
	0.31		VBN2BBPX7200	VBN2BBPX7100	VBN2BBSX7200	VBN2BBSX7100	VBN2BBPX6200	VBN2BBPX6100	VBN2BBSX6200	VBN2BBSX6100
	0.63		VBN2BDPX7200	VBN2BDPX7100	VBN2BDSX7200	VBN2BDSX7100	VBN2BDPX6200	VBN2BDPX6100	VBN2BDSX6200	VBN2BDSX6100
	1.2		VBN2BEPX7200	VBN2BEPX7100	VBN2BESX7200	VBN2BESX7100	VBN2BEPX6200	VBN2BEPX6100	VBN2BESX6200	VBN2BESX6100
2.5	VBN2BGPX7200	VBN2BGPX7100	VBN2BGSX7200	VBN2BGSX7100	VBN2BGPX6200	VBN2BGPX6100	VBN2BGSX6200	VBN2BGSX6100		
4.3	VBN2BHPX7200	VBN2BHPX7100	VBN2BHSX7200	VBN2BHSX7100	VBN2BHPX6200	VBN2BHPX6100	VBN2BHSX6200	VBN2BHSX6100		
7.4	VBN2BJPX7200	VBN2BJPX7100	VBN2BJSX7200	VBN2BJSX7100	VBN2BJPX6200	VBN2BJPX6100	VBN2BJSX6200	VBN2BJSX6100		
10.1	VBN2BKPX7200	VBN2BKPX7100	VBN2BKSX7200	VBN2BKSX7100	VBN2BKPX6200	VBN2BKPX6100	VBN2BKSX6200	VBN2BKSX6100		
14.7*	VBN2BLPX7200	VBN2BLPX7100	VBN2BLSX7200	VBN2BLSX7100	VBN2BLPX6200	VBN2BLPX6100	VBN2BLSX6200	VBN2BLSX6100		
29*	VBN2BMPX7200	VBN2BMPX7100	VBN2BMSX7200	VBN2BMSX7100	VBN2BMPX6200	VBN2BMPX6100	VBN2BMSX6200	VBN2BMSX6100		
4.4	VBN2CHPX7200	VBN2CHPX7100	VBN2CHSX7200	VBN2CHSX7100	VBN2CHPX6200	VBN2CHPX6100	VBN2CHSX6200	VBN2CHSX6100		
9	VBN2CJPX7200	VBN2CJPX7100	VBN2CJSX7200	VBN2CJSX7100	VBN2CJPX6200	VBN2CJPX6100	VBN2CJSX6200	VBN2CJSX6100		
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26	VBN2CMPX7200	VBN2CMPX7100	VBN2CMSX7200	VBN2CMSX7100	VBN2CMPX6200	VBN2CMPX6100	VBN2CMSX6200	VBN2CMSX6100		
44*	VBN2CNPX7200	VBN2CNPX7100	VBN2CNSX7200	VBN2CNSX7100	VBN2CNPX6200	VBN2CNPX6100	VBN2CNSX6200	VBN2CNSX6100		
54*	VBN2CPPX7200	VBN2CPPX7100	VBN2CPSX7200	VBN2CPSX7100	VBN2CPPX6200	VBN2CPPX6100	VBN2CPSX6200	VBN2CPSX6100		
4.4	VBN2DHPX7200	VBN2DHPX7100	VBN2DHSX7200	VBN2DHSX7100	VBN2DHPX6200	VBN2DHPX6100	VBN2DHSX6200	VBN2DHSX6100		
8.3	VBN2DJPX7200	VBN2DJPX7100	VBN2DJSX7200	VBN2DJSX7100	VBN2DJPX6200	VBN2DJPX6100	VBN2DJSX6200	VBN2DJSX6100		
14.9	VBN2DKPX7200	VBN2DKPX7100	VBN2DKSX7200	VBN2DKSX7100	VBN2DKPX6200	VBN2DKPX6100	VBN2DKSX6200	VBN2DKSX6100		
25	VBN2DLPX7200	VBN2DLPX7100	VBN2DLSX7200	VBN2DLSX7100	VBN2DLPX6200	VBN2DLPX6100	VBN2DLSX6200	VBN2DLSX6100		
37	VBN2DMPX7200	VBN2DMPX7100	VBN2DMSX7200	VBN2DMSX7100	VBN2DMPX6200	VBN2DMPX6100	VBN2DMSX6200	VBN2DMSX6100		
41*	VBN2DNPX7200	VBN2DNPX7100	VBN2DNSX7200	VBN2DNSX7100	VBN2DNPX6200	VBN2DNPX6100	VBN2DNSX6200	VBN2DNSX6100		
102*	VBN2DSPX7200	VBN2DSPX7100	VBN2DSSX7200	VBN2DSSX7100	VBN2DSPX6200	VBN2DSPX6100	VBN2DSSX6200	VBN2DSSX6100		
23	VBN2ELPX7200	VBN2ELPX7100	VBN2ELSX7200	VBN2ELSX7100	VBN2ELPX6200	VBN2ELPX6100	VBN2ELSX6200	VBN2ELSX6100		
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74*	VBN2ERPX7200	VBN2ERPX7100	VBN2ERSX7200	VBN2ERSX7100	VBN2ERPX6200	VBN2ERPX6100	VBN2ERSX6200	VBN2ERSX6100		
172*	VBN2E1PX7200	VBN2E1PX7100	VBN2E1SX7200	VBN2E1SX7100	VBN2E1PX6200	VBN2E1PX6100	VBN2E1SX6200	VBN2E1SX6100		
42	VBN2FNPX7200	VBN2FNPX7100	VBN2FNSX7200	VBN2FNSX7100	VBN2FNPX6200	VBN2FNPX6100	VBN2FNSX6200	VBN2FNSX6100		
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71	VBN2FRPX7200	VBN2FRPX7100	VBN2FRSX7200	VBN2FRSX7100	VBN2FRPX6200	VBN2FRPX6100	VBN2FRSX6200	VBN2FRSX6100		
100	VBN2FSPX7200	VBN2FSPX7100	VBN2FSSX7200	VBN2FSSX7100	VBN2FSPX6200	VBN2FSPX6100	VBN2FSSX6200	VBN2FSSX6100		
108*	VBN2FTPX7200	VBN2FTPX7100	VBN2FTSX7200	VBN2FTSX7100	VBN2FTPX6200	VBN2FTPX6100	VBN2FTSX6200	VBN2FTSX6100		
210	VBN2F1PX7200	VBN2F1PX7100	VBN2F1SX7200	VBN2F1SX7100	VBN2F1PX6200	VBN2F1PX6100	VBN2F1SX6200	VBN2F1SX6100		
266*	VBN2F2PX7200	VBN2F2PX7100	VBN2F2SX7200	VBN2F2SX7100	VBN2F2PX6200	VBN2F2PX6100	VBN2F2SX6200	VBN2F2SX6100		
45	VBN2GNPX7200	VBN2GNPX7100	VBN2GNSX7200	VBN2GNSX7100	VBN2GNPX6200	VBN2GNPX6100	VBN2GNSX6200	VBN2GNSX6100		
55	VBN2GPPX7200	VBN2GPPX7100	VBN2GPSX7200	VBN2GPSX7100	VBN2GPPX6200	VBN2GPPX6100	VBN2GPSX6200	VBN2GPSX6100		
72	VBN2GRPX7200	VBN2GRPX7100	VBN2GRSX7200	VBN2GRSX7100	VBN2GRPX6200	VBN2GRPX6100	VBN2GRSX6200	VBN2GRSX6100		
101	VBN2GSPX7200	VBN2GSPX7100	VBN2GSSX7200	VBN2GSSX7100	VBN2GSPX6200	VBN2GSPX6100	VBN2GSSX6200	VBN2GSSX6100		
162	VBN2GUPX7200	VBN2GUPX7100	VBN2GUSX7200	VBN2GUSX7100	VBN2GUPX6200	VBN2GUPX6100	VBN2GUSX6200	VBN2GUSX6100		
202*	VBN2G1PX7200	VBN2G1PX7100	VBN2G1SX7200	VBN2G1SX7100	VBN2G1PX6200	VBN2G1PX6100	VBN2G1SX6200	VBN2G1SX6100		
49	VBN2HNPX7200	VBN2HNPX7100	VBN2HNSX7200	VBN2HNSX7100	VBN2HNPX6200	VBN2HNPX6100	VBN2HNSX6200	VBN2HNSX6100		
63	VBN2HPPX7200	VBN2HPPX7100	VBN2HPSX7200	VBN2HPSX7100	VBN2HPPX6200	VBN2HPPX6100	VBN2HPSX6200	VBN2HPSX6100		
82	VBN2HRPX7200	VBN2HRPX7100	VBN2HRSX7200	VBN2HRSX7100	VBN2HRPX6200	VBN2HRPX6100	VBN2HRSX6200	VBN2HRSX6100		
124	VBN2HTPX7200	VBN2HTPX7100	VBN2HTSX7200	VBN2HTSX7100	VBN2HTPX6200	VBN2HTPX6100	VBN2HTSX6200	VBN2HTSX6100		
145*	VBN2HUPX7200	VBN2HUPX7100	VBN2HUSX7200	VBN2HUSX7100	VBN2HUPX6200	VBN2HUPX6100	VBN2HUSX6200	VBN2HUSX6100		

\* Full port ball. No flow characterizing insert.

## 2-Way NPT Valves 1/2" - 3", NEMA 3R

### Common Features

- Max static pressure 360 psi (250°F)
- Medium: Water/glycol solutions up to 50%.
- Temperature range: -22 to +250°F
- Spring return actuators field-configurable for A-port normally open or normally closed fail safe.
- Removable handle for manual operation
- ANSI class IV leakage (0.01% of Cv)

#### VBN2 (Two-way):

- Equal % flow insert. (Largest Cv rating in each valve size is full port, as noted.)
- Nickel-chrome plated brass or 316 stainless steel ball and stem

With optional NEMA 3R actuator enclosure.



2-Way

Actuator Features			Non-fail Safe			
Actuator O.S. Number	MN6105A1011	MN6105A1011	MN7505A2001	MN7505A2001		
Power Supply	Voltage	24 Vac	24 Vac	24 Vac	24 Vac	
	Frequency	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	
	Power	5 VA	5 VA	5 VA	5 VA	
Actuator Torque	(lb.-in.)	44	44	44	44	
Control	(0)2-10 Vdc			•	•	
	4-20 mA (external 500 Ohm Resistor)			•	•	
	Floating	•	•	•	•	
	Two-Position SPDT	•	•	•	•	
	Two-Position SPST			•	•	
Fail Safe Action		Stay in Place	Stay in Place	Stay in Place	Stay in Place	
Normal Position (no signal)		Closed	Closed	Closed	Closed	
Actuator Stroke	(degrees)	95° ± 3°	95° ± 3°	95° ± 3°	95° ± 3°	
Timing	(drive/spring return, seconds)	95	95	95	95	
Aux Switch	2 x SPDT Add-on	SSW2-1M	SSW2-1M	SSW2-1M	SSW2-1M	
Feedback	2-10 Vdc Built In			•	•	
Valve Features	Trim	Nickel-Plated Brass	Stainless Steel	Nickel-Plated Brass	Stainless Steel	
Valve Size (inches)	Cv	Close-off Pressure (psid)	Short Order Codes			
1/2"	0.38	130	VBN2ABPX4002	VBN2ABSX4002	VBN2ABPX5002	VBN2ABSX5002
	0.68		VBN2ADPX4002	VBN2ADSX4002	VBN2ADPX5002	VBN2ADSX5002
	1.3		VBN2AEPX4002	VBN2AESX4002	VBN2AEPX5002	VBN2AESX5002
	2		VBN2AFPX4002	VBN2AFSX4002	VBN2AFPX5002	VBN2AFSX5002
	2.6		VBN2AGPX4002	VBN2AGSX4002	VBN2AGPX5002	VBN2AGSX5002
	4.7		VBN2AHPX4002	VBN2AHSX4002	VBN2AHPX5002	VBN2AHSX5002
	8		VBN2AJPX4002	VBN2AJSX4002	VBN2AJPX5002	VBN2AJSX5002
11.7*	VBN2AKPX4002		VBN2AKSX4002	VBN2AKPX5002	VBN2AKSX5002	
0.31	VBN2BBPX4002		VBN2BBSX4002	VBN2BBPX5002	VBN2BBSX5002	
0.63	VBN2BDPX4002		VBN2BDSX4002	VBN2BDPX5002	VBN2BDSX5002	
1.2	VBN2BEPX4002		VBN2BESX4002	VBN2BEPX5002	VBN2BESX5002	
2.5	VBN2BGPX4002		VBN2BGSX4002	VBN2BGPX5002	VBN2BGSX5002	
4.3	VBN2BHPX4002		VBN2BHSX4002	VBN2BHPX5002	VBN2BHSX5002	
7.4	VBN2BJPX4002		VBN2BJSX4002	VBN2BJPX5002	VBN2BJSX5002	
10.1	VBN2BKPX4002	VBN2BKSX4002	VBN2BKPX5002	VBN2BKSX5002		
14.7*	VBN2BLPX4002	VBN2BLSX4002	VBN2BLPX5002	VBN2BLSX5002		
29*	VBN2BMPX4002	VBN2BMSX4002	VBN2BMPX5002	VBN2BMSX5002		
1"	4.4	100	VBN2CHPX4002	VBN2CHSX4002	VBN2CHPX5002	VBN2CHSX5002
	9		VBN2CJPX4002	VBN2CJSX4002	VBN2CJPX5002	VBN2CJSX5002
	15.3		VBN2CLPX4002	VBN2CLSX4002	VBN2CLPX5002	VBN2CLSX5002
	26		VBN2CMPX4002	VBN2CMSX4002	VBN2CMPX5002	VBN2CMSX5002
	44*		VBN2CNPX4002	VBN2CNSX4002	VBN2CNPX5002	VBN2CNSX5002
	54*		VBN2CPPX4002	VBN2CPSX4002	VBN2CPPX5002	VBN2CPSX5002
4.4	VBN2DHPX4002		VBN2DHSX4002	VBN2DHPX5002	VBN2DHSX5002	
8.3	VBN2DJPX4002		VBN2DJSX4002	VBN2DJPX5002	VBN2DJSX5002	
14.9	VBN2DKPX4002		VBN2DKSX4002	VBN2DKPX5002	VBN2DKSX5002	
25	VBN2DLPX4002		VBN2DLSX4002	VBN2DLPX5002	VBN2DLSX5002	
37	VBN2DMPX4002		VBN2DMSX4002	VBN2DMPX5002	VBN2DMSX5002	
41*	VBN2DNPX4002		VBN2DNSX4002	VBN2DNPX5002	VBN2DNSX5002	
102*	VBN2DSPX4002		VBN2DSSX4002	VBN2DSPX5002	VBN2DSSX5002	
23	VBN2ELPX4002		VBN2ELSX4002	VBN2ELPX5002	VBN2ELSX5002	
30	VBN2EMPX4002	VBN2EMSX4002	VBN2EMPX5002	VBN2EMSX5002		
41	VBN2ENPX4002	VBN2ENSX4002	VBN2ENPX5002	VBN2ENSX5002		
74*	VBN2ERPX4002	VBN2ERSX4002	VBN2ERPX5002	VBN2ERSX5002		
172*	VBN2E1PX4002	VBN2E1SX4002	VBN2E1PX5002	VBN2E1SX5002		
42	VBN2FNPX4002	VBN2FNSX4002	VBN2FNPX5002	VBN2FNSX5002		
57	VBN2FPPX4002	VBN2FPSX4002	VBN2FPPX5002	VBN2FPSX5002		
71	VBN2FRPX4002	VBN2FRSX4002	VBN2FRPX5002	VBN2FRSX5002		
100	VBN2FSPX4002	VBN2FSSX4002	VBN2FSPX5002	VBN2FSSX5002		
108*	VBN2FTPX4002	VBN2FTSX4002	VBN2FTPX5002	VBN2FTSX5002		
210	VBN2F1PX4002	VBN2F1SX4002	VBN2F1PX5002	VBN2F1SX5002		
266*	VBN2F2PX4002	VBN2F2SX4002	VBN2F2PX5002	VBN2F2SX5002		
45	VBN2GNPX4002	VBN2GNSX4002	VBN2GNPX5002	VBN2GNSX5002		
55	VBN2GPPX4002	VBN2GPSX4002	VBN2GPPX5002	VBN2GPSX5002		
72	VBN2GRPX4002	VBN2GRSX4002	VBN2GRPX5002	VBN2GRSX5002		
101	VBN2GSPX4002	VBN2GSSX4002	VBN2GSPX5002	VBN2GSSX5002		
162	VBN2GUPX4002	VBN2GUSX4002	VBN2GUPX5002	VBN2GUSX5002		
202*	VBN2G1PX4002	VBN2G1SX4002	VBN2G1PX5002	VBN2G1SX5002		
49	VBN2HNPX4002	VBN2HNSX4002	VBN2HNPX5002	VBN2HNSX5002		
63	VBN2HPPX4002	VBN2HPSX4002	VBN2HPPX5002	VBN2HPSX5002		
82	VBN2HRPX4002	VBN2HRSX4002	VBN2HRPX5002	VBN2HRSX5002		
124	VBN2HTPX4002	VBN2HTSX4002	VBN2HTPX5002	VBN2HTSX5002		
145*	VBN2HUPX4002	VBN2HUSX4002	VBN2HUPX5002	VBN2HUSX5002		

\* Full port ball. No flow characterizing insert.

Actuator Features			Fail Safe							
Actuator O.S. Number	MS8105A1030	MS8105A1030	MS8105A1030	MS8105A1030	MS7505A2030	MS7505A2030	MS7505A2030	MS7505A2030		
Power Supply	Voltage	24 Vac	24 Vac	24 Vac	24 Vac	24 Vac	24 Vac	24 Vac		
	Frequency	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz		
	Power	8VA	8VA	8VA	8VA	7.5 VA	7.5 VA	7.5 VA		
Actuator Torque	(lb.-in.)	44	44	44	44	44	44	44		
Control	(0)2-10 Vdc					•	•	•		
	4-20 mA (external 500 Ohm Resistor)					•	•	•		
	Floating					•	•	•		
	Two-Position SPDT					•	•	•		
	Two-Position SPST	•	•	•	•	•	•	•		
Fail Safe Action	Closed	Open	Closed	Open	Closed	Open	Closed	Open		
Normal Position (no signal)	Closed	Open	Closed	Open	Closed	Open	Closed	Open		
Actuator Stroke	(degrees)	95° ± 3°	95° ± 3°	95° ± 3°	95° ± 3°	95° ± 3°	95° ± 3°	95° ± 3°		
Timing	(drive/spring return, seconds)	45/25	45/25	45/25	45/25	90/25	90/25	90/25		
Aux Switch	2 x SPDT Add-on									
Feedback	2-10 Vdc Built In					•	•	•		
Valve Features	Trim	Nickel-Plated Brass	Nickel-Plated Brass	Stainless Steel	Stainless Steel	Nickel-Plated Brass	Nickel-Plated Brass	Stainless Steel		
Valve Size (inches)	Cv	Close-off Pressure (psid)	Short Order Codes							
1/2"	0.38	130	VBN2ABPX7202	VBN2ABPX7102	VBN2ABSX7202	VBN2ABSX7102	VBN2ABPX6202	VBN2ABPX6102	VBN2ABSX6202	VBN2ABSX6102
	0.68		VBN2ADPX7202	VBN2ADPX7102	VBN2ADSX7202	VBN2ADSX7102	VBN2ADPX6202	VBN2ADPX6102	VBN2ADSX6202	VBN2ADSX6102
	1.3		VBN2AEPX7202	VBN2AEPX7102	VBN2AESX7202	VBN2AESX7102	VBN2AEPX6202	VBN2AEPX6102	VBN2AESX6202	VBN2AESX6102
	2		VBN2AFPX7202	VBN2AFPX7102	VBN2AFSX7202	VBN2AFSX7102	VBN2AFPX6202	VBN2AFPX6102	VBN2AFSX6202	VBN2AFSX6102
	2.6		VBN2AGPX7202	VBN2AGPX7102	VBN2AGSX7202	VBN2AGSX7102	VBN2AGPX6202	VBN2AGPX6102	VBN2AGSX6202	VBN2AGSX6102
	4.7		VBN2AHPX7202	VBN2AHPX7102	VBN2AHSX7202	VBN2AHSX7102	VBN2AHPX6202	VBN2AHPX6102	VBN2AHSX6202	VBN2AHSX6102
	8		VBN2AJPX7202	VBN2AJPX7102	VBN2AJSX7202	VBN2AJSX7102	VBN2AJPX6202	VBN2AJPX6102	VBN2AJSX6202	VBN2AJSX6102
	11.7*		VBN2AKPX7202	VBN2AKPX7102	VBN2AKSX7202	VBN2AKSX7102	VBN2AKPX6202	VBN2AKPX6102	VBN2AKSX6202	VBN2AKSX6102
	0.31		VBN2BBPX7202	VBN2BBPX7102	VBN2BBSX7202	VBN2BBSX7102	VBN2BBPX6202	VBN2BBPX6102	VBN2BBSX6202	VBN2BBSX6102
	0.63		VBN2BDPX7202	VBN2BDPX7102	VBN2BDSX7202	VBN2BDSX7102	VBN2BDPX6202	VBN2BDPX6102	VBN2BDSX6202	VBN2BDSX6102
	1.2		VBN2BEPX7202	VBN2BEPX7102	VBN2BESX7202	VBN2BESX7102	VBN2BEPX6202	VBN2BEPX6102	VBN2BESX6202	VBN2BESX6102
	2.5		VBN2BGPX7202	VBN2BGPX7102	VBN2BGSX7202	VBN2BGSX7102	VBN2BGPX6202	VBN2BGPX6102	VBN2BGSX6202	VBN2BGSX6102
	4.3		VBN2BHPX7202	VBN2BHPX7102	VBN2BHSX7202	VBN2BHSX7102	VBN2BHPX6202	VBN2BHPX6102	VBN2BHSX6202	VBN2BHSX6102
	7.4		VBN2BJPX7202	VBN2BJPX7102	VBN2BJSX7202	VBN2BJSX7102	VBN2BJPX6202	VBN2BJPX6102	VBN2BJSX6202	VBN2BJSX6102
10.1	VBN2BKPX7202	VBN2BKPX7102	VBN2BKSX7202	VBN2BKSX7102	VBN2BKPX6202	VBN2BKPX6102	VBN2BKSX6202	VBN2BKSX6102		
14.7*	VBN2BLPX7202	VBN2BLPX7102	VBN2BLSX7202	VBN2BLSX7102	VBN2BLPX6202	VBN2BLPX6102	VBN2BLSX6202	VBN2BLSX6102		
29*	VBN2BMPX7202	VBN2BMPX7102	VBN2BMSX7202	VBN2BMSX7102	VBN2BMPX6202	VBN2BMPX6102	VBN2BMSX6202	VBN2BMSX6102		
1"	4.4	100	VBN2CHPX7202	VBN2CHPX7102	VBN2CHSX7202	VBN2CHSX7102	VBN2CHPX6202	VBN2CHPX6102	VBN2CHSX6202	VBN2CHSX6102
	9		VBN2CJXP7202	VBN2CJXP7102	VBN2CJSX7202	VBN2CJSX7102	VBN2CJXP6202	VBN2CJXP6102	VBN2CJSX6202	VBN2CJSX6102
	15.3		VBN2CLPX7202	VBN2CLPX7102	VBN2CLSX7202	VBN2CLSX7102	VBN2CLPX6202	VBN2CLPX6102	VBN2CLSX6202	VBN2CLSX6102
	26		VBN2CMPX7202	VBN2CMPX7102	VBN2CMSX7202	VBN2CMSX7102	VBN2CMPX6202	VBN2CMPX6102	VBN2CMSX6202	VBN2CMSX6102
	44*		VBN2CNPX7202	VBN2CNPX7102	VBN2CNSX7202	VBN2CNSX7102	VBN2CNPX6202	VBN2CNPX6102	VBN2CNSX6202	VBN2CNSX6102
	54*		VBN2CPPX7202	VBN2CPPX7102	VBN2CPSX7202	VBN2CPSX7102	VBN2CPPX6202	VBN2CPPX6102	VBN2CPSX6202	VBN2CPSX6102
	4.4		VBN2DHPX7202	VBN2DHPX7102	VBN2DHSX7202	VBN2DHSX7102	VBN2DHPX6202	VBN2DHPX6102	VBN2DHSX6202	VBN2DHSX6102
	8.3		VBN2DJPX7202	VBN2DJPX7102	VBN2DJSX7202	VBN2DJSX7102	VBN2DJPX6202	VBN2DJPX6102	VBN2DJSX6202	VBN2DJSX6102
	14.9		VBN2DKPX7202	VBN2DKPX7102	VBN2DKSX7202	VBN2DKSX7102	VBN2DKPX6202	VBN2DKPX6102	VBN2DKSX6202	VBN2DKSX6102
	25		VBN2DLPX7202	VBN2DLPX7102	VBN2DLSX7202	VBN2DLSX7102	VBN2DLPX6202	VBN2DLPX6102	VBN2DLSX6202	VBN2DLSX6102
37	VBN2DMPX7202	VBN2DMPX7102	VBN2DMSX7202	VBN2DMSX7102	VBN2DMPX6202	VBN2DMPX6102	VBN2DMSX6202	VBN2DMSX6102		
41*	VBN2DNPX7202	VBN2DNPX7102	VBN2DNSX7202	VBN2DNSX7102	VBN2DNPX6202	VBN2DNPX6102	VBN2DNSX6202	VBN2DNSX6102		
102*	VBN2DSPX7202	VBN2DSPX7102	VBN2DSSX7202	VBN2DSSX7102	VBN2DSPX6202	VBN2DSPX6102	VBN2DSSX6202	VBN2DSSX6102		
23	VBN2ELPX7202	VBN2ELPX7102	VBN2ELSX7202	VBN2ELSX7102	VBN2ELPX6202	VBN2ELPX6102	VBN2ELSX6202	VBN2ELSX6102		
30	VBN2EMPX7202	VBN2EMPX7102	VBN2EMSX7202	VBN2EMSX7102	VBN2EMPX6202	VBN2EMPX6102	VBN2EMSX6202	VBN2EMSX6102		
41	VBN2ENPX7202	VBN2ENPX7102	VBN2ENSX7202	VBN2ENSX7102	VBN2ENPX6202	VBN2ENPX6102	VBN2ENSX6202	VBN2ENSX6102		
74*	VBN2ERPX7202	VBN2ERPX7102	VBN2ERSX7202	VBN2ERSX7102	VBN2ERPX6202	VBN2ERPX6102	VBN2ERSX6202	VBN2ERSX6102		
172*	VBN2E1PX7202	VBN2E1PX7102	VBN2E1SX7202	VBN2E1SX7102	VBN2E1PX6202	VBN2E1PX6102	VBN2E1SX6202	VBN2E1SX6102		
42	VBN2FNPX7202	VBN2FNPX7102	VBN2FNSX7202	VBN2FNSX7102	VBN2FNPX6202	VBN2FNPX6102	VBN2FNSX6202	VBN2FNSX6102		
57	VBN2FPPX7202	VBN2FPPX7102	VBN2FPSX7202	VBN2FPSX7102	VBN2FPPX6202	VBN2FPPX6102	VBN2FPSX6202	VBN2FPSX6102		
71	VBN2FRPX7202	VBN2FRPX7102	VBN2FRSX7202	VBN2FRSX7102	VBN2FRPX6202	VBN2FRPX6102	VBN2FRSX6202	VBN2FRSX6102		
100	VBN2FSPX7202	VBN2FSPX7102	VBN2FSSX7202	VBN2FSSX7102	VBN2FSPX6202	VBN2FSPX6102	VBN2FSSX6202	VBN2FSSX6102		
108*	VBN2FTPX7202	VBN2FTPX7102	VBN2FTSX7202	VBN2FTSX7102	VBN2FTPX6202	VBN2FTPX6102	VBN2FTSX6202	VBN2FTSX6102		
210	VBN2F1PX7202	VBN2F1PX7102	VBN2F1SX7202	VBN2F1SX7102	VBN2F1PX6202	VBN2F1PX6102	VBN2F1SX6202	VBN2F1SX6102		
266*	VBN2F2PX7202	VBN2F2PX7102	VBN2F2SX7202	VBN2F2SX7102	VBN2F2PX6202	VBN2F2PX6102	VBN2F2SX6202	VBN2F2SX6102		
2-1/2"	45	100	VBN2GNPX7202	VBN2GNPX7102	VBN2GNSX7202	VBN2GNSX7102	VBN2GNPX6202	VBN2GNPX6102	VBN2GNSX6202	VBN2GNSX6102
	55		VBN2GPPX7202	VBN2GPPX7102	VBN2GPSX7202	VBN2GPSX7102	VBN2GPPX6202	VBN2GPPX6102	VBN2GPSX6202	VBN2GPSX6102
	72		VBN2GRPX7202	VBN2GRPX7102	VBN2GRSX7202	VBN2GRSX7102	VBN2GRPX6202	VBN2GRPX6102	VBN2GRSX6202	VBN2GRSX6102
	101		VBN2GSPX7202	VBN2GSPX7102	VBN2GSSX7202	VBN2GSSX7102	VBN2GSPX6202	VBN2GSPX6102	VBN2GSSX6202	VBN2GSSX6102
	162		VBN2GUPX7202	VBN2GUPX7102	VBN2GUSX7202	VBN2GUSX7102	VBN2GUPX6202	VBN2GUPX6102	VBN2GUSX6202	VBN2GUSX6102
	202*		VBN2G1PX7202	VBN2G1PX7102	VBN2G1SX7202	VBN2G1SX7102	VBN2G1PX6202	VBN2G1PX6102	VBN2G1SX6202	VBN2G1SX6102
	49		VBN2HNPX7202	VBN2HNPX7102	VBN2HNSX7202	VBN2HNSX7102	VBN2HNPX6202	VBN2HNPX6102	VBN2HNSX6202	VBN2HNSX6102
63	VBN2HPPX7202	VBN2HPPX7102	VBN2HPSX7202	VBN2HPSX7102	VBN2HPPX6202	VBN2HPPX6102	VBN2HPSX6202	VBN2HPSX6102		
82	VBN2HRPX7202	VBN2HRPX7102	VBN2HRSX7202	VBN2HRSX7102	VBN2HRPX6202	VBN2HRPX6102	VBN2HRSX6202	VBN2HRSX6102		
124	VBN2HTPX7202	VBN2HTPX7102	VBN2HTSX7202	VBN2HTSX7102	VBN2HTPX6202	VBN2HTPX6102	VBN2HTSX6202	VBN2HTSX6102		
145*	VBN2HUPX7202	VBN2HUPX7102	VBN2HUSX7202	VBN2HUSX7102	VBN2HUPX6202	VBN2HUPX6102	VBN2HUSX6202	VBN2HUSX6102		

\* Full port ball. No flow characterizing insert.

# 3-Way NPT Control Ball Valves 1/2"-2-1/2", NEMA2

## Common Features

### VB3 (Three-way):

- Equal % A to AB, linear B to AB
- B-port Cv reduction of 20% approximates constant total loop flow
- Nickel-chrome plated brass ball and stem
- Convert to 2-way by plugging B port (plug not provided)
- Spring return actuators field-configurable for A-port normally open or normally closed fail safe.
- Mixing or diverting control with the same valve
- ANSI Class IV (0.01%) seat leakage on both A and B ports
- Available with NEMA 3R actuator enclosure



3-Way

Actuator Features			Non-fail Safe		Fail Safe				Valve Only
Actuator O.S. Number	MN6105A1011	MN7505A2001	MS8105A1030	MS8105A1030	MS7505A2030	MS7505A2030	N/A		
Power Supply	Voltage	24 Vac	24 Vac	24 Vac	24 Vac	24 Vac	24 Vac		
	Frequency	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz		
Power	5 VA	5 VA	8 VA	8 VA	7.5 VA	7.5 VA			
Actuator Torque	(lb.-in.)	44	44	44	44	44	44		
Control	(0)2-10 Vdc		•			•	•		
	4-20 mA (external 500 Ohm Resistor)		•			•	•		
	Floating	•	•			•	•		
	Two-Position SPDT	•	•			•	•		
Two-Position SPST		•			•	•			
Fail Safe Action	Stay in Place	Stay in Place	B-AB Open (FSB)	A-AB Open (FSA)	B-AB Open (FSB)	A-AB Open (FSA)			
Normal Position (no signal)	A-AB Open	A-AB Open	B-AB Open	A-AB Open	B-AB Open	A-AB Open			
Actuator Stroke	(degrees)	95° ± 3°	95° ± 3°	95° ± 3°	95° ± 3°	95° ± 3°	95° ± 3°		
Timing	(drive/spring return, seconds)	95	95	45/25	45/25	90/25	90/25		
Aux Switch	2 x SPDT Add-on	SSW2-1M	SSW2-1M						
Feedback	2-10 Vdc Built In		•			•	•		
Valve Features		Trim	Nickel-Plated Brass	Nickel-Plated Brass	Nickel-Plated Brass	Nickel-Plated Brass	Nickel-Plated Brass	Nickel-Plated Brass	
Valve Size (inches)	Cv	Close-off Pressure (psid)	Short Order Codes						
1/2"	0.33	50	VB33ABPX4000	VB33ABPX5000	VB33ABPX7400	VB33ABPX7300	VB33ABPX6400	VB33ABPX6300	VB33ABPX0000
	0.59		VB33ACPX4000	VB33ACPX5000	VB33ACPX7400	VB33ACPX7300	VB33ACPX6400	VB33ACPX6300	VB33ACPX0000
	1		VB33AEPX4000	VB33AEPX5000	VB33AEPX7400	VB33AEPX7300	VB33AEPX6400	VB33AEPX6300	VB33AEPX0000
	2.4		VB33AFPX4000	VB33AFPX5000	VB33AFPX7400	VB33AFPX7300	VB33AFPX6400	VB33AFPX6300	VB33AFPX0000
	4.3		VB33AHPX4000	VB33AHPX5000	VB33AHPX7400	VB33AHPX7300	VB33AHPX6400	VB33AHPX6300	VB33AHPX0000
	8*		VB33AJPX4000	VB33AJPX5000	VB33AJPX7400	VB33AJPX7300	VB33AJPX6400	VB33AJPX6300	VB33AJPX0000
3/4"	0.4	50	VB33BCPX4000	VB33BCPX5000	VB33BCPX7400	VB33BCPX7300	VB33BCPX6400	VB33BCPX6300	VB33BCPX0000
	0.66		VB33BDPX4000	VB33BDPX5000	VB33BDPX7400	VB33BDPX7300	VB33BDPX6400	VB33BDPX6300	VB33BDPX0000
	1.3		VB33BEPX4000	VB33BEPX5000	VB33BEPX7400	VB33BEPX7300	VB33BEPX6400	VB33BEPX6300	VB33BEPX0000
	2.4		VB33BFPX4000	VB33BFPX5000	VB33BFPX7400	VB33BFPX7300	VB33BFPX6400	VB33BFPX6300	VB33BFPX0000
	3.8		VB33BGPX4000	VB33BGPX5000	VB33BGPX7400	VB33BGPX7300	VB33BGPX6400	VB33BGPX6300	VB33BGPX0000
	7		VB33BJPX4000	VB33BJPX5000	VB33BJPX7400	VB33BJPX7300	VB33BJPX6400	VB33BJPX6300	VB33BJPX0000
	11*		VB33BKPX4000	VB33BKPX5000	VB33BKPX7400	VB33BKPX7300	VB33BKPX6400	VB33BKPX6300	VB33BKPX0000
1"	0.4	50	VB33CCPX4000	VB33CCPX5000	VB33CCPX7400	VB33CCPX7300	VB33CCPX6400	VB33CCPX6300	VB33CCPX0000
	0.65		VB33CDPX4000	VB33CDPX5000	VB33CDPX7400	VB33CDPX7300	VB33CDPX6400	VB33CDPX6300	VB33CDPX0000
	1.3		VB33CEPX4000	VB33CEPX5000	VB33CEPX7400	VB33CEPX7300	VB33CEPX6400	VB33CEPX6300	VB33CEPX0000
	2.3		VB33CFPX4000	VB33CFPX5000	VB33CFPX7400	VB33CFPX7300	VB33CFPX6400	VB33CFPX6300	VB33CFPX0000
	3.5		VB33CGPX4000	VB33CGPX5000	VB33CGPX7400	VB33CGPX7300	VB33CGPX6400	VB33CGPX6300	VB33CGPX0000
	4.5		VB33CHPX4000	VB33CHPX5000	VB33CHPX7400	VB33CHPX7300	VB33CHPX6400	VB33CHPX6300	VB33CHPX0000
	8.6		VB33CJPX4000	VB33CJPX5000	VB33CJPX7400	VB33CJPX7300	VB33CJPX6400	VB33CJPX6300	VB33CJPX0000
	14.9		VB33CKPX4000	VB33CKPX5000	VB33CKPX7400	VB33CKPX7300	VB33CKPX6400	VB33CKPX6300	VB33CKPX0000
	22*		VB33CLPX4000	VB33CLPX5000	VB33CLPX7400	VB33CLPX7300	VB33CLPX6400	VB33CLPX6300	VB33CLPX0000
	31*		VB33CMPX4000	VB33CMPX5000	VB33CMPX7400	VB33CMPX7300	VB33CMPX6400	VB33CMPX6300	VB33CMPX0000
1-1/4"	4.1	50	VB33DHPX4000	VB33DHPX5000	VB33DHPX7400	VB33DHPX7300	VB33DHPX6400	VB33DHPX6300	VB33DHPX0000
	8.7		VB33DJPX4000	VB33DJPX5000	VB33DJPX7400	VB33DJPX7300	VB33DJPX6400	VB33DJPX6300	VB33DJPX0000
	12.7		VB33DKPX4000	VB33DKPX5000	VB33DKPX7400	VB33DKPX7300	VB33DKPX6400	VB33DKPX6300	VB33DKPX0000
	19.4*		VB33DLPX4000	VB33DLPX5000	VB33DLPX7400	VB33DLPX7300	VB33DLPX6400	VB33DLPX6300	VB33DLPX0000
	27		VB33DMPX4000	VB33DMPX5000	VB33DMPX7400	VB33DMPX7300	VB33DMPX6400	VB33DMPX6300	VB33DMPX0000
	34*		VB33DNPX4000	VB33DNPX5000	VB33DNPX7400	VB33DNPX7300	VB33DNPX6400	VB33DNPX6300	VB33DNPX0000
1-1/2"	4	40	VB33EHPX4000	VB33EHPX5000	VB33EHPX7400	VB33EHPX7300	VB33EHPX6400	VB33EHPX6300	VB33EHPX0000
	8.3		VB33EJPX4000	VB33EJPX5000	VB33EJPX7400	VB33EJPX7300	VB33EJPX6400	VB33EJPX6300	VB33EJPX0000
	13.4		VB33EKPX4000	VB33EKPX5000	VB33EKPX7400	VB33EKPX7300	VB33EKPX6400	VB33EKPX6300	VB33EKPX0000
	24		VB33ELPX4000	VB33ELPX5000	VB33ELPX7400	VB33ELPX7300	VB33ELPX6400	VB33ELPX6300	VB33ELPX0000
	32*		VB33EMPX4000	VB33EMPX5000	VB33EMPX7400	VB33EMPX7300	VB33EMPX6400	VB33EMPX6300	VB33EMPX0000
	61*		VB33EPPX4000	VB33EPPX5000	VB33EPPX7400	VB33EPPX7300	VB33EPPX6400	VB33EPPX6300	VB33EPPX0000
2"	24	40	VB33FLPX4000	VB33FLPX5000	VB33FLPX7400	VB33FLPX7300	VB33FLPX6400	VB33FLPX6300	VB33FLPX0000
	38		VB33FNPX4000	VB33FNPX5000	VB33FNPX7400	VB33FNPX7300	VB33FNPX6400	VB33FNPX6300	VB33FNPX0000
	57*		VB33FPPX4000	VB33FPPX5000	VB33FPPX7400	VB33FPPX7300	VB33FPPX6400	VB33FPPX6300	VB33FPPX0000
	83		VB33FRPX4000	VB33FRPX5000	VB33FRPX7400	VB33FRPX7300	VB33FRPX6400	VB33FRPX6300	VB33FRPX0000
	109*		VB33FTPX4000	VB33FTPX5000	VB33FTPX7400	VB33FTPX7300	VB33FTPX6400	VB33FTPX6300	VB33FTPX0000
2-1/2"	38	40	VB33GNPX4000	VB33GNPX5000	VB33GNPX7400	VB33GNPX7300	VB33GNPX6400	VB33GNPX6300	VB33GNPX0000
	74		VB33GRPX4000	VB33GRPX5000	VB33GRPX7400	VB33GRPX7300	VB33GRPX6400	VB33GRPX6300	VB33GRPX0000
	100*		VB33GSPX4000	VB33GSPX5000	VB33GSPX7400	VB33GSPX7300	VB33GSPX6400	VB33GSPX6300	VB33GSPX0000

\* Full port ball. No flow characterizing insert.

Short Order Codes

## 3-Way NPT Control Ball Valves 1/2"-2 1/2", NEMA 3R

Actuator Features			Non-fail Safe		Fail Safe			
<b>Actuator O.S. Number</b>			MN6105A1011	MN7505A2001	MS8105A1030	MS8105A1030	MS7505A2030	MS7505A2030
<b>Power Supply</b>								
Voltage			24 Vac	24 Vac	24 Vac	24 Vac	24 Vac	24 Vac
Frequency			50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz
Power			5 VA	5 VA	8 VA	8 VA	7.5 VA	7.5 VA
<b>Actuator Torque</b> (lb.-in.)			44	44	44	44	44	44
<b>Control</b> (0)2-10 Vdc				•			•	•
4-20 mA (external 500 Ohm Resistor)				•			•	•
Floating			•	•			•	•
Two-Position SPDT			•	•			•	•
Two-Position SPST				•	•	•	•	•
<b>Fail Safe Action</b>			Stay in Place	Stay in Place	B-AB Open (FSB)	A-AB Open (FSA)	B-AB Open (FSB)	A-AB Open (FSA)
<b>Normal Position (no signal)</b>			A-AB Open	A-AB Open	B-AB Open	A-AB Open	B-AB Open	A-AB Open
<b>Actuator Stroke</b> (degrees)			95° ± 3°	95° ± 3°	95° ± 3°	95° ± 3°	95° ± 3°	95° ± 3°
<b>Timing</b> (drive/spring return, seconds)			95	95	45/25	45/25	90/25	90/25
<b>Aux Switch</b> 2 x SPDT Add-on			SSW2-1M	SSW2-1M				
<b>Feedback</b> 2-10 Vdc Built In				•			•	•
<b>Valve Features</b> Trim			Nickel-Plated Brass	Nickel-Plated Brass	Nickel-Plated Brass	Nickel-Plated Brass	Nickel-Plated Brass	Nickel-Plated Brass
Valve Size (inches)	Cv	Close-off Pressure (psid)	Short Order Codes					
3-Way 1/2"	0.33	50	VBN3ABPX4002	VBN3ABPX5002	VBN3ABPX7402	VBN3ABPX7302	VBN3ABPX6402	VBN3ABPX6302
	0.59		VBN3ACPX4002	VBN3ACPX5002	VBN3ACPX7402	VBN3ACPX7302	VBN3ACPX6402	VBN3ACPX6302
	1		VBN3AEPX4002	VBN3AEPX5002	VBN3AEPX7402	VBN3AEPX7302	VBN3AEPX6402	VBN3AEPX6302
	2.4		VBN3AFPX4002	VBN3AFPX5002	VBN3AFPX7402	VBN3AFPX7302	VBN3AFPX6402	VBN3AFPX6302
	4.3		VBN3AHPX4002	VBN3AHPX5002	VBN3AHPX7402	VBN3AHPX7302	VBN3AHPX6402	VBN3AHPX6302
	8*		VBN3AJPX4002	VBN3AJPX5002	VBN3AJPX7402	VBN3AJPX7302	VBN3AJPX6402	VBN3AJPX6302
	0.4		VBN3BCPX4002	VBN3BCPX5002	VBN3BCPX7402	VBN3BCPX7302	VBN3BCPX6402	VBN3BCPX6302
	0.66		VBN3BDPX4002	VBN3BDPX5002	VBN3BDPX7402	VBN3BDPX7302	VBN3BDPX6402	VBN3BDPX6302
	1.3		VBN3BEPX4002	VBN3BEPX5002	VBN3BEPX7402	VBN3BEPX7302	VBN3BEPX6402	VBN3BEPX6302
	2.4		VBN3BFPX4002	VBN3BFPX5002	VBN3BFPX7402	VBN3BFPX7302	VBN3BFPX6402	VBN3BFPX6302
3/4"	3.8	VBN3BGPX4002	VBN3BGPX5002	VBN3BGPX7402	VBN3BGPX7302	VBN3BGPX6402	VBN3BGPX6302	
	7	VBN3BJPX4002	VBN3BJPX5002	VBN3BJPX7402	VBN3BJPX7302	VBN3BJPX6402	VBN3BJPX6302	
	11*	VBN3BKPX4002	VBN3BKPX5002	VBN3BKPX7402	VBN3BKPX7302	VBN3BKPX6402	VBN3BKPX6302	
	0.4	VBN3CCPX4002	VBN3CCPX5002	VBN3CCPX7402	VBN3CCPX7302	VBN3CCPX6402	VBN3CCPX6302	
	0.65	VBN3CDPX4002	VBN3CDPX5002	VBN3CDPX7402	VBN3CDPX7302	VBN3CDPX6402	VBN3CDPX6302	
	1.3	VBN3CEPX4002	VBN3CEPX5002	VBN3CEPX7402	VBN3CEPX7302	VBN3CEPX6402	VBN3CEPX6302	
	2.3	VBN3CFPX4002	VBN3CFPX5002	VBN3CFPX7402	VBN3CFPX7302	VBN3CFPX6402	VBN3CFPX6302	
	3.5	VBN3CGPX4002	VBN3CGPX5002	VBN3CGPX7402	VBN3CGPX7302	VBN3CGPX6402	VBN3CGPX6302	
	4.5	VBN3CHPX4002	VBN3CHPX5002	VBN3CHPX7402	VBN3CHPX7302	VBN3CHPX6402	VBN3CHPX6302	
	8.6	VBN3CJPX4002	VBN3CJPX5002	VBN3CJPX7402	VBN3CJPX7302	VBN3CJPX6402	VBN3CJPX6302	
1"	14.9	VBN3CKPX4002	VBN3CKPX5002	VBN3CKPX7402	VBN3CKPX7302	VBN3CKPX6402	VBN3CKPX6302	
	22*	VBN3CLPX4002	VBN3CLPX5002	VBN3CLPX7402	VBN3CLPX7302	VBN3CLPX6402	VBN3CLPX6302	
	31*	VBN3CMPX4002	VBN3CMPX5002	VBN3CMPX7402	VBN3CMPX7302	VBN3CMPX6402	VBN3CMPX6302	
	4.1	VBN3DHPX4002	VBN3DHPX5002	VBN3DHPX7402	VBN3DHPX7302	VBN3DHPX6402	VBN3DHPX6302	
	8.7	VBN3DJPX4002	VBN3DJPX5002	VBN3DJPX7402	VBN3DJPX7302	VBN3DJPX6402	VBN3DJPX6302	
	12.7	VBN3DKPX4002	VBN3DKPX5002	VBN3DKPX7402	VBN3DKPX7302	VBN3DKPX6402	VBN3DKPX6302	
	19.4*	VBN3DLPX4002	VBN3DLPX5002	VBN3DLPX7402	VBN3DLPX7302	VBN3DLPX6402	VBN3DLPX6302	
	27	VBN3DMPX4002	VBN3DMPX5002	VBN3DMPX7402	VBN3DMPX7302	VBN3DMPX6402	VBN3DMPX6302	
	34*	VBN3DNPX4002	VBN3DNPX5002	VBN3DNPX7402	VBN3DNPX7302	VBN3DNPX6402	VBN3DNPX6302	
	1-1/4"	4	VBN3EHPX4002	VBN3EHPX5002	VBN3EHPX7402	VBN3EHPX7302	VBN3EHPX6402	VBN3EHPX6302
8.3		VBN3EJPX4002	VBN3EJPX5002	VBN3EJPX7402	VBN3EJPX7302	VBN3EJPX6402	VBN3EJPX6302	
13.4		VBN3EKPX4002	VBN3EKPX5002	VBN3EKPX7402	VBN3EKPX7302	VBN3EKPX6402	VBN3EKPX6302	
24		VBN3ELPX4002	VBN3ELPX5002	VBN3ELPX7402	VBN3ELPX7302	VBN3ELPX6402	VBN3ELPX6302	
32*		VBN3EMPX4002	VBN3EMPX5002	VBN3EMPX7402	VBN3EMPX7302	VBN3EMPX6402	VBN3EMPX6302	
61*		VBN3EPPX4002	VBN3EPPX5002	VBN3EPPX7402	VBN3EPPX7302	VBN3EPPX6402	VBN3EPPX6302	
24		VBN3FLPX4002	VBN3FLPX5002	VBN3FLPX7402	VBN3FLPX7302	VBN3FLPX6402	VBN3FLPX6302	
1-1/2"	38	VBN3FNPX4002	VBN3FNPX5002	VBN3FNPX7402	VBN3FNPX7302	VBN3FNPX6402	VBN3FNPX6302	
	57*	VBN3FPPX4002	VBN3FPPX5002	VBN3FPPX7402	VBN3FPPX7302	VBN3FPPX6402	VBN3FPPX6302	
	83	VBN3FRPX4002	VBN3FRPX5002	VBN3FRPX7402	VBN3FRPX7302	VBN3FRPX6402	VBN3FRPX6302	
	109*	VBN3FTPX4002	VBN3FTPX5002	VBN3FTPX7402	VBN3FTPX7302	VBN3FTPX6402	VBN3FTPX6302	
	38	VBN3GNPX4002	VBN3GNPX5002	VBN3GNPX7402	VBN3GNPX7302	VBN3GNPX6402	VBN3GNPX6302	
2"	74	VBN3GRPX4002	VBN3GRPX5002	VBN3GRPX7402	VBN3GRPX7302	VBN3GRPX6402	VBN3GRPX6302	
	100*	VBN3GSPX4002	VBN3GSPX5002	VBN3GSPX7402	VBN3GSPX7302	VBN3GSPX6402	VBN3GSPX6302	

\* Full port ball. No flow characterizing insert.

# 2-Way Flanged Control Ball Valves 4"-6", NEMA 2+3R

## Common Features

- Maximum static pressure 240 psi (-22°F to 250°F)
- Spring return actuators field-configurable for A-port normally open or normally closed fail safe
- Use globe valves for steam ratings
- Medium: Water/glycol solutions up to 50%
- ANSI class 125 flanged connections
- ANSI class IV leakage (0.01% of Cv)
- Valve ball and stem 316 stainless steel
- Equal percentage flow (laser-milled stainless steel ball)
- Cast iron body construction -- not for use with open systems such as cooling towers

**5-YEAR  
LIMITED  
WARRANTY**



2-Way

Actuator Features		Non-fail Safe		Fail Safe		Valve Only
Actuator O.S. Number		MN6110A1003 4 to 5 in.	MN7510A2001 4 to 5 in.	MS8110A1008 4 to 5 in.	MS7510A2008 4 to 5 in.	N/A
		MN6134A1003 6 in.	MN7234A2008 6 in.	MS8120A1007 6 in.	MS7520A2007 6 in.	
Power Supply	Voltage	24 Vac	24 Vac	24 Vac	24 Vac	
	Frequency	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	
	Power	5 / 9 VA	5 / 9 VA	30 / 40 VA	14 / 16 VA	
Actuator Torque	(lb.-in.)	88/300	88/300	88/175	88/175	
Control	(0)2-10 Vdc		•		•	
	4-20 mA (external 500 Ohm Resistor)		•		•	
	Floating	•	•		•	
	Two-Position SPDT	•	•		•	
	Two-Position SPST	•	•	•	•	
Fail Safe Action	(field configurable)	Stay in Place	Stay in Place	A-AB Closed	A-AB Closed	
Normal Position (no signal)	(field configurable)	Closed	Closed	Closed	Closed	
Actuator Stroke	(degrees)	95°	95°	95°	95°	
Timing	(drive/spring return, seconds)	95	95	45/20	90/20	
Aux Switch	2 x SPDT Add-on	SW2-US	SW2-US	SW2-US	SW2-US	
Feedback	2-10 Vdc Built In		•		•	
Valve Features	Trim	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel


Valve Size (inches)	Cv*	Close-off Pressure (psid)	Valve O.S. Number					
			NEMA 2 Actuator					
4"	91	70	VBF2JC1S0A	VBF2JC1S0B	VBF2JC1S0C	VBF2JC1S0D	VBF2JC1S0X	
	118		VBF2JT1S0A	VBF2JT1S0B	VBF2JT1S0C	VBF2JT1S0D	VBF2JT1S0X	
	152		VBF2JU1S0A	VBF2JU1S0B	VBF2JU1S0C	VBF2JU1S0D	VBF2JU1S0X	
	197		VBF2J11S0A	VBF2J11S0B	VBF2J11S0C	VBF2J11S0D	VBF2J11S0X	
	254		VBF2J21S0A	VBF2J21S0B	VBF2J21S0C	VBF2J21S0D	VBF2J21S0X	
	5"		144	VBF2KU1S0A	VBF2KU1S0B	VBF2KU1S0C	VBF2KU1S0D	VBF2KU1S0X
			185	VBF2K11S0A	VBF2K11S0B	VBF2K11S0C	VBF2K11S0D	VBF2K11S0X
			240	VBF2K21S0A	VBF2K21S0B	VBF2K21S0C	VBF2K21S0D	VBF2K21S0X
			309	VBF2K31S0A	VBF2K31S0B	VBF2K31S0C	VBF2K31S0D	VBF2K31S0X
			400	VBF2K41S0A	VBF2K41S0B	VBF2K41S0C	—	VBF2K41S0X
6"	208	VBF2L11S0A	VBF2L11S0B	VBF2L11S0C	VBF2L11S0D	VBF2L11S0X		
	268	VBF2L21S0A	VBF2L21S0B	VBF2L21S0C	VBF2L21S0D	VBF2L21S0X		
	346	VBF2L41S0A	VBF2L41S0B	VBF2L41S0C	—	VBF2L41S0X		
	441	VBF2L51S0A	VBF2L51S0B	VBF2L51S0C	—	VBF2L51S0X		
	577	VBF2L61S0A	VBF2L61S0B	VBF2L61S0C	—	VBF2L61S0X		
	650	VBF2L71S0A	VBF2L71S0B	VBF2L71S0C	—	VBF2L71S0X		
			NEMA 3R Actuator					
4"	91	70	VBF2JC1SRA	VBF2JC1SRB	VBF2JC1SRC	VBF2JC1SRD	—	
	118		VBF2JT1SRA	VBF2JT1SRB	VBF2JT1SRC	VBF2JT1SRD	—	
	152		VBF2JU1SRA	VBF2JU1SRB	VBF2JU1SRC	VBF2JU1SRD	—	
	197		VBF2J11SRA	VBF2J11SRB	VBF2J11SRC	VBF2J11SRD	—	
	254		VBF2J21SRA	VBF2J21SRB	VBF2J21SRC	VBF2J21SRD	—	
5"	144	VBF2KU1SRA	VBF2KU1SRB	VBF2KU1SRC	VBF2KU1SRD	—		
	185	VBF2K11SRA	VBF2K11SRB	VBF2K11SRC	VBF2K11SRD	—		
	240	VBF2K21SRA	VBF2K21SRB	VBF2K21SRC	VBF2K21SRD	—		
	309	VBF2K31SRA	VBF2K31SRB	VBF2K31SRC	VBF2K31SRD	—		
6"	400	VBF2K41SRA	VBF2K41SRB	VBF2K41SRC	—	—		
	208	VBF2L11SRA	VBF2L11SRB	VBF2L11SRC	VBF2L11SRD	—		
	268	VBF2L21SRA	VBF2L21SRB	VBF2L21SRC	VBF2L21SRD	—		
	346	VBF2L41SRA	VBF2L41SRB	VBF2L41SRC	—	—		
	441	VBF2L51SRA	VBF2L51SRB	VBF2L51SRC	—	—		
	577	VBF2L61SRA	VBF2L61SRB	VBF2L61SRC	—	—		
	650	VBF2L71SRA	VBF2L71SRB	VBF2L71SRC	—	—		

\* Maximum flow 700 gpm

# 3-Way Flanged Control Ball Valves 4"-6", NEMA 2+3R

## Common Features

- Mixing or diverting with the same 3-way valve
- Spring return actuators field-configurable for A-port normally open or normally closed fail safe
- Globe valve A-B-AB flow pattern (side B port)
- Valve ball and stem 316 stainless steel
- Three-way: A-AB equal percentage, B-AB linear (80% of Cv on B-port) (laser-milled ball)
- ANSI Class IV (0.01%) seat leakage on A port, only
- Cast iron body construction -- not for use with open systems such as cooling towers

Actuator Features		Non-fail Safe		Fail Safe		Valve Only
Actuator O.S. Number		MN6110A1003 4 to 5 in.	MN7510A2001 4 to 5 in.	MS8110A1008 4 to 5 in.	MS7510A2008 4 to 5 in.	N/A
		MN6134A1003 6 in.	MN7234A2008 6 in.	MS8120A1007 6 in.	MS7520A2007 6 in.	
Power Supply	Voltage	24 Vac	24 Vac	24 Vac	24 Vac	
	Frequency	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	
	Power	5 / 9 VA	5 / 9 VA	30 / 40 VA	14 / 16 VA	
Actuator Torque	(lb.-in.)	88/300	88/300	88/175	88/175	
Control	(0)2-10 Vdc		•		•	
	4-20 mA (external 500 Ohm Resistor)		•		•	
	Floating	•	•		•	
	Two-Position SPDT	•	•		•	
	Two-Position SPST	•	•	•	•	
Fail Safe Action	(field configurable)	Stay in Place	Stay in Place	A-AB Closed	A-AB Closed	
Normal Position (no signal)	(field configurable)	A-AB Closed	A-AB Closed	A-AB Closed	A-AB Closed	
Actuator Stroke	(degrees)	95°	95°	95°	95°	
Timing	(drive/spring return, seconds)	95	95	45/20	90/20	
Aux Switch	2 x SPDT Add-on	SW2-US	SW2-US	SW2-US	SW2-US	
Feedback	2-10 Vdc Built In		•		•	
Valve Features	Trim	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel

Valve Size (inches)	Cv*	Close-off Pressure (psid)	Valve O.S. Number				
			NEMA 2 Actuator				
4"	91	70	VBF3JS1S0A	VBF3JS1S0B	VBF3JS1S0C	VBF3JS1S0D	VBF3JS1S0X
	118		VBF3JT1S0A	VBF3JT1S0B	VBF3JT1S0C	VBF3JT1S0D	VBF3JT1S0X
	152		VBF3JU1S0A	VBF3JU1S0B	VBF3JU1S0C	VBF3JU1S0D	VBF3JU1S0X
	197		VBF3J11S0A	VBF3J11S0B	VBF3J11S0C	VBF3J11S0D	VBF3J11S0X
	254		VBF3J21S0A	VBF3J21S0B	VBF3J21S0C	VBF3J21S0D	VBF3J21S0X
	327		VBF3J31S0A	VBF3J31S0B	VBF3J31S0C	VBF3J31S0D	VBF3J31S0X
5"	144		VBF3KU1S0A	VBF3KU1S0B	VBF3KU1S0C	VBF3KU1S0D	VBF3KU1S0X
	185		VBF3K11S0A	VBF3K11S0B	VBF3K11S0C	VBF3K11S0D	VBF3K11S0
	240		VBF3K21S0A	VBF3K21S0B	VBF3K21S0C	VBF3K21S0D	VBF3K21S0X
	309		VBF3K31S0A	VBF3K31S0B	VBF3K31S0C	VBF3K31S0D	VBF3K31S0X
	400		VBF3K41S0A	VBF3K41S0B	VBF3K41S0C	—	VBF3K41S0X
6"	208		VBF3L11S0A	VBF3L11S0B	VBF3L11S0C	VBF3L11S0D	VBF3L11S0X
	268		VBF3L21S0A	VBF3L21S0B	VBF3L21S0C	VBF3L21S0D	VBF3L21S0X
	346		VBF3L41S0A	VBF3L41S0B	VBF3L41S0C	—	VBF3L41S0X
	441		VBF3L51S0A	VBF3L51S0B	VBF3L51S0C	—	VBF3L51S0X
	577		VBF3L61S0A	VBF3L61S0B	VBF3L61S0C	—	VBF3L61S0X
	650		VBF3L71S0A	VBF3L71S0B	VBF3L71S0C	—	VBF3L71S0X
			NEMA 3R Actuator				
4"	91	70	VBF3JS1SRA	VBF3JS1SRB	VBF3JS1SRC	VBF3JS1SRD	—
	118		VBF3JT1SRA	VBF3JT1SRB	VBF3JT1SRC	VBF3JT1SRD	—
	152		VBF3JU1SRA	VBF3JU1SRB	VBF3JU1SRC	VBF3JU1SRD	—
	197		VBF3J11SRA	VBF3J11SRB	VBF3J11SRC	VBF3J11SRD	—
	254		VBF3J21SRA	VBF3J21SRB	VBF3J21SRC	VBF3J21SRD	—
	327		VBF3J31SRA	VBF3J31SRB	VBF3J31SRC	VBF3J31SRD	—
5"	144		VBF3KU1SRA	VBF3KU1SRB	VBF3KU1SRC	VBF3KU1SRD	—
	185		VBF3K11SRA	VBF3K11SRB	VBF3K11SRC	VBF3K11SRD	—
	240		VBF3K21SRA	VBF3K21SRB	VBF3K21SRC	VBF3K21SRD	—
	309		VBF3K31SRA	VBF3K31SRB	VBF3K31SRC	VBF3K31SRD	—
	400		VBF3K41SRA	VBF3K41SRB	VBF3K41SRC	—	—
6"	208		VBF3L11SRA	VBF3L11SRB	VBF3L11SRC	VBF3L11SRD	—
	268		VBF3L21SRA	VBF3L21SRB	VBF3L21SRC	VBF3L21SRD	—
	346		VBF3L41SRA	VBF3L41SRB	VBF3L41SRC	—	—
	441		VBF3L51SRA	VBF3L51SRB	VBF3L51SRC	—	—
	577		VBF3L61SRA	VBF3L61SRB	VBF3L61SRC	—	—
	650		VBF3L71SRA	VBF3L71SRB	VBF3L71SRC	—	—

\* Maximum flow 700 gpm

**5-YEAR  
LIMITED  
WARRANTY**



3-Way

# Flanged Control Ball Valves 2½" - 6"

## Common Features

- Sizes from 2-1/2" to 6" with ANSI Class 125 flanged connections
- Equal percentage or linear flow characteristics
- Choice of four actuator mounting positions on the 4", 5" and 6" valve
- Field configurable for normally open or normally closed fail safe position
- Removable manual operating handle to control valve during installation or in event of power failure (2-1/2" and 3" models)
- ANSI Class leakage specifications:
  - 2-way; ANSI Class IV leakage (0.01% of Cv)
  - 3-way; A to AB; ANSI Class IV leakage (0.01% of Cv)
  - 3-way; B to AB; ANSI Class III leakage (0.1% of Cv)
- Wide range of Cv choices from 63 to 360
- Valve ball and stem 316 stainless steel (4" to 6" models)



**5-YEAR  
LIMITED  
WARRANTY**

Actuator Features		Non-fail Safe							
Actuator O.S. Number		MN7505A2001	MN7510A2001	MS7505A2030	MS7510A2008	MS7520A2007	MS8105A1030	MS8110A1008	MS8120A1007
Power Supply	Voltage	24 Vac	24 Vac	24 Vac	24 Vac	24 Vac	24 Vac	24 Vac	24 Vac
	Frequency	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz
	Power (lb.-in.)	5/9 VA	5/9 VA	7.5 VA	14 VA	16 VA	8 VA	30 VA	40 VA
Actuator Torque	(lb.-in.)	44	88	44	88	175	44	88	175
Linkage Stem Force	(lbs.)	58	117	58	17	234	58	117	234
Control	(0)2-10 Vdc	•	•	•	•	•			
	4-20 mA (external 500 Ohm Resistor)	•	•	•	•	•			
	Floating	•	•	•	•	•			
	Two-Position SPDT	•	•	•	•	•			
	Two-Position SPST	•	•	•	•	•	•	•	•
Fail Safe Action		Stay in place	Stay in place	Open or Closed (config)/ A to AB Open or Closed (config)				A-AB Open	Open or Closed (config)
	Normal Position (no signal) (field configurable)	A to AB Closed	Closed/A to AB Closed						
Actuator Stroke	(degrees)	95	95	95	95	95	95	95	95
Timing	(seconds)	95	95	90	90	90	45	45	45
High Temperature Kit	Steam Application								
Aux Switch	SPDT Built In	SSW2-1M	SW2-US		SW3-US	SW2-US		SW2-US	
	1 x SPDT Add-On								
	2 x SPDT Add-On								
Feedback	(0)2-10 Vdc Built In		•	•	•	•			SW-US
	500 Ohm Add-On								
	2 kOhm Add-On								

	Valve Size (inches)	Cv	Valve Type	ANSI Class	Max Static Water Pressure	Flow Characteristic	Valve Trim	Valve OS Number	Close-off Pressure, psid													
2-Way	2-1/2"	63	On/Off, Mod	125	360 psi @ 250°F	Equal %	Stainless Steel	VBF5011A1734														
			On/Off, Mod	125	360 psi @ 250°F	Equal %	Stainless Steel	VBF5011A1734														
	3"	100	On/Off, Mod	125	360 psi @ 250°F	Equal %	Stainless Steel	VBF5011A1767														
			On/Off, Mod	125	360 psi @ 250°F	Equal %	Stainless Steel	VBF5011A1767														
	4"	160	On/Off, Mod	125	240 psig @ 250°F	Equal %	Stainless Steel	VBF5011A1858														
			On/Off, Mod	125	240 psig @ 250°F	Equal %	Stainless Steel	VBF5011A1858														
5"	250	On/Off, Mod	125	240 psig @ 250°F	Equal %	Stainless Steel	VBF5011A1882															
		On/Off, Mod	125	240 psig @ 250°F	Equal %	Stainless Steel	VBF5011A1882															
6"	360	On/Off, Mod	125	240 psig @ 250°F	Equal %	Stainless Steel	VBF5011A1916															
		On/Off, Mod	125	240 psig @ 250°F	Equal %	Stainless Steel	VBF5011A1916															
3-Way	2.5"	63	Mixing, Diverting	125	360 psi @ 250°F	Equal %	Brass	VBF5013B1003														
			Mixing, Diverting	125	360 psi @ 250°F	Equal %	Brass	VBF5013B1003														
	3"	100	Mixing, Diverting	125	360 psi @ 250°F	Equal %	Brass	VBF5013B1011														
			Mixing, Diverting	125	360 psi @ 250°F	Equal %	Brass	VBF5013B1011														
	4"	160	Mixing, Diverting	125	240 psig @ 250°F	Equal %	Stainless Steel	VBF5013B1029														
			Mixing, Diverting	125	240 psig @ 250°F	Equal %	Stainless Steel	VBF5013B1029														
	5"	250	Mixing, Diverting	125	240 psig @ 250°F	Equal %	Stainless Steel	VBF5013B1037														
			Mixing, Diverting	125	240 psig @ 250°F	Equal %	Stainless Steel	VBF5013B1037														
	6"	360	Mixing, Diverting	125	240 psig @ 250°F	Equal %	Stainless Steel	VBF5013B1045														
			Mixing, Diverting	125	240 psig @ 250°F	Equal %	Stainless Steel	VBF5013B1045														





**Get the job done on time and under budget.**

The new MVN rotary valve actuator for use with control ball valves and pressure regulated control valves reduces labor costs associated with mechanical and electrical installation, commissioning and service. This innovative design makes assembly easy, saving you time and money.



Exclusive click-on assembly

**Tool-Free Installation**

The unique design dramatically cuts installation time. Honeywell's exclusive click-on assembly simply snaps onto the valve — no tools needed. And the position indicator, another Honeywell exclusive, shows the position of the valve from any angle for easy commissioning. From testing the installation to monitoring the valve position, you'll spend less time on the job.



Position indicator

**Installation Flexibility**

The MVN actuator not only saves time, it saves space. Thanks to the compact design, you can use the MVN in confined areas or simply take advantage of more working room in normal spaces. Plus, multiple wiring options allow flexible electrical installation. Options such as a removable terminal block, an attached cable and a conduit connection, give installers the flexibility to meet the requirements for a specific project.



Removable terminal block

**Just Your Size**

Because of the lower torque requirement of Honeywell valves, the MVN actuator can be used on valves up to 1-1/4" diameter. Just click the MVN onto any of a wide range of compatible commercial valves and you're ready to begin commissioning.

**Backed by Honeywell**

You take pride in doing the job right and your customers depend on you. You need to be able to trust the products you use and you can count on Honeywell. From a five-year warranty to training and technical expertise you can depend on Honeywell support just as you depend on Honeywell products.



Conduit connection

**The Right Choice, MVN**

Fast, flexible installation combined with easy commissioning and service help you finish your projects on time and under budget.



## Damper, Valve and VFD Pricing/ Job Estimating Tools

These tools can be used for the selection and pricing of dampers, valves and VFDs. Click on the “Commercial Components Estimating Tools” link at [customer.honeywell.com](http://customer.honeywell.com).

## Product Selection Tool

Available for sizing and estimating of valves, dampers and actuators. Click on the “Product Selection Tool” link at [customer.honeywell.com](http://customer.honeywell.com).

## Fast Track Program

Reduce the amount of time. The easy-to-use project management and product configuration tool can help you turn estimates into orders while reducing application engineering, delivery and installation time.



- The Fast Track project management and specification tool simplifies valve/actuator assembly selection
- Estimates can be easily compiled and shared or saved for additional editing
- Project data flows into your submittal documentation or transferred to other users

## Specification Take-Off Service

The Honeywell Take-Off Service can create product schedules from:

- Product specifications
- Existing schedules
- Drawings
- Obsolete or competitive schedules

Our goal is to help provide you with the best possible solution for each job.



### Products Supported by the Take-Off Service

- Commercial Water and Steam Valves
- Valve Actuators (Electric or Pneumatic)
- Commercial Control Dampers
- Custom Dampers
- Damper Actuators (Electric or Pneumatic)
- Variable Frequency Drives

1. Submit your information in one of the following ways:
  - a) Email to [takeoff.service@honeywell.com](mailto:takeoff.service@honeywell.com) (preferred)
  - b) Fax toll-free to 1-877-880-3386
2. Include your desired turn-around time.
3. Take-Off Service staff will send you a confirmation that your email or fax was received. We always attempt to have your request finished as soon as possible. Please note, however, that the quality of the submitted information largely determines the turn-around time. We will work closely with you to ensure that we have enough information to move forward as quickly as possible.
4. A final product schedule document will be returned to you following take-off completion.

### Included In the Final Take-Off Document

We send a comprehensive spreadsheet, which contains:

- A complete product schedule
- Base price
- Directions on how to order Honeywell products
- Links to product submittals
- Quote identification number

### Questions

If you have questions about the Honeywell Take-Off Service, please call the dedicated Take-Off Service phone number at 1.888.664.4092 or email us at [takeoff.service@honeywell.com](mailto:takeoff.service@honeywell.com).

# Contact Information and Websites

## Main Customer Web Site

[customer.honeywell.com](http://customer.honeywell.com)

## Commercial Components Technical Hotline

763-954-6464 or 888-516-9347

[techmail@honeywell.com](mailto:techmail@honeywell.com)

## Product Drop Ship (PDS) Team (Dampers)

763-954-4140

[ECC-ProductDropShip@honeywell.com](mailto:ECC-ProductDropShip@honeywell.com)

## Literature Ordering

[literature.honeywell.com](http://literature.honeywell.com)

## Honeywell Promotional Materials

[honeywell.promocollection.com](http://honeywell.promocollection.com)

## Submittal Literature

Log in to [customer.honeywell.com](http://customer.honeywell.com) and go to the Welcome Box and select the "Submittal Literature" link.

## Online and Face to Face Training - Buildings University

[customer.honeywell.com/buildingsuniversity](http://customer.honeywell.com/buildingsuniversity)

## Global Field Devices Application and Selection Guide

#63-9271 at [literature.honeywell.com](http://literature.honeywell.com)

## Specification Take-Off Service

1.888.664.4092, [takeoff.service@honeywell.com](mailto:takeoff.service@honeywell.com)

## Fast Track Program

[customer.honeywell.com/go/fasttrack](http://customer.honeywell.com/go/fasttrack)



## Learn More

For more information on Honeywell VBN Control Ball Valves, call **1-800-466-3993** or visit [buildingcontrols.honeywell.com](http://buildingcontrols.honeywell.com).

## Automation and Control Solutions

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