



CONTROL YOUR ENVIRONMENT WITH
HONEYWELL VALVES AND ACTUATORS

Application And Selection Guide

How to use this brochure

All pages in this literature are constructed in one of two ways:

For unassembled product:

As a reference, pictures will represent the valves and actuators separately; and part numbers are highlighted in blue. To order a complete product one part# must be chosen from each blue box.

For factory assembled product:

The complete assembled OS# will be displayed in the body of the chart (except cartridge cage valves, both an actuator and valve must be chosen). Pictures will also reference the factory assembled configuration.

Additional product information

To find more detailed information on the individual products included in this document, go to: <http://customer.honeywell.com> and use the search text box to quickly locate product specific content.

SUPPORT

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CONTROL VALVE APPLICATIONS

		Pipe Size (Inches)												
		1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	4	5	6	8 ... 20	
Unitary Equipment	Fan Coil Units	Fan Coil/Zone Valve												
		Cartridge Cage Valve												
		Cartridge Globe Valve												
	Unit Ventilators	Fan Coil/Zone Valve												
		Cartridge Cage Valve												
		Cartridge Globe Valve												
	Unit Heaters	Fan Coil/Zone Valve												
		Cartridge Cage Valve												
		Cartridge Globe Valve												
	Reheat Coils	Fan Coil/Zone Valve												
		Cartridge Cage Valve												
		Cartridge Globe Valve												
	Blower Coil	Fan Coil/Zone Valve												
		Cartridge Cage Valve												
	Convectors	Fan Coil/Zone Valve												
		Cartridge Cage Valve												
		Cartridge Globe Valve												
	Radiant Panels	Fan Coil/Zone Valve												
Cartridge Cage Valve														
Cartridge Globe Valve														
Chilled Ceiling	Cartridge Cage Valve													
	Cartridge Globe Valve													
Air Handling Units	Humidifiers	Threaded Globe Valve												
								Flanged Globe Valve						
	AHU Heating and Cooling Coils	Threaded Globe Valve												
		Control Ball Valve												
								Flanged Globe Valve						
	Thermal Storage						Butterfly Valve							
								Flanged Globe Valve						
	Cooling Towers						Butterfly Valve							
								Flanged Globe Valve						
	Boiler System						Butterfly Valve							
								Flanged Globe Valve						
	Chiller System	Threaded Globe Valve												
							Butterfly Valve							
								Flanged Globe Valve						
	Heat Reclaim	Threaded Globe Valve												
	Greenhouse Applications	Threaded Globe Valve												
Heat Exchangers (Steam)	Threaded Globe Valve													
		1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	4	5	6	8 ... 20	

Fan Coil and Zone Valves

Honeywell Fan Coil and Zone Valves family (VU Series) have withstood the test of time as a reliable and dependable product.

With a Cv range suitable for anything from radiator panels to fan coil units and both normally open and normally closed spring return functions it's easy to select a model that fits your needs. Additionally you can choose between line voltage or low voltage actuators as well as three different types of pipe fittings: Female NPT, Sweat, and Inverted flare.

Common Features

- Maximum static water pressure: 300 psig
- Ambient temp range: 34-104°F (at 34-200°F medium temperature)
- 3-way valve is diverting type
- Long service life with patented ball seal
- Quick opening / soft closing for optimal 2-position control
- Manual opener

Actuator O.S. Number	VU443A1008	VU443A1024	VU443A1115
Power Supply	120 Vac	208 Vac	230 Vac
Power Cycle Rate	60 Hz	60 Hz	50 / 60 Hz
Control	2-Position SPST	•	•
Aux Switch	1 x SPST (built in)	•	•
Stroke Timing (Max)	15 sec.	15 sec.	15 sec.
Electrical Connections	6 in.	18 in.	6 in.
Manual Override (on power failure, auto reset)	•	•	•
Conduit Connection	1/2 in.	•	•
Nickel plated motors	Extra corrosion resistance		



2-Way

Valve Size (inches)	Flow Capacity (Cv)	Valve Action	Connection Type	Valve O.S. Number			
1/2 in.	1.0 Cv	Normally Open	NPT (Internal Thread)	VU52N1027			
	1.0 Cv		Sweat	VU52S2002			
	2.5 Cv		NPT (Internal Thread)	VU52N1035			
	2.5 Cv		Sweat	VU52S2010			
	3.5 Cv		NPT (Internal Thread)	VU52N1019			
	3.5 Cv		Sweat	VU52S2028			
	3.5 Cv		Sweat	VU52S2036			
	5.0 Cv		Sweat	VU52S2044			
	8.0 Cv		NPT (Internal Thread)	VU52N1001			
	8.0 Cv		Sweat	VU52S2051			
1/2 in.	1.0 Cv	Normally Closed	NPT (Internal Thread)	VU53N1041	50	50	50
	1.0 Cv		Sweat	VU53S2018	50	50	50
	2.5 Cv		NPT (Internal Thread)	VU53N1058	30	30	30
	2.5 Cv		Sweat	VU53S2026	30	30	30
	3.5 Cv		Inverted Flare	VU53F1024	20	20	20
	3.5 Cv		NPT (Internal Thread)	VU53N1009	20	20	20
	3.5 Cv		Sweat	VU53S2034	20	20	20
	3.5 Cv		NPT (Internal Thread)	VU53N1033	20	20	20
	3.5 Cv		Sweat	VU53S2042	20	20	20
	5.0 Cv		NPT (Internal Thread)	VU53N1066	15	15	15
3/4 in.	5.0 Cv		Sweat	VU53S2075	15	15	15
	8.0 Cv		NPT (Internal Thread)	VU53N1017	10	10	10
	8.0 Cv		Sweat	VU53S2059	10	10	10
	8.0 Cv		NPT (Internal Thread)	VU53N1026	10	10	10
	8.0 Cv		Sweat	VU53S2000	10	10	10
Valve Size (inches)	Flow Capacity (Cv)	Valve Action	Connection Type	Valve O.S. Number			
1/2 in.	4.0 Cv	Diverting	Inverted Flare	VU54F1022			
	4.0 Cv		NPT (Internal Thread)	VU54N1007			
	4.0 Cv		Sweat	VU54S2008			
3/4 in.	4.0 Cv		NPT (Internal Thread)	VU54N1031			
	5.0 Cv		NPT (Internal Thread)	VU54N1049			
	5.0 Cv		Sweat	VU54S2057			
	7.0 Cv		NPT (Internal Thread)	VU54N1015			
	7.0 Cv		Sweat	VU54S2016			
	7.0 Cv		NPT (Internal Thread)	VU54N1023			
1 in.	7.0 Cv		Sweat	VU54S2024			



3-Way



VU443A1180	VU443E1009	VU444A1007	VU444A1098	VU444A1106	VU444A1155	VU843A1004	VU843A1087	VU844A1003	VU844A1060
120 Vac	120 Vac	120 Vac	227 Vac	230 Vac	120 Vac	24 Vac	24 Vac	24 Vac	24 Vac
60 Hz	60 Hz	60 Hz	60 Hz	50 / 60 Hz	60 Hz	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz
•	•	•	•	•	•	•	•	•	•
	•								
15 sec.	15 sec.	15 sec.	15 sec.	15 sec.	15 sec.	15 sec.	15 sec.	15 sec.	15 sec.
6 in.	18 in.	6 in.	18 in.	6 in.	6 in.	6 in.	6 in.	6 in.	6 in.
•	•	•	•	•	•	•	•	•	•
•	•	•	•	•	•	•	•	•	•
•					•		•		•
2-way Valves Close-off									
		50	50	50	50			50	50
		50	50	50	50			50	50
		30	30	30	30			30	30
		30	30	30	30			30	30
		20	20	20	20			20	20
		20	20	20	20			20	20
		20	20	20	20			20	20
		15	15	15	15			15	15
		10	10	10	10			10	10
		10	10	10	10			10	10
50	50					50	50		
50	50					50	50		
30	30					30	30		
30	30					30	30		
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15	15					15	15		
15	15					15	15		
10	10					10	10		
10	10					10	10		
10	10					10	10		
10	10					10	10		
3-way Valves Close-off									
		20	20	20	20			20	20
		20	20	20	20			20	20
		10	10	10	10			10	10
		20	20	20	20			20	20
		15	15	15	15			15	15
		15	15	15	15			15	15
		10	10	10	10			10	10
		10	10	10	10			10	10
		10	10	10	10			10	10
		10	10	10	10			10	10

Cartridge Cage Valves

Honeywell Cartridge Cage Valves family (VC Series) are highly serviceable and completely rebuildable and with millions of valves currently in service, it's a premium valve for both long term use and economy.

2-position (both low and line voltage), floating, and modulating actuators exist to cover all needs, and fail-safe actuators are available with configurable open/closed functionality on power failure.

Since these valves are not sensitive to flow direction; 3-way valves can do both mixing and diverting without changing anything except the piping, which makes this one of the most adaptable valves available.

Common Features

- 2-way straight-through or 3-way mixing/diverting body configurations
- Corrosion resistant, engineered plastic actuator housing
- 60 psid close-off on all models
- Fast acting 2-position actuator with soft close technology
- Replaceable cartridge rebuilds valve to factory specifications without removing valve body from piping
- 300 psi operating pressure
- Combination position indicator/manual flush-and-fill manual lever on all actuators



2-Way



3-Way Mixing/ Diverting

Actuator O.S. Number		VC6834ZZ11
Power Supply		24 Vac
Power Cycle Rate		50/60 Hz
Control	2-10 Vdc	
	4-20 mA (500 Ohm resistor)	
	Floating	•
	2-Position SPDT	•
	2-Position SPST	
	PWM	
Close-off	psi	60
Aux Switch		•
Stroke timing (60 Hz)	(seconds)	120
Manual Override		•
Position Indicator		•
Conduit Connection	(3/8 in.)	•
Plenum Cable		•
Corrosion Resistant		•
Fail Safe Action		Stay in Place

Valve Size (inches)	Flow Capacity (Cv) [kvs]	Connection Type	Flow Characteristic	
1/2 in.	0.7 [0.6]	NPT (Internal Thread)	Modified Equal %	VCZ BB 3500
	0.7 [0.6]	Sweat		VCZ AA 3500
	1.1 [0.9]	NPT (Internal Thread)		VCZ BB 3600
	1.1 [0.9]	Sweat		VCZ AA 3600
	1.8 [1.5]	Sweat		VCZ AA 3800
	1.9 [1.6]	NPT (Internal Thread)		VCZ BB 3800
	2.3 [2.0]	Sweat		VCZ AA 3400
	2.5 [2.1]	NPT (Internal Thread)		VCZ BB 3400
	3.3 [2.8]	NPT (Internal Thread)	Linear	VCZ BB 3100
	3.3 [2.8]	Sweat		VCZ AA 3100
3/4 in.	3.9 [3.3]	NPT (Internal Thread)	Modified Equal %	VCZ AL 3400
	3.9 [3.3]	Sweat		VCZ AM 3400
	4.7 [4.0]	NPT (Internal Thread)	Linear	VCZ AL 3100
	4.7 [4.0]	Sweat		VCZ AM 3100
1 in.	4.3 [3.7]	NPT (Internal Thread)	Modified Equal %	VCZ AR 3400
	4.3 [3.7]	Sweat		VCZ AS 3400
	6.6 [5.7]	NPT (Internal Thread)	Linear	VCZ AR 3100
	6.6 [5.7]	Sweat		VCZ AS 3100
1-1/4 in.	7 [6.0]	NPT (Internal Thread)	Linear	VCZ BD 3100
	7 [6.0]	Sweat		VCZ BE 3100
Valve Size (inches)	Flow Capacity (Cv) [kvs]	Connection Type	Flow Characteristic	
1/2 in.	0.8 [0.7]	NPT (Internal Thread)	Linear	VCZ NB 7500
	0.8 [0.7]	Sweat		VCZ MA 7500
	1.2 [1.0]	NPT (Internal Thread)		VCZ NB 7600
	1.2 [1.0]	Sweat		VCZ MA 7600
	2 [1.7]	NPT (Internal Thread)		VCZ NB 7800
	2 [1.7]	Sweat		VCZ MA 7800
	2.7 [2.3]	NPT (Internal Thread)		VCZ NB 7400
	2.7 [2.3]	Sweat		VCZ MA 7400
	3.8 [3.3]	NPT (Internal Thread)		VCZ NB 7100
	3.8 [3.3]	Sweat		VCZ MA 7100
3/4 in.	4.2 [3.6]	NPT (Internal Thread)	Linear	VCZ MK 7400
	4.2 [3.6]	Sweat		VCZ ML 7400
	6.6 [5.7]	NPT (Internal Thread)		VCZ MK 7100
	6.6 [5.7]	Sweat		VCZ ML 7100
1 in.	7.4 [6.3]	NPT (Internal Thread)	Linear	VCZ MR 7100
	7.4 [6.3]	Sweat		VCZ MS 7100
1-1/4 in.	8.3 [7.1]	NPT (Internal Thread)	Linear	VCZ ND 7100
	8.3 [7.1]	Sweat		VCZ NE 7100



Honeywell's Cartridge Cage Valves feature a field replaceable cartridge for all working parts

VC6934ZZ11	VC7934ZZ11	VC4011ZZ11	VC4013ZZ11	VC8114ZZ11	VC8714ZZ11	VC6936ZZ11-530	VC7936ZZ11-529
24 Vac	24 Vac	120 / 240 Vac	240 Vac	24 Vac	24 Vac	24 Vac	24 Vac
50/60 Hz	50/60 Hz	50/60Hz	50/60Hz	60 Hz	60 Hz	50/60 Hz	50/60 Hz
	•						•
	•						•
•						•	•
•						•	•
		•	•	•	•		•
							•
60	60	60	60	60	60	60	60
					•		
120	120	6	6	6	6	90	90
•	•	•	•	•	•	•	•
•	•	•	•	•	•	•	•
•	•			•	•	•	•
•	•			•	•	•	•
•	•	•	•	•	•	•	•
Stay in Place	Stay in Place	Stay in Place	Stay in Place	Stay in Place	Stay in Place	Electronic NO/NC	Electronic NO/NC

Valve O.S. Number								Replacement Cartridge Floating/ Modulating	Replacement Cartridge 2-position Fail Safe
VCZ BB 3500	VCZ BB 3500					VC6936BB1500	VC7936BB1500	VCZZ 3500	VCZZ 1500
VCZ AA 3500	VCZ AA 3500					VC6936AA1500	VC7936AA1500	VCZZ 3500	VCZZ 1500
VCZ BB 3600	VCZ BB 3600					VC6936BB1600	VC7936BB1600	VCZZ 3600	VCZZ 1600
VCZ AA 3600	VCZ AA 3600					VC6936AA1600	VC7936AA1600	VCZZ 3600	VCZZ 1600
VCZ AA 3800	VCZ AA 3800					VC6936AA1800	VC7936AA1800	VCZZ 3800	VCZZ 1800
VCZ BB 3800	VCZ BB 3800					VC6936BB1800	VC7936BB1800	VCZZ 3800	VCZZ 1800
VCZ AA 3400	VCZ AA 3400					VC6936AA1400	VC7936AA1400	VCZZ 3400	VCZZ 1400
VCZ BB 3400	VCZ BB 3400					VC6936BB1400	VC7936BB1400	VCZZ 3400	VCZZ 1400
VCZ BB 3100	VCZ BB 3100	VCZ BB 1100	VCZ BB 1100	VCZ BB 1100	VCZ BB 1100	VC6936BB1100	VC7936BB1100	VCZZ 3100	VCZZ 1100
VCZ AA 3100	VCZ AA 3100	VCZ AA 1100	VCZ AA 1100	VCZ AA 1100	VCZ AA 1100	VC6936AA1100	VC7936AA1100	VCZZ 3100	VCZZ 1100
VCZ AL 3400	VCZ AL 3400					VC6936AL1400	VC7936AL1400	VCZZ 3400	VCZZ 1400
VCZ AM 3400	VCZ AM 3400					VC6936AM1400	VC7936AM1400	VCZZ 3400	VCZZ 1400
VCZ AL 3100	VCZ AL 3100	VCZ AL 1100	VCZ AL 1100	VCZ AL 1100	VCZ AL 1100	VC6936AL1100	VC7936AL1100	VCZZ 3100	VCZZ 1100
VCZ AM 3100	VCZ AM 3100	VCZ AM 1100	VCZ AM 1100	VCZ AM 1100	VCZ AM 1100	VC6936AM1100	VC7936AM1100	VCZZ 3100	VCZZ 1100
VCZ AR 3400	VCZ AR 3400					VC6936AR1400	VC7936AR1400	VCZZ 3400	VCZZ 1400
VCZ AS 3400	VCZ AS 3400					VC6936AS1400	VC7936AS1400	VCZZ 3400	VCZZ 1400
VCZ AR 3100	VCZ AR 3100	VCZ AR 1100	VCZ AR 1100	VCZ AR 1100	VCZ AR 1100	VC6936AR1100	VC7936AR1100	VCZZ 3100	VCZZ 1100
VCZ AS 3100	VCZ AS 3100	VCZ AS 1100	VCZ AS 1100	VCZ AS 1100	VCZ AS 1100	VC6936AS1100	VC7936AS1100	VCZZ 3100	VCZZ 1100
VCZ BD 3100	VCZ BD 3100	VCZ BD 1100	VCZ BD 1100	VCZ BD 1100	VCZ BD 1100	VC6936BD1100	VC7936BD1100	VCZZ 3100	VCZZ 1100
VCZ BE 3100	VCZ BE 3100	VCZ BE 1100	VCZ BE 1100	VCZ BE 1100	VCZ BE 1100	VC6936BE1100	VC7936BE1100	VCZZ 3100	VCZZ 1100
Valve O.S. Number									
VCZ NB 7500	VCZ NB 7500					VC6936NB6500	VC7936NB6500	VCZZ 7500	VCZZ 6500
VCZ MA 7500	VCZ MA 7500					VC6936MA6500	VC7936MA6500	VCZZ 7500	VCZZ 6500
VCZ NB 7600	VCZ NB 7600					VC6936NB6600	VC7936NB6600	VCZZ 7600	VCZZ 6600
VCZ MA 7600	VCZ MA 7600					VC6936MA6600	VC7936MA6600	VCZZ 7600	VCZZ 6600
VCZ NB 7800	VCZ NB 7800					VC6936NB6800	VC7936NB6800	VCZZ 7800	VCZZ 6800
VCZ MA 7800	VCZ MA 7800					VC6936MA6800	VC7936MA6800	VCZZ 7800	VCZZ 6800
VCZ NB 7400	VCZ NB 7400					VC6936NB6400	VC7936NB6400	VCZZ 7400	VCZZ 6400
VCZ MA 7400	VCZ MA 7400					VC6936MA6400	VC7936MA6400	VCZZ 7400	VCZZ 6400
VCZ NB 7100	VCZ NB 7100	VCZ NB 6100	VCZ NB 6100	VCZ NB 6100	VCZ NB 6100	VC6936NB6100	VC7936NB6100	VCZZ 7100	VCZZ 6100
VCZ MA 7100	VCZ MA 7100	VCZ MA 6100	VCZ MA 6100	VCZ MA 6100	VCZ MA 6100	VC6936MA6100	VC7936MA6100	VCZZ 7100	VCZZ 6100
VCZ MK 7400	VCZ MK 7400					VC6936MK6400	VC7936MK6400	VCZZ 7400	VCZZ 6400
VCZ ML 7400	VCZ ML 7400					VC6936ML6400	VC7936ML6400	VCZZ 7400	VCZZ 6400
VCZ MK 7100	VCZ MK 7100	VCZ MK 6100	VCZ MK 6100	VCZ MK 6100	VCZ MK 6100	VC6936MK6100	VC7936MK6100	VCZZ 7100	VCZZ 6100
VCZ ML 7100	VCZ ML 7100	VCZ ML 6100	VCZ ML 6100	VCZ ML 6100	VCZ ML 6100	VC6936ML6100	VC7936ML6100	VCZZ 7100	VCZZ 6100
VCZ MR 7100	VCZ MR 7100	VCZ MR 6100	VCZ MR 6100	VCZ MR 6100	VCZ MR 6100	VC6936MR6100	VC7936MR6100	VCZZ 7100	VCZZ 6100
VCZ MS 7100	VCZ MS 7100	VCZ MS 6100	VCZ MS 6100	VCZ MS 6100	VCZ MS 6100	VC6936MS6100	VC7936MS6100	VCZZ 7100	VCZZ 6100
VCZ ND 7100	VCZ ND 7100	VCZ ND 6100	VCZ ND 6100	VCZ ND 6100	VCZ ND 6100	VC6936ND6100	VC7936ND6100	VCZZ 7100	VCZZ 6100
VCZ NE 7100	VCZ NE 7100	VCZ NE 6100	VCZ NE 6100	VCZ NE 6100	VCZ NE 6100	VC6936NE6100	VC7936NE6100	VCZZ 7100	VCZZ 6100

Cartridge Globe Valves

For more than 50 years, Honeywell has manufactured the V58 series of premium Cartridge Globe Valves. The compact size and replacement capabilities make it a great choice for controlling modulating unitary equipment.

Valves 1" and larger, feature a pressure balanced design with enhanced close-off (levels).

Common Features

- Maximum static pressure 235 psi
- Long stroke allows for a very wide range of control
- Leakage rate: 0.02% of Cv
- Insert replacement tool allows for the valve cartridge to be replaced or changed without draining the system (½" and ¾" models only)
- Brass body and stainless steel stem
- Threaded plastic valve cover/manual handle allows for manual operation

Actuator O.S. Number		M6410A1029	M6435A1004
Power Supply		24 Vac	24 Vac
24 Vac		50/60 Hz	50/60 Hz
Stem Force		40.5 lb. [180 N]	40.5 lb. [180 N]
Control	2-Position SPDT	•	•
	Floating	•	•
	0(2)-10 Vdc		
	4-20 mA (500 Ohm resistor)		
Pneumatic Spring Range			
Fail Safe Action		Stay in Place	Stem up, 10 sec.
Reversible Operation		By wiring change	By wiring change
Stroke Timing (60 Hz)		125 seconds	50 Seconds
Manual Override (Use valve dust cap)		•	•
Position Indicator		•	•
Conduit Connection		•	•
Plenum Cable		•	•
Corrosion Resistant		•	•



2-Way



3-Way

Valve Size (inches)	Flow Capacity (Cv) / [kvs]	Pipe Connection Type	Flow Characteristic	Valve Closes	Valve O.S. Number		
1/2 in.	0.19 [0.16]	NPT (internal thread)	Equal%	Stem Down ²	V5862A2005	232	232
	0.19 [0.16]	Sweat			V5852A2007	232	232
	0.29 [0.25]	NPT (internal thread)			V5862A2013	232	232
	0.29 [0.25]	Sweat			V5852A2015	232	232
	0.47 [0.40]	NPT (internal thread)			V5862A2021	232	232
	0.47 [0.40]	Sweat			V5852A2023	232	232
	0.74 [0.63]	NPT (internal thread)			V5862A2039	232	232
	0.74 [0.63]	Sweat			V5852A2031	232	232
	1.2 [1.0]	NPT (internal thread)			V5862A2047	174	174
	1.2 [1.0]	Sweat			V5852A2049	174	174
	1.9 [1.6]	NPT (internal thread)			V5862A2054	174	174
	1.9 [1.6]	Sweat			V5852A2056	174	174
3/4 in.	2.9 [2.5]	NPT (internal thread)			V5862A2062	58	58
	2.9 [2.5]	Sweat			V5852A2064	58	58
	4.9 [4.2]	NPT (internal thread)			V5862A2070	58	58
	4.9 [4.2]	Sweat			V5852A2072	58	58
1 in.	5.5 [4.7]	NPT (internal thread)	Linear	Stem Up	V5862A3003		
	7.8 [6.7]				V5862A3011		
	11 [9.4]				V5862A3029		
1-1/4 in.	18 [15.4]				V5862A3037		
1-1/2 in.	25 [21.4]				V5862A3045		
Valve Size (inches)	Flow Capacity (Cv) ¹ / [kvs]	Pipe Connection Type	Flow Characteristic	Valve Closes	Valve O.S. Number		
1/2 in.	0.29 [0.25]	NPT (internal thread)	A-AB Equal%, B-AB Linear	Stem Up	V5863A2004	116	116
	0.29 [0.25]	Sweat			V5853A2006	116	116
	0.47 [0.40]	NPT (internal thread)			V5863A2012	116	116
	0.47 [0.40]	Sweat			V5853A2014	116	116
	0.74 [0.63]	NPT (internal thread)			V5863A2020	36	36
	0.74 [0.63]	Sweat			V5853A2022	36	36
	1.2 [1.0]	NPT (internal thread)			V5863A2038	36	36
	1.2 [1.0]	Sweat			V5853A2030	36	36
	1.9 [1.6]	NPT (internal thread)			V5863A2046	34	34
	1.9 [1.6]	Sweat			V5853A2048	34	34
3/4 in.	2.9 [2.5]	NPT (internal thread)		Stem Up	V5863A1006	34	34
	2.9 [2.5]	Sweat			V5853A1008	34	34
	4.9 [4.2]	NPT (internal thread)			V5863A1014	34	34
	4.9 [4.2]	Sweat			V5853A1016	34	34
	2.9 [2.5]	NPT (internal thread)			V5863A2053	7.25	7.25
	2.9 [2.5]	Sweat			V5853A2055	7.25	7.25
	4.9 [4.2]	NPT (internal thread)			V5863A2061	7.25	7.25
	4.9 [4.2]	Sweat			V5853A2063	7.25	7.25
1 in.	5.5 [4.7]	NPT (internal thread)	Linear		V5863A3002		
	7.8 [6.7]				V5863A3010		
	11 [9.4]				V5863A3028		
1-1/4 in.	18 [15.4]				V5863A3036		
1-1/2 in.	25 [21.4]				V5863A3044		

Notes:

Maximum coil-bypass pressure difference is 7 psi when used with electric actuators.

¹ B port Cv is 20% less

² Fail safe position for 1/2" and 3/4" 2-way is Normally Open with Mx435 and MP958 spring return actuators. All other valves fail safe closed.

³ Insert determines Cv for 1/2" and 3/4" bodies. Grouped inserts are interchangeable.



Electric						Pneumatic		
M6410A3017	M6435A3000	M7410F1000	M7435F1001	M7410F3006	M7435F3007	MP958A1009	MP958A1017	MP958A1025
24 Vac	24 Vac	24 Vac	24 Vac	24 Vac	24 Vac			
50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz			
67.5 lb [300 N]	90 lb [400 N]	40.5 lb. [180 N]	40.5 lb. [180 N]	67.5 lb [300 N]	90 lb [400 N]			
•	•							
•	•							
		•	•	•	•			
		•	•	•	•			
						2-5 psi	3-10 psi	8-11 psi
Stay in Place	Stem up, 10 sec.	Stay in Place	Stem up, 10 sec.	Stay in Place	Stem up, 10 sec.			
By wiring change	By wiring change	By DIP switch	By DIP switch	By DIP switch	By DIP switch			
125 seconds	50 Seconds	125 seconds	50 Seconds	125 seconds	50 Seconds			
•	•	•	•	•	•	•	•	•
•	•	•	•	•	•			
•	•	•	•	•	•			
•	•	•	•	•	•			
•	•	•	•	•	•	•	•	•
2-way Valves Close-off								
		232	232			232	232	232
		232	232			232	232	232
		232	232			232	232	232
		232	232			232	232	232
		232	232			232	232	232
		232	232			232	232	232
		232	232			232	232	232
		174	174			174	174	174
		174	174			174	174	174
		174	174			174	174	174
		174	174			174	174	174
		58	58			58	58	58
		58	58			58	58	58
		58	58			58	58	58
		58	58			58	58	58
232	232			232	232			
232	232			232	232			
232	232			232	232			
174	174			174	174			
145	145			145	145			
3-way Valves Close-off								
		116	116			116	116	116
		116	116			116	116	116
		116	116			116	116	116
		116	116			116	116	116
		36	36			36	36	36
		36	36			36	36	36
		36	36			36	36	36
		36	36			36	36	36
		34	34			34	34	34
		34	34			34	34	34
		34	34					
		34	34					
		34	34					
		7.25	7.25			7.25	7.25	7.25
		7.25	7.25			7.25	7.25	7.25
		7.25	7.25			7.25	7.25	7.25
		7.25	7.25			7.25	7.25	7.25
232	232			232	232			
232	232			232	232			
232	232			232	232			
174	174			174	174			
145	145			145	145			

Control Ball Valves 1/2"-3"

2-Way NPT NEMA 2

Honeywell's Control Ball Valve product lines (VBN and VBF) feature the largest Cv range in the industry. A patented seat design allows for lower torque actuators, while a single spring return actuator may be used for up to a 70 psid differential pressure close-off on up to a 6" connection size.

The VBN family, features a unique field replaceable stem assembly.

Common Features

- Max static pressure 360 psi (250°F)
- Medium: Water/glycol solutions up to 50%.
- Temperature range: -22 to +250°F
- Field configurable open or closed fail-safe position
- ANSI class IV leakage (0.01% of CV)

VBN2 (Two-way):

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



2-Way

Actuator Features		Non-fail	
Actuator O.S. Number	MN6105A1011	MN6105A1011	
Power Supply	24 Vac	24 Vac	
Cycle Rate	50 / 60 Hz	50 / 60 Hz	
Actuator Torque (lb.-in.)	44	44	
Control (0)2-10 Vdc			
4-20 mA (500 Ohm Resistor)			
Floating	•	•	
Two-Position SPDT	•	•	
Two-Position SPST			
Fail Safe Action (field configurable)*	Stay in Place	Stay in Place	
Normal Position (no signal) (field configurable)	Closed	Closed	
Actuator Stroke (degrees)	95° ± 3°	95° ± 3°	
Timing (seconds)	90	90	
Feedback 2-10 Vdc Built In	-	-	

Valve Features				
Valve Size (inches)	Cv	Close-off Differential Pressure (psi)	Nickel-plated Brass Trim	Stainless Steel Trim
1/2 in.	0.38	130	VBN2AB3P0A	VBN2AB3S0A
	0.68		VBN2AD3P0A	VBN2AD3S0A
	1.3		VBN2AE3P0A	VBN2AE3S0A
	2		VBN2AF3P0A	VBN2AF3S0A
	2.6		VBN2AG3P0A	VBN2AG3S0A
	4.7		VBN2AH3P0A	VBN2AH3S0A
	8		VBN2AJ3P0A	VBN2AJ3S0A
	11.7		VBN2AK3P0A	VBN2AK3S0A
3/4 in.	0.31	130	VBN2BB3P0A	VBN2BB3S0A
	0.63		VBN2BD3P0A	VBN2BD3S0A
	1.2		VBN2BE3P0A	VBN2BE3S0A
	2.5		VBN2BG3P0A	VBN2BG3S0A
	4.3		VBN2BH3P0A	VBN2BH3S0A
	7.4		VBN2BJ3P0A	VBN2BJ3S0A
	10.1		VBN2BK3P0A	VBN2BK3S0A
	14.7		VBN2BL3P0A	VBN2BL3S0A
1 in.	29	130	VBN2BM3P0A	VBN2BM3S0A
	4.4		VBN2CH3P0A	VBN2CH3S0A
	9		VBN2CJ3P0A	VBN2CJ3S0A
	15.3		VBN2CL3P0A	VBN2CL3S0A
	26		VBN2CM3P0A	VBN2CM3S0A
	44		VBN2CN3P0A	VBN2CN3S0A
	54		VBN2CP3P0A	VBN2CP3S0A
	4.4		VBN2DH3P0A	VBN2DH3S0A
1-1/4 in.	8.3	100	VBN2DJ3P0A	VBN2DJ3S0A
	14.9		VBN2DK3P0A	VBN2DK3S0A
	25		VBN2DL3P0A	VBN2DL3S0A
	37		VBN2DM3P0A	VBN2DM3S0A
	41		VBN2DN3P0A	VBN2DN3S0A
	102		VBN2DS3P0A	VBN2DS3S0A
	23		VBN2EL3P0A	VBN2EL3S0A
	30		VBN2EM3P0A	VBN2EM3S0A
1-1/2 in.	41	100	VBN2EN3P0A	VBN2EN3S0A
	74		VBN2ER3P0A	VBN2ER3S0A
	172		VBN2E13P0A	VBN2E13S0A
	42		VBN2FN3P0A	VBN2FN3S0A
	57		VBN2FP3P0A	VBN2FP3S0A
	71		VBN2FR3P0A	VBN2FR3S0A
	100		VBN2FS3P0A	VBN2FS3S0A
	108		VBN2FT3P0A	VBN2FT3S0A
2 in.	210	100	VBN2F13P0A	VBN2F13S0A
	266		VBN2F23P0A	VBN2F23S0A
	45		VBN2GN3P0A	VBN2GN3S0A
	55		VBN2GP3P0A	VBN2GP3S0A
	72		VBN2GR3P0A	VBN2GR3S0A
	101		VBN2GS3P0A	VBN2GS3S0A
	162		VBN2GU3P0A	VBN2GU3S0A
	202		VBN2G13P0A	VBN2G13S0A
2-1/2 in.	49	100	VBN2HN3P0A	VBN2HN3S0A
	63		VBN2HP3P0A	VBN2HP3S0A
	82		VBN2HR3P0A	VBN2HR3S0A
	124		VBN2HT3P0A	VBN2HT3S0A
	145		VBN2HU3P0A	VBN2HU3S0A
3 in.	49	100	VBN2HN3P0A	VBN2HN3S0A
	63		VBN2HP3P0A	VBN2HP3S0A
	82		VBN2HR3P0A	VBN2HR3S0A
	124		VBN2HT3P0A	VBN2HT3S0A
	145		VBN2HU3P0A	VBN2HU3S0A

* Fail Safe Only

Safe		Fail Safe					
MN7505A2001	MN7505A2001	MS8105A1008	MS8105A1008	MS7505A2008	MS7505A2008	Valve Only	Valve Only
24 Vac	24 Vac	24 Vac	24 Vac	24 Vac	24 Vac		
50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz		
44	44	44	44	44	44		
•	•			•	•		
•	•			•	•		
•	•			•	•		
•	•			•	•		
		•	•				
Stay in Place	Stay in Place	Closed*	Closed*	Closed*	Closed*		
Closed	Closed	Closed	Closed	Closed	Closed		
95° ± 3°	95° ± 3°	95° ± 3°	95° ± 3°	95° ± 3°	95° ± 3°		
90	90	45	45	90	90		
•	•	-	-	•	•		
Valve O.S. Number							
Nickel-plated Brass Trim	Stainless Steel Trim	Nickel-plated Brass Trim	Stainless Steel Trim	Nickel-plated Brass Trim	Stainless Steel Trim	Nickel-plated Brass Trim	Stainless Steel Trim
VBN2AB3P0B	VBN2AB3S0B	VBN2AB3P0C	VBN2AB3S0C	VBN2AB3P0D	VBN2AB3S0D	VBN2AB3P0X	VBN2AB3S0X
VBN2AD3P0B	VBN2AD3S0B	VBN2AD3P0C	VBN2AD3S0C	VBN2AD3P0D	VBN2AD3S0D	VBN2AD3P0X	VBN2AD3S0X
VBN2AE3P0B	VBN2AE3S0B	VBN2AE3P0C	VBN2AE3S0C	VBN2AE3P0D	VBN2AE3S0D	VBN2AE3P0X	VBN2AE3S0X
VBN2AF3P0B	VBN2AF3S0B	VBN2AF3P0C	VBN2AF3S0C	VBN2AF3P0D	VBN2AF3S0D	VBN2AF3P0X	VBN2AF3S0X
VBN2AG3P0B	VBN2AG3S0B	VBN2AG3P0C	VBN2AG3S0C	VBN2AG3P0D	VBN2AG3S0D	VBN2AG3P0X	VBN2AG3S0X
VBN2AH3P0B	VBN2AH3S0B	VBN2AH3P0C	VBN2AH3S0C	VBN2AH3P0D	VBN2AH3S0D	VBN2AH3P0X	VBN2AH3S0X
VBN2AJ3P0B	VBN2AJ3S0B	VBN2AJ3P0C	VBN2AJ3S0C	VBN2AJ3P0D	VBN2AJ3S0D	VBN2AJ3P0X	VBN2AJ3S0X
VBN2AK3P0B	VBN2AK3S0B	VBN2AK3P0C	VBN2AK3S0C	VBN2AK3P0D	VBN2AK3S0D	VBN2AK3P0X	VBN2AK3S0X
VBN2BB3P0B	VBN2BB3S0B	VBN2BB3P0C	VBN2BB3S0C	VBN2BB3P0D	VBN2BB3S0D	VBN2BB3P0X	VBN2BB3S0X
VBN2BD3P0B	VBN2BD3S0B	VBN2BD3P0C	VBN2BD3S0C	VBN2BD3P0D	VBN2BD3S0D	VBN2BD3P0X	VBN2BD3S0X
VBN2BE3P0B	VBN2BE3S0B	VBN2BE3P0C	VBN2BE3S0C	VBN2BE3P0D	VBN2BE3S0D	VBN2BE3P0X	VBN2BE3S0X
VBN2BG3P0B	VBN2BG3S0B	VBN2BG3P0C	VBN2BG3S0C	VBN2BG3P0D	VBN2BG3S0D	VBN2BG3P0X	VBN2BG3S0X
VBN2BH3P0B	VBN2BH3S0B	VBN2BH3P0C	VBN2BH3S0C	VBN2BH3P0D	VBN2BH3S0D	VBN2BH3P0X	VBN2BH3S0X
VBN2BJ3P0B	VBN2BJ3S0B	VBN2BJ3P0C	VBN2BJ3S0C	VBN2BJ3P0D	VBN2BJ3S0D	VBN2BJ3P0X	VBN2BJ3S0X
VBN2BK3P0B	VBN2BK3S0B	VBN2BK3P0C	VBN2BK3S0C	VBN2BK3P0D	VBN2BK3S0D	VBN2BK3P0X	VBN2BK3S0X
VBN2BL3P0B	VBN2BL3S0B	VBN2BL3P0C	VBN2BL3S0C	VBN2BL3P0D	VBN2BL3S0D	VBN2BL3P0X	VBN2BL3S0X
VBN2BM3P0B	VBN2BM3S0B	VBN2BM3P0C	VBN2BM3S0C	VBN2BM3P0D	VBN2BM3S0D	VBN2BM3P0X	VBN2BM3S0X
VBN2CH3P0B	VBN2CH3S0B	VBN2CH3P0C	VBN2CH3S0C	VBN2CH3P0D	VBN2CH3S0D	VBN2CH3P0X	VBN2CH3S0X
VBN2CJ3P0B	VBN2CJ3S0B	VBN2CJ3P0C	VBN2CJ3S0C	VBN2CJ3P0D	VBN2CJ3S0D	VBN2CJ3P0X	VBN2CJ3S0X
VBN2CL3P0B	VBN2CL3S0B	VBN2CL3P0C	VBN2CL3S0C	VBN2CL3P0D	VBN2CL3S0D	VBN2CL3P0X	VBN2CL3S0X
VBN2CM3P0B	VBN2CM3S0B	VBN2CM3P0C	VBN2CM3S0C	VBN2CM3P0D	VBN2CM3S0D	VBN2CM3P0X	VBN2CM3S0X
VBN2CN3P0B	VBN2CN3S0B	VBN2CN3P0C	VBN2CN3S0C	VBN2CN3P0D	VBN2CN3S0D	VBN2CN3P0X	VBN2CN3S0X
VBN2CP3P0B	VBN2CP3S0B	VBN2CP3P0C	VBN2CP3S0C	VBN2CP3P0D	VBN2CP3S0D	VBN2CP3P0X	VBN2CP3S0X
VBN2DH3P0B	VBN2DH3S0B	VBN2DH3P0C	VBN2DH3S0C	VBN2DH3P0D	VBN2DH3S0D	VBN2DH3P0X	VBN2DH3S0X
VBN2DJ3P0B	VBN2DJ3S0B	VBN2DJ3P0C	VBN2DJ3S0C	VBN2DJ3P0D	VBN2DJ3S0D	VBN2DJ3P0X	VBN2DJ3S0X
VBN2DK3P0B	VBN2DK3S0B	VBN2DK3P0C	VBN2DK3S0C	VBN2DK3P0D	VBN2DK3S0D	VBN2DK3P0X	VBN2DK3S0X
VBN2DL3P0B	VBN2DL3S0B	VBN2DL3P0C	VBN2DL3S0C	VBN2DL3P0D	VBN2DL3S0D	VBN2DL3P0X	VBN2DL3S0X
VBN2DM3P0B	VBN2DM3S0B	VBN2DM3P0C	VBN2DM3S0C	VBN2DM3P0D	VBN2DM3S0D	VBN2DM3P0X	VBN2DM3S0X
VBN2DN3P0B	VBN2DN3S0B	VBN2DN3P0C	VBN2DN3S0C	VBN2DN3P0D	VBN2DN3S0D	VBN2DN3P0X	VBN2DN3S0X
VBN2DS3P0B	VBN2DS3S0B	VBN2DS3P0C	VBN2DS3S0C	VBN2DS3P0D	VBN2DS3S0D	VBN2DS3P0X	VBN2DS3S0X
VBN2EL3P0B	VBN2EL3S0B	VBN2EL3P0C	VBN2EL3S0C	VBN2EL3P0D	VBN2EL3S0D	VBN2EL3P0X	VBN2EL3S0X
VBN2EM3P0B	VBN2EM3S0B	VBN2EM3P0C	VBN2EM3S0C	VBN2EM3P0D	VBN2EM3S0D	VBN2EM3P0X	VBN2EM3S0X
VBN2EN3P0B	VBN2EN3S0B	VBN2EN3P0C	VBN2EN3S0C	VBN2EN3P0D	VBN2EN3S0D	VBN2EN3P0X	VBN2EN3S0X
VBN2ER3P0B	VBN2ER3S0B	VBN2ER3P0C	VBN2ER3S0C	VBN2ER3P0D	VBN2ER3S0D	VBN2ER3P0X	VBN2ER3S0X
VBN2E13P0B	VBN2E13S0B	VBN2E13P0C	VBN2E13S0C	VBN2E13P0D	VBN2E13S0D	VBN2E13P0X	VBN2E13S0X
VBN2FN3P0B	VBN2FN3S0B	VBN2FN3P0C	VBN2FN3S0C	VBN2FN3P0D	VBN2FN3S0D	VBN2FN3P0X	VBN2FN3S0X
VBN2FP3P0B	VBN2FP3S0B	VBN2FP3P0C	VBN2FP3S0C	VBN2FP3P0D	VBN2FP3S0D	VBN2FP3P0X	VBN2FP3S0X
VBN2FR3P0B	VBN2FR3S0B	VBN2FR3P0C	VBN2FR3S0C	VBN2FR3P0D	VBN2FR3S0D	VBN2FR3P0X	VBN2FR3S0X
VBN2FS3P0B	VBN2FS3S0B	VBN2FS3P0C	VBN2FS3S0C	VBN2FS3P0D	VBN2FS3S0D	VBN2FS3P0X	VBN2FS3S0X
VBN2FT3P0B	VBN2FT3S0B	VBN2FT3P0C	VBN2FT3S0C	VBN2FT3P0D	VBN2FT3S0D	VBN2FT3P0X	VBN2FT3S0X
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VBN2F23P0B	VBN2F23S0B	VBN2F23P0C	VBN2F23S0C	VBN2F23P0D	VBN2F23S0D	VBN2F23P0X	VBN2F23S0X
VBN2GN3P0B	VBN2GN3S0B	VBN2GN3P0C	VBN2GN3S0C	VBN2GN3P0D	VBN2GN3S0D	VBN2GN3P0X	VBN2GN3S0X
VBN2GP3P0B	VBN2GP3S0B	VBN2GP3P0C	VBN2GP3S0C	VBN2GP3P0D	VBN2GP3S0D	VBN2GP3P0X	VBN2GP3S0X
VBN2GR3P0B	VBN2GR3S0B	VBN2GR3P0C	VBN2GR3S0C	VBN2GR3P0D	VBN2GR3S0D	VBN2GR3P0X	VBN2GR3S0X
VBN2GS3P0B	VBN2GS3S0B	VBN2GS3P0C	VBN2GS3S0C	VBN2GS3P0D	VBN2GS3S0D	VBN2GS3P0X	VBN2GS3S0X
VBN2GU3P0B	VBN2GU3S0B	VBN2GU3P0C	VBN2GU3S0C	VBN2GU3P0D	VBN2GU3S0D	VBN2GU3P0X	VBN2GU3S0X
VBN2G13P0B	VBN2G13S0B	VBN2G13P0C	VBN2G13S0C	VBN2G13P0D	VBN2G13S0D	VBN2G13P0X	VBN2G13S0X
VBN2HN3P0B	VBN2HN3S0B	VBN2HN3P0C	VBN2HN3S0C	VBN2HN3P0D	VBN2HN3S0D	VBN2HN3P0X	VBN2HN3S0X
VBN2HP3P0B	VBN2HP3S0B	VBN2HP3P0C	VBN2HP3S0C	VBN2HP3P0D	VBN2HP3S0D	VBN2HP3P0X	VBN2HP3S0X
VBN2HR3P0B	VBN2HR3S0B	VBN2HR3P0C	VBN2HR3S0C	VBN2HR3P0D	VBN2HR3S0D	VBN2HR3P0X	VBN2HR3S0X
VBN2HT3P0B	VBN2HT3S0B	VBN2HT3P0C	VBN2HT3S0C	VBN2HT3P0D	VBN2HT3S0D	VBN2HT3P0X	VBN2HT3S0X
VBN2HU3P0B	VBN2HU3S0B	VBN2HU3P0C	VBN2HU3S0C	VBN2HU3P0D	VBN2HU3S0D	VBN2HU3P0X	VBN2HU3S0X

Control Ball Valves 1/2" - 3"

2-Way NPT NEMA 3R

Common Features

- Max static pressure 360 psi (250°F)
- Medium: Water/glycol solutions up to 50%.
- Temperature range: -22 to +250°F
- Field configurable open or closed fail-safe position
- Removable handle for manual operation
- ANSI class IV leakage (0.01% of CV)

VBN2 (Two-way):

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

Optional NEMA 3R enclosure



2-Way

Actuator Features		Non-fail	
Actuator O.S. Number		MN6105A1011	MN6105A1011
Power Supply		24 Vac	24 Vac
Cycle Rate		50 / 60 Hz	50 / 60 Hz
Actuator Torque	(lb.-in.)	44	44
Control	(0)2-10 Vdc 4-20 mA (500 Ohm Resistor)		
	Floating	•	•
	Two-Position SPDT	•	•
	Two-Position SPST		
Fail Safe Action	(field configurable)*	Stay in Place	Stay in Place
Normal Position (no signal)	(field configurable)	Closed	Closed
Actuator Stroke	(degrees)	95° ± 3°	95° ± 3°
Timing	(seconds)	90	90
Feedback	2-10 Vdc Built In		

Valve Features				
Valve Size (inches)	Cv	Close-off Differential Pressure (psi)	Nickel-plated Brass Trim	Stainless Steel Trim
1/2 in.	0.38	130	VBN2AB3P0A	VBN2AB3S0A
	0.68		VBN2AD3P0A	VBN2AD3S0A
	1.3		VBN2AE3P0A	VBN2AE3S0A
	2		VBN2AF3P0A	VBN2AF3S0A
	2.6		VBN2AG3P0A	VBN2AG3S0A
	4.7		VBN2AH3P0A	VBN2AH3S0A
	8		VBN2AJ3P0A	VBN2AJ3S0A
3/4 in.	11.7		VBN2AK3P0A	VBN2AK3S0A
	0.31		VBN2BB3P0A	VBN2BB3S0A
	0.63		VBN2BD3P0A	VBN2BD3S0A
	1.2		VBN2BE3P0A	VBN2BE3S0A
	2.5		VBN2BG3P0A	VBN2BG3S0A
	4.3		VBN2BH3P0A	VBN2BH3S0A
	7.4		VBN2BJ3P0A	VBN2BJ3S0A
1 in.	10.1		VBN2BK3P0A	VBN2BK3S0A
	14.7		VBN2BL3P0A	VBN2BL3S0A
	29		VBN2BM3P0A	VBN2BM3S0A
	4.4		VBN2CH3P0A	VBN2CH3S0A
	9		VBN2CJ3P0A	VBN2CJ3S0A
	15.3		VBN2CL3P0A	VBN2CL3S0A
	26		VBN2CM3P0A	VBN2CM3S0A
1-1/4 in.	44		VBN2CN3P0A	VBN2CN3S0A
	54		VBN2CP3P0A	VBN2CP3S0A
	4.4		VBN2DH3P0A	VBN2DH3S0A
	8.3		VBN2DJ3P0A	VBN2DJ3S0A
	14.9		VBN2DK3P0A	VBN2DK3S0A
	25		VBN2DL3P0A	VBN2DL3S0A
	37		VBN2DM3P0A	VBN2DM3S0A
1-1/2 in.	41		VBN2DN3P0A	VBN2DN3S0A
	102		VBN2DS3P0A	VBN2DS3S0A
	23		VBN2EL3P0A	VBN2EL3S0A
	30		VBN2EM3P0A	VBN2EM3S0A
	41		VBN2EN3P0A	VBN2EN3S0A
	74		VBN2ER3P0A	VBN2ER3S0A
	172		VBN2E13P0A	VBN2E13S0A
2 in.	42		VBN2FN3P0A	VBN2FN3S0A
	57		VBN2FP3P0A	VBN2FP3S0A
	71		VBN2FR3P0A	VBN2FR3S0A
	100		VBN2FS3P0A	VBN2FS3S0A
	108		VBN2FT3P0A	VBN2FT3S0A
	210		VBN2F13P0A	VBN2F13S0A
	266		VBN2F23P0A	VBN2F23S0A
2-1/2 in.	45		VBN2GN3P0A	VBN2GN3S0A
	55		VBN2GP3P0A	VBN2GP3S0A
	72		VBN2GR3P0A	VBN2GR3S0A
	101		VBN2GS3P0A	VBN2GS3S0A
	162		VBN2GU3P0A	VBN2GU3S0A
	202		VBN2G13P0A	VBN2G13S0A
	49		VBN2HN3P0A	VBN2HN3S0A
3 in.	63		VBN2HP3P0A	VBN2HP3S0A
	82		VBN2HR3P0A	VBN2HR3S0A
	124		VBN2HT3P0A	VBN2HT3S0A
	145		VBN2HU3P0A	VBN2HU3S0A

* Fail Safe Only

Safe		Fail Safe					
MN7505A2001	MN7505A2001	MS8105A1008	MS8105A1008	MS7505A2008	MS7505A2008	Valve Only	Valve Only
24 Vac	24 Vac	24 Vac	24 Vac	24 Vac	24 Vac		
50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz		
44	44	44	44	44	44		
•	•			•	•		
•	•			•	•		
•	•			•	•		
•	•			•	•		
		•	•				
Stay in Place	Stay in Place	Closed*	Closed*	Closed*	Closed*		
Closed	Closed	Closed	Closed	Closed	Closed		
95° ± 3°	95° ± 3°	95° ± 3°	95° ± 3°	95° ± 3°	95° ± 3°		
90	90	45	45	90	90		
•	•			•	•		
Valve O.S. Number							
Nickel-plated Brass Trim	Stainless Steel Trim	Nickel-plated Brass Trim	Stainless Steel Trim	Nickel-plated Brass Trim	Stainless Steel Trim	Nickel-plated Brass Trim	Stainless Steel Trim
VBN2AB3P0B	VBN2AB3S0B	VBN2AB3P0C	VBN2AB3S0C	VBN2AB3P0D	VBN2AB3S0D	VBN2AB3P0X	VBN2AB3S0X
VBN2AD3P0B	VBN2AD3S0B	VBN2AD3P0C	VBN2AD3S0C	VBN2AD3P0D	VBN2AD3S0D	VBN2AD3P0X	VBN2AD3S0X
VBN2AE3P0B	VBN2AE3S0B	VBN2AE3P0C	VBN2AE3S0C	VBN2AE3P0D	VBN2AE3S0D	VBN2AE3P0X	VBN2AE3S0X
VBN2AF3P0B	VBN2AF3S0B	VBN2AF3P0C	VBN2AF3S0C	VBN2AF3P0D	VBN2AF3S0D	VBN2AF3P0X	VBN2AF3S0X
VBN2AG3P0B	VBN2AG3S0B	VBN2AG3P0C	VBN2AG3S0C	VBN2AG3P0D	VBN2AG3S0D	VBN2AG3P0X	VBN2AG3S0X
VBN2AH3P0B	VBN2AH3S0B	VBN2AH3P0C	VBN2AH3S0C	VBN2AH3P0D	VBN2AH3S0D	VBN2AH3P0X	VBN2AH3S0X
VBN2AJ3P0B	VBN2AJ3S0B	VBN2AJ3P0C	VBN2AJ3S0C	VBN2AJ3P0D	VBN2AJ3S0D	VBN2AJ3P0X	VBN2AJ3S0X
VBN2AK3P0B	VBN2AK3S0B	VBN2AK3P0C	VBN2AK3S0C	VBN2AK3P0D	VBN2AK3S0D	VBN2AK3P0X	VBN2AK3S0X
VBN2BB3P0B	VBN2BB3S0B	VBN2BB3P0C	VBN2BB3S0C	VBN2BB3P0D	VBN2BB3S0D	VBN2BB3P0X	VBN2BB3S0X
VBN2BD3P0B	VBN2BD3S0B	VBN2BD3P0C	VBN2BD3S0C	VBN2BD3P0D	VBN2BD3S0D	VBN2BD3P0X	VBN2BD3S0X
VBN2BE3P0B	VBN2BE3S0B	VBN2BE3P0C	VBN2BE3S0C	VBN2BE3P0D	VBN2BE3S0D	VBN2BE3P0X	VBN2BE3S0X
VBN2BG3P0B	VBN2BG3S0B	VBN2BG3P0C	VBN2BG3S0C	VBN2BG3P0D	VBN2BG3S0D	VBN2BG3P0X	VBN2BG3S0X
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VBN2BJ3P0B	VBN2BJ3S0B	VBN2BJ3P0C	VBN2BJ3S0C	VBN2BJ3P0D	VBN2BJ3S0D	VBN2BJ3P0X	VBN2BJ3S0X
VBN2BK3P0B	VBN2BK3S0B	VBN2BK3P0C	VBN2BK3S0C	VBN2BK3P0D	VBN2BK3S0D	VBN2BK3P0X	VBN2BK3S0X
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VBN2BM3P0B	VBN2BM3S0B	VBN2BM3P0C	VBN2BM3S0C	VBN2BM3P0D	VBN2BM3S0D	VBN2BM3P0X	VBN2BM3S0X
VBN2CH3P0B	VBN2CH3S0B	VBN2CH3P0C	VBN2CH3S0C	VBN2CH3P0D	VBN2CH3S0D	VBN2CH3P0X	VBN2CH3S0X
VBN2CJ3P0B	VBN2CJ3S0B	VBN2CJ3P0C	VBN2CJ3S0C	VBN2CJ3P0D	VBN2CJ3S0D	VBN2CJ3P0X	VBN2CJ3S0X
VBN2CL3P0B	VBN2CL3S0B	VBN2CL3P0C	VBN2CL3S0C	VBN2CL3P0D	VBN2CL3S0D	VBN2CL3P0X	VBN2CL3S0X
VBN2CM3P0B	VBN2CM3S0B	VBN2CM3P0C	VBN2CM3S0C	VBN2CM3P0D	VBN2CM3S0D	VBN2CM3P0X	VBN2CM3S0X
VBN2CN3P0B	VBN2CN3S0B	VBN2CN3P0C	VBN2CN3S0C	VBN2CN3P0D	VBN2CN3S0D	VBN2CN3P0X	VBN2CN3S0X
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VBN2DH3P0B	VBN2DH3S0B	VBN2DH3P0C	VBN2DH3S0C	VBN2DH3P0D	VBN2DH3S0D	VBN2DH3P0X	VBN2DH3S0X
VBN2DJ3P0B	VBN2DJ3S0B	VBN2DJ3P0C	VBN2DJ3S0C	VBN2DJ3P0D	VBN2DJ3S0D	VBN2DJ3P0X	VBN2DJ3S0X
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VBN2DL3P0B	VBN2DL3S0B	VBN2DL3P0C	VBN2DL3S0C	VBN2DL3P0D	VBN2DL3S0D	VBN2DL3P0X	VBN2DL3S0X
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VBN2DN3P0B	VBN2DN3S0B	VBN2DN3P0C	VBN2DN3S0C	VBN2DN3P0D	VBN2DN3S0D	VBN2DN3P0X	VBN2DN3S0X
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VBN2F23P0B	VBN2F23S0B	VBN2F23P0C	VBN2F23S0C	VBN2F23P0D	VBN2F23S0D	VBN2F23P0X	VBN2F23S0X
VBN2GN3P0B	VBN2GN3S0B	VBN2GN3P0C	VBN2GN3S0C	VBN2GN3P0D	VBN2GN3S0D	VBN2GN3P0X	VBN2GN3S0X
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VBN2GS3P0B	VBN2GS3S0B	VBN2GS3P0C	VBN2GS3S0C	VBN2GS3P0D	VBN2GS3S0D	VBN2GS3P0X	VBN2GS3S0X
VBN2GU3P0B	VBN2GU3S0B	VBN2GU3P0C	VBN2GU3S0C	VBN2GU3P0D	VBN2GU3S0D	VBN2GU3P0X	VBN2GU3S0X
VBN2G13P0B	VBN2G13S0B	VBN2G13P0C	VBN2G13S0C	VBN2G13P0D	VBN2G13S0D	VBN2G13P0X	VBN2G13S0X
VBN2HN3P0B	VBN2HN3S0B	VBN2HN3P0C	VBN2HN3S0C	VBN2HN3P0D	VBN2HN3S0D	VBN2HN3P0X	VBN2HN3S0X
VBN2HP3P0B	VBN2HP3S0B	VBN2HP3P0C	VBN2HP3S0C	VBN2HP3P0D	VBN2HP3S0D	VBN2HP3P0X	VBN2HP3S0X
VBN2HR3P0B	VBN2HR3S0B	VBN2HR3P0C	VBN2HR3S0C	VBN2HR3P0D	VBN2HR3S0D	VBN2HR3P0X	VBN2HR3S0X
VBN2HT3P0B	VBN2HT3S0B	VBN2HT3P0C	VBN2HT3S0C	VBN2HT3P0D	VBN2HT3S0D	VBN2HT3P0X	VBN2HT3S0X
VBN2HU3P0B	VBN2HU3S0B	VBN2HU3P0C	VBN2HU3S0C	VBN2HU3P0D	VBN2HU3S0D	VBN2HU3P0X	VBN2HU3S0X

Control Ball Valves 1/2"-2 1/2"

3-Way NPT NEMA 2

VBN3 (Three-way):

- Equal % A to AB, linear B to AB
- Nickel-chrome plated brass ball and stem
- Convert to 2-way by plugging B port (plug not provided)
- Mixing or diverting control with the same valve

Actuator Features	Non-fail Safe		Fail Safe		Valve Only
Actuator O.S. Number	MN6105A1011	MN7505A2001	MS8105A1008	MS7505A2008	
Power Supply	24 Vac	24 Vac	24 Vac	24 Vac	
Cycle Rate	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	
Actuator Torque (lb.-in.)	44	44	44	44	
Control (0)2-10 Vdc		•		•	
4-20 mA (*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	A-AB Closed	A-AB Closed	
Actuator Stroke (degrees)	95° ± 3°	95° ± 3°	95° ± 3°	95° ± 3°	
Timing (seconds)	90	90	45	90	
Feedback 2-10 Vdc Built In		•		•	

Valve Features			Valve O.S. Number				
Valve Size (inches)	Cv	Close-off Differential Pressure (psi)	Nickel-plated Brass Trim				
1/2 in.	0.33	50	VBN3AB3P0A	VBN3AB3P0B	VBN3AB3P0C	VBN3AB3P0D	VBN3AB3P0X
	0.59		VBN3AC3P0A	VBN3AC3P0B	VBN3AC3P0C	VBN3AC3P0D	VBN3AC3P0X
	1		VBN3AE3P0A	VBN3AE3P0B	VBN3AE3P0C	VBN3AE3P0D	VBN3AE3P0X
	2.4		VBN3AF3P0A	VBN3AF3P0B	VBN3AF3P0C	VBN3AF3P0D	VBN3AF3P0X
	4.3		VBN3AH3P0A	VBN3AH3P0B	VBN3AH3P0C	VBN3AH3P0D	VBN3AH3P0X
	8		VBN3AJ3P0A	VBN3AJ3P0B	VBN3AJ3P0C	VBN3AJ3P0D	VBN3AJ3P0X
3/4 in.	0.4		VBN3BC3P0A	VBN3BC3P0B	VBN3BC3P0C	VBN3BC3P0D	VBN3BC3P0X
	0.66		VBN3BD3P0A	VBN3BD3P0B	VBN3BD3P0C	VBN3BD3P0D	VBN3BD3P0X
	1.3		VBN3BE3P0A	VBN3BE3P0B	VBN3BE3P0C	VBN3BE3P0D	VBN3BE3P0X
	2.4		VBN3BF3P0A	VBN3BF3P0B	VBN3BF3P0C	VBN3BF3P0D	VBN3BF3P0X
	3.8		VBN3BG3P0A	VBN3BG3P0B	VBN3BG3P0C	VBN3BG3P0D	VBN3BG3P0X
	7		VBN3BJ3P0A	VBN3BJ3P0B	VBN3BJ3P0C	VBN3BJ3P0D	VBN3BJ3P0X
1 in.	11		VBN3BK3P0A	VBN3BK3P0B	VBN3BK3P0C	VBN3BK3P0D	VBN3BK3P0X
	0.4		VBN3CC3P0A	VBN3CC3P0B	VBN3CC3P0C	VBN3CC3P0D	VBN3CC3P0X
	0.65		VBN3CD3P0A	VBN3CD3P0B	VBN3CD3P0C	VBN3CD3P0D	VBN3CD3P0X
	1.3		VBN3CE3P0A	VBN3CE3P0B	VBN3CE3P0C	VBN3CE3P0D	VBN3CE3P0X
	2.3		VBN3CF3P0A	VBN3CF3P0B	VBN3CF3P0C	VBN3CF3P0D	VBN3CF3P0X
	3.5		VBN3CG3P0A	VBN3CG3P0B	VBN3CG3P0C	VBN3CG3P0D	VBN3CG3P0X
	4.5		VBN3CH3P0A	VBN3CH3P0B	VBN3CH3P0C	VBN3CH3P0D	VBN3CH3P0X
	8.6		VBN3CJ3P0A	VBN3CJ3P0B	VBN3CJ3P0C	VBN3CJ3P0D	VBN3CJ3P0X
	14.9		VBN3CK3P0A	VBN3CK3P0B	VBN3CK3P0C	VBN3CK3P0D	VBN3CK3P0X
	22		VBN3CL3P0A	VBN3CL3P0B	VBN3CL3P0C	VBN3CL3P0D	VBN3CL3P0X
1-1/4 in.	31		VBN3CM3P0A	VBN3CM3P0B	VBN3CM3P0C	VBN3CM3P0D	VBN3CM3P0X
	4.1	40	VBN3DH3P0A	VBN3DH3P0B	VBN3DH3P0C	VBN3DH3P0D	VBN3DH3P0X
	8.7		VBN3DJ3P0A	VBN3DJ3P0B	VBN3DJ3P0C	VBN3DJ3P0D	VBN3DJ3P0X
	12.7		VBN3DK3P0A	VBN3DK3P0B	VBN3DK3P0C	VBN3DK3P0D	VBN3DK3P0X
	19.4		VBN3DL3P0A	VBN3DL3P0B	VBN3DL3P0C	VBN3DL3P0D	VBN3DL3P0X
	27		VBN3DM3P0A	VBN3DM3P0B	VBN3DM3P0C	VBN3DM3P0D	VBN3DM3P0X
1-1/2 in.	34		VBN3DN3P0A	VBN3DN3P0B	VBN3DN3P0C	VBN3DN3P0D	VBN3DN3P0X
	4		VBN3EH3P0A	VBN3EH3P0B	VBN3EH3P0C	VBN3EH3P0D	VBN3EH3P0X
	8.3		VBN3EJ3P0A	VBN3EJ3P0B	VBN3EJ3P0C	VBN3EJ3P0D	VBN3EJ3P0X
	13.4		VBN3EK3P0A	VBN3EK3P0B	VBN3EK3P0C	VBN3EK3P0D	VBN3EK3P0X
	24		VBN3EL3P0A	VBN3EL3P0B	VBN3EL3P0C	VBN3EL3P0D	VBN3EL3P0X
	32		VBN3EM3P0A	VBN3EM3P0B	VBN3EM3P0C	VBN3EM3P0D	VBN3EM3P0X
2 in.	61		VBN3EP3P0A	VBN3EP3P0B	VBN3EP3P0C	VBN3EP3P0D	VBN3EP3P0X
	24		VBN3FL3P0A	VBN3FL3P0B	VBN3FL3P0C	VBN3FL3P0D	VBN3FL3P0X
	38		VBN3FN3P0A	VBN3FN3P0B	VBN3FN3P0C	VBN3FN3P0D	VBN3FN3P0X
	57		VBN3FP3P0A	VBN3FP3P0B	VBN3FP3P0C	VBN3FP3P0D	VBN3FP3P0X
	83		VBN3FR3P0A	VBN3FR3P0B	VBN3FR3P0C	VBN3FR3P0D	VBN3FR3P0X
2-1/2 in.	109		VBN3FT3P0A	VBN3FT3P0B	VBN3FT3P0C	VBN3FT3P0D	VBN3FT3P0X
	38		VBN3GN3P0A	VBN3GN3P0B	VBN3GN3P0C	VBN3GN3P0D	VBN3GN3P0X
	74		VBN3GR3P0A	VBN3GR3P0B	VBN3GR3P0C	VBN3GR3P0D	VBN3GR3P0X
	100		VBN3GS3P0A	VBN3GS3P0B	VBN3GS3P0C	VBN3GS3P0D	VBN3GS3P0X

3-Way



3-Way NPT NEMA 3R

Actuator Features	Non-fail Safe		Fail Safe		Valve Only
Actuator O.S. Number	MN6105A1011	MN7505A2001	MS8105A1008	MS7505A2008	
Power Supply	24 Vac	24 Vac	24 Vac	24 Vac	
Cycle Rate	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	
Actuator Torque (lb.-in.)	44	44	44	44	
Control (0)2-10 Vdc		•		•	
4-20 mA (*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	A-AB Closed	A-AB Closed	
Actuator Stroke (degrees)	95° ± 3°	95° ± 3°	95° ± 3°	95° ± 3°	
Timing (seconds)	90	90	45	90	
Feedback 2-10 Vdc Built In		•		•	



Valve Features			Valve O.S. Number			
Valve Size (inches)	Cv	Close-off Differential Pressure (psi)	Nickel-plated Brass Trim			
1/2 in.	0.33	50	VBN3AB3PRA	VBN3AB3PRB	VBN3AB3PRC	VBN3AB3PRD
	0.59		VBN3AC3PRA	VBN3AC3PRB	VBN3AC3PRC	VBN3AC3PRD
	1		VBN3AE3PRA	VBN3AE3PRB	VBN3AE3PRC	VBN3AE3PRD
	2.4		VBN3AF3PRA	VBN3AF3PRB	VBN3AF3PRC	VBN3AF3PRD
	4.3		VBN3AH3PRA	VBN3AH3PRB	VBN3AH3PRC	VBN3AH3PRD
	8		VBN3AJ3PRA	VBN3AJ3PRB	VBN3AJ3PRC	VBN3AJ3PRD
3/4 in.	0.4		VBN3BC3PRA	VBN3BC3PRB	VBN3BC3PRC	VBN3BC3PRD
	0.66		VBN3BD3PRA	VBN3BD3PRB	VBN3BD3PRC	VBN3BD3PRD
	1.3		VBN3BE3PRA	VBN3BE3PRB	VBN3BE3PRC	VBN3BE3PRD
	2.4		VBN3BF3PRA	VBN3BF3PRB	VBN3BF3PRC	VBN3BF3PRD
	3.8		VBN3BG3PRA	VBN3BG3PRB	VBN3BG3PRC	VBN3BG3PRD
	7		VBN3BJ3PRA	VBN3BJ3PRB	VBN3BJ3PRC	VBN3BJ3PRD
1 in.	11		VBN3BK3PRA	VBN3BK3PRB	VBN3BK3PRC	VBN3BK3PRD
	0.4		VBN3CC3PRA	VBN3CC3PRB	VBN3CC3PRC	VBN3CC3PRD
	0.65		VBN3CD3PRA	VBN3CD3PRB	VBN3CD3PRC	VBN3CD3PRD
	1.3		VBN3CE3PRA	VBN3CE3PRB	VBN3CE3PRC	VBN3CE3PRD
	2.3		VBN3CF3PRA	VBN3CF3PRB	VBN3CF3PRC	VBN3CF3PRD
	3.5		VBN3CG3PRA	VBN3CG3PRB	VBN3CG3PRC	VBN3CG3PRD
	4.5		VBN3CH3PRA	VBN3CH3PRB	VBN3CH3PRC	VBN3CH3PRD
	8.6		VBN3CJ3PRA	VBN3CJ3PRB	VBN3CJ3PRC	VBN3CJ3PRD
	14.9		VBN3CK3PRA	VBN3CK3PRB	VBN3CK3PRC	VBN3CK3PRD
	22		VBN3CL3PRA	VBN3CL3PRB	VBN3CL3PRC	VBN3CL3PRD
1-1/4 in.	31		VBN3CM3PRA	VBN3CM3PRB	VBN3CM3PRC	VBN3CM3PRD
	4.1	40	VBN3DH3PRA	VBN3DH3PRB	VBN3DH3PRC	VBN3DH3PRD
	8.7		VBN3DJ3PRA	VBN3DJ3PRB	VBN3DJ3PRC	VBN3DJ3PRD
	12.7		VBN3DK3PRA	VBN3DK3PRB	VBN3DK3PRC	VBN3DK3PRD
	19.4		VBN3DL3PRA	VBN3DL3PRB	VBN3DL3PRC	VBN3DL3PRD
	27		VBN3DM3PRA	VBN3DM3PRB	VBN3DM3PRC	VBN3DM3PRD
1-1/2 in.	34		VBN3DN3PRA	VBN3DN3PRB	VBN3DN3PRC	VBN3DN3PRD
	4		VBN3EH3PRA	VBN3EH3PRB	VBN3EH3PRC	VBN3EH3PRD
	8.3		VBN3EJ3PRA	VBN3EJ3PRB	VBN3EJ3PRC	VBN3EJ3PRD
	13.4		VBN3EK3PRA	VBN3EK3PRB	VBN3EK3PRC	VBN3EK3PRD
	24		VBN3EL3PRA	VBN3EL3PRB	VBN3EL3PRC	VBN3EL3PRD
	32		VBN3EM3PRA	VBN3EM3PRB	VBN3EM3PRC	VBN3EM3PRD
2 in.	61		VBN3EP3PRA	VBN3EP3PRB	VBN3EP3PRC	VBN3EP3PRD
	24		VBN3FL3PRA	VBN3FL3PRB	VBN3FL3PRC	VBN3FL3PRD
	38		VBN3FN3PRA	VBN3FN3PRB	VBN3FN3PRC	VBN3FN3PRD
	57		VBN3FP3PRA	VBN3FP3PRB	VBN3FP3PRC	VBN3FP3PRD
	83		VBN3FR3PRA	VBN3FR3PRB	VBN3FR3PRC	VBN3FR3PRD
2-1/2 in.	109		VBN3FT3PRA	VBN3FT3PRB	VBN3FT3PRC	VBN3FT3PRD
	38		VBN3GN3PRA	VBN3GN3PRB	VBN3GN3PRC	VBN3GN3PRD
	74		VBN3GR3PRA	VBN3GR3PRB	VBN3GR3PRC	VBN3GR3PRD
	100		VBN3GS3PRA	VBN3GS3PRB	VBN3GS3PRC	VBN3GS3PRD



3-Way

CONTROL BALL VALVES

Flanged Control Ball Valves 4"-6"

2-Way Flanged NEMA 2+3R

Common Features

- Maximum static pressure 240 psi (-22°F to 250°F)
- 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 (linear full port)

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.	Valve Only
	MN6134A1003 - 6 in.	MN7234A2008 - 6 in.	MS8120A1007 - 6 in.	MS7520A2007 - 6 in.	
Power Supply	24 Vac	24 Vac	24 Vac	24 Vac	
Cycle Rate	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	
Actuator Torque (lb.-in.)	88/300	88/300	88/175	88/175	
Control (0)2-10 Vdc		•		•	
4-20 mA (*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 (seconds)	90	90	90	90	
Feedback 2-10 Vdc Built In		•		•	

Valve Features			Valve O.S. Number				
Valve Size (inches)	Cv	Close-off Differential Pressure (psi)	Stainless Steel Trim				
			NEMA 2 Actuator				
4 in.	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 in.	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 in.	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 in.	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 in.	144		VBF2KU1SRA	VBF2KU1SRB	VBF2KU1SRC	VBF2KU1SRD	—
	185		VBF2K11SRA	VBF2K11SRB	VBF2K11SRC	VBF2K11SRD	—
	240		VBF2K21SRA	VBF2K21SRB	VBF2K21SRC	VBF2K21SRD	—
	309		VBF2K31SRA	VBF2K31SRB	VBF2K31SRC	VBF2K31SRD	—
	400		VBF2K41SRA	VBF2K41SRB	VBF2K41SRC	—	—
6 in.	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	—	—

2-Way

3-Way Flanged NEMA 2+3R

Common Features

- Mixing or diverting with the same 3-way valve
- Globe valve A-B-AB flow pattern (side B port)
- Three-way: A-AB equal percentage, B-AB linear (80% of Cv on B-port)

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.	Valve Only
	MN6134A1003 - 6 in.	MN7234A2008 - 6 in.	MS8120A1007 - 6 in.	MS7520A2007 - 6 in.	
Power Supply	24 Vac	24 Vac	24 Vac	24 Vac	
Cycle Rate	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	
Actuator Torque (lb.-in.)	88/300	88/300	88/175	88/175	
Control (0)2-10 Vdc		•		•	
4-20 mA (*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 (seconds)	90	90	90	90	
Feedback 2-10 Vdc Built In		•		•	

Valve Features			Valve O.S. Number				
Valve Size (inches)	Cv	Close-off Differential Pressure (psi)	Stainless Steel Trim				
			NEMA 2 Actuator				
4 in.	91	70	VBFB3JS1S0A	VBFB3JS1S0B	VBFB3JS1S0C	VBFB3JS1S0D	VBFB3JS1S0X
	118		VBFB3JT1S0A	VBFB3JT1S0B	VBFB3JT1S0C	VBFB3JT1S0D	VBFB3JT1S0X
	152		VBFB3JU1S0A	VBFB3JU1S0B	VBFB3JU1S0C	VBFB3JU1S0D	VBFB3JU1S0X
	197		VBFB3J11S0A	VBFB3J11S0B	VBFB3J11S0C	VBFB3J11S0D	VBFB3J11S0X
	254		VBFB3J21S0A	VBFB3J21S0B	VBFB3J21S0C	VBFB3J21S0D	VBFB3J21S0X
	327		VBFB3J31S0A	VBFB3J31S0B	VBFB3J31S0C	VBFB3J31S0D	VBFB3J31S0X
5 in.	144		VBFB3KU1S0A	VBFB3KU1S0B	VBFB3KU1S0C	VBFB3KU1S0D	VBFB3KU1S0X
	185		VBFB3K11S0A	VBFB3K11S0B	VBFB3K11S0C	VBFB3K11S0D	VBFB3K11S0
	240		VBFB3K21S0A	VBFB3K21S0B	VBFB3K21S0C	VBFB3K21S0D	VBFB3K21S0X
	309		VBFB3K31S0A	VBFB3K31S0B	VBFB3K31S0C	VBFB3K31S0D	VBFB3K31S0X
	400		VBFB3K41S0A	VBFB3K41S0B	VBFB3K41S0C	—	VBFB3K41S0X
6 in.	208		VBFB3L11S0A	VBFB3L11S0B	VBFB3L11S0C	VBFB3L11S0D	VBFB3L11S0X
	268		VBFB3L21S0A	VBFB3L21S0B	VBFB3L21S0C	VBFB3L21S0D	VBFB3L21S0X
	346		VBFB3L41S0A	VBFB3L41S0B	VBFB3L41S0C	—	VBFB3L41S0X
	441		VBFB3L51S0A	VBFB3L51S0B	VBFB3L51S0C	—	VBFB3L51S0X
	577		VBFB3L61S0A	VBFB3L61S0B	VBFB3L61S0C	—	VBFB3L61S0X
	650		VBFB3L71S0A	VBFB3L71S0B	VBFB3L71S0C	—	VBFB3L71S0X
			NEMA 3R Actuator				—
4 in.	91	70	VBFB3JS1SRA	VBFB3JS1SRB	VBFB3JS1SRC	VBFB3JS1SRD	—
	118		VBFB3JT1SRA	VBFB3JT1SRB	VBFB3JT1SRC	VBFB3JT1SRD	—
	152		VBFB3JU1SRA	VBFB3JU1SRB	VBFB3JU1SRC	VBFB3JU1SRD	—
	197		VBFB3J11SRA	VBFB3J11SRB	VBFB3J11SRC	VBFB3J11SRD	—
	254		VBFB3J21SRA	VBFB3J21SRB	VBFB3J21SRC	VBFB3J21SRD	—
	327		VBFB3J31SRA	VBFB3J31SRB	VBFB3J31SRC	VBFB3J31SRD	—
5 in.	144		VBFB3KU1SRA	VBFB3KU1SRB	VBFB3KU1SRC	VBFB3KU1SRD	—
	185		VBFB3K11SRA	VBFB3K11SRB	VBFB3K11SRC	VBFB3K11SRD	—
	240		VBFB3K21SRA	VBFB3K21SRB	VBFB3K21SRC	VBFB3K21SRD	—
	309		VBFB3K31SRA	VBFB3K31SRB	VBFB3K31SRC	VBFB3K31SRD	—
	400		VBFB3K41SRA	VBFB3K41SRB	VBFB3K41SRC	—	—
6 in.	208		VBFB3L11SRA	VBFB3L11SRB	VBFB3L11SRC	VBFB3L11SRD	—
	268		VBFB3L21SRA	VBFB3L21SRB	VBFB3L21SRC	VBFB3L21SRD	—
	346		VBFB3L41SRA	VBFB3L41SRB	VBFB3L41SRC	—	—
	441		VBFB3L51SRA	VBFB3L51SRB	VBFB3L51SRC	—	—
	577		VBFB3L61SRA	VBFB3L61SRB	VBFB3L61SRC	—	—
	650		VBFB3L71SRA	VBFB3L71SRB	VBFB3L71SRC	—	—



3-Way

CONTROL BALL VALVES

NPT Globe Valves 1/2"- 3"

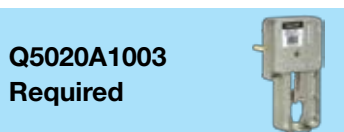
With Damper Direct Coupled Actuators

For more than 50 years, Honeywell Globe Valves line (V5011/13, VGF) has provided a legacy of valves with the most precise control for any application.

The current globe valve and actuator families provide the rangeability and close-off needed to keep tight control of the environment.

Common Features

- ANSI body class 150
- Close-off pressure = maximum differential pressure
- Maximum static water pressure (250°F): 240 psi
- Maximum steam pressure (2-way steam valves, 337°F): 100 psi
- Maximum steam pressure (2-way water valves): 15 psi
- Stem travel: 0.75"
- Rangeability: 50:1
- Leakage < 0.05% of Cv
- Body material: Red brass, stainless steel stem (steam valve has stainless steel trim)



Actuator Features	Non-fail Safe				
Actuator O.S. Number	ML7161A2008	ML6161B2024	ML7174A2001	ML6174B2019	MN7505A2001 MN7505A2209
Power Supply	24 Vac	24 Vac	24 Vac	24 Vac	24 Vac
Cycle Rate	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz
Actuator Torque (lb-in)	35	35	70	70	44
Control (0)2-10 Vdc	•		•		•
4-20 mA (* 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	Stay in Place
Normal Action (no signal) (field reversible)	Stem Up	Stem Up	Stem Up	Stem Up	Stem Up
Actuator Stroke (degrees)	90°	90°	90°	90°	95°
Stroke Timing (60 Hz) (seconds)	90	90	90	90	95
Aux Switch 2 x SPDT Built In					0 / 2
1 x SPDT Add-On	201052A	201052A	201052A	201052A	
2 x SPDT Add-On	201052B	201052B	201052B	201052B	SSW2
Feedback (0)2-10 Vdc Built In					•
500 Ohm Add-On	200976A	200976A	200976A	200976A	
2 kOhm Add-On	200976B	200976B	200976B	200976B	

Valve Size (inches)	Cv	Flow Characteristic	Valve Action	Valve OS Number	Close-off Pressure				
0.5"	0.73	Equal %	Stem down to close	V5011N1008	230	230	230	230	230
0.5"	1.16			V5011N1016	230	230	230	230	230
0.5"	1.85			V5011N1024	230	230	230	230	230
0.5"	2.9			V5011N1032	230	230	230	230	230
0.5"	2.9		Stem up to close	V5011N3004	230	230	230	230	230
0.5"	4.7		Stem down to close	V5011N1040	143	143	230	230	188
0.5"	4.7		Stem up to close	V5011N3012	143	143	230	230	188
0.75"	7.3		Stem down to close	V5011N1057	69	69	156	156	91
0.75"	7.3		Stem up to close	V5011N3020	69	69	156	156	91
1"	11.7		Stem down to close	V5011N1065	47	47	109	109	63
1"	11.7		Stem up to close	V5011N3038	47	47	109	109	63
1.25"	18.7		Stem down to close	V5011N1073	29	29	69	69	39
1.25"	18.7		Stem up to close	V5011N3046	29	29	69	69	39
1.5"	29.3		Stem down to close	V5011N1081	17	17	44	44	24
2"	46.8			V5011N1099	8	8	24	24	12
2.5"	63			V5011F1105	5	5	16	16	7
3"	100			V5011F1113	2	2	9	9	3
0.5"	0.73	Linear	Stem down to close	V5011N2006	100	100	100	100	100
0.5"	1.16			V5011N2014	100	100	100	100	100
0.5"	1.85			V5011N2022	100	100	100	100	100
0.5"	2.9			V5011N2030	100	100	100	100	100
0.5"	4.7			V5011N2048	100	100	100	100	100
0.75"	7.3			V5011N2055	69	69	100	100	91
1"	11.7			V5011N2063	47	47	100	100	63
1.25"	18.7			V5011N2071	29	29	69	69	39
1.5"	29.3			V5011N2089	17	17	44	44	24
2"	46.8			V5011N2097	8	8	24	24	12
2.5"	63			V5011G1111	5	5	16	16	7
3"	100			V5011G1129	2	2	9	9	3
0.5"	2.9	Linear B-AB / Equal % A-AB	Stem up closes A-AB	V5013N1030	230	230	230	230	230
0.5"	4.7			V5013N1048	143	143	230	230	188
0.75"	7.3			V5013N1055	69	69	156	156	91
1"	11.7			V5013N1063	47	47	109	109	63
1.25"	18.7			V5013N1071	29	29	69	69	39
1.5"	29.3			V5013N1089	17	17	44	44	24
2"	46.8			V5013N1097	8	8	24	24	12
2"	46.8			V5013N1097		8	8	24	24



2-Way Water Valves
Straight Through



2-Way Steam Valves
Straight Through



3-Way Water Valves
Mixing



Non-fail Safe							Fail Safe								
MN6105A1011 MN6105A1201	MN7510A2001 MN7505A2209	MN6110A1003 MN6110A1201	MN7220A2007 MN7220A2205	MN6120A1002 MN6120A1200	MN7234A2008	MN6134A1003	MS7505A2008	MS8105A1008	MS4105A1002	MS7510A2008 MS7510A2206 MS7510H2209	MS8110A1008 MS8110A1206	MS4110A1002 MS4110A1200	MS7520A2007 MS7520A2205 MS7520H2208	MS8120A1007 MS8120A1205	MS4120A1001 MS4120A1209
24 Vac	24 Vac	24 Vac	24 Vac	24 Vac	24 Vac	24 Vac	24 Vac	24 Vac	100-250 Vac	24 Vac	24 Vac	100-250 Vac	24 Vac	24 Vac	100-250 Vac
50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	60 Hz	50 / 60 Hz	50 / 60 Hz	60 Hz	50 / 60 Hz	50 / 60 Hz	60 Hz
44	88	88	175	175	300	300	44	44	44	88	88	88	175	175	175
	•		•		•		•			•			•		
	•*		•*		•*		•*			•*			•*		
•	•	•	•	•	•	•	•			•			•		
•	•	•	•	•		•	•			•			•		
								•	•		•	•		•	•
Stay in Place	Stay in Place	Stay in Place	Stay in Place	Stay in Place	Stay in Place	Stay in Place	Open/Closed (configurable)	Open/Closed (configurable)	Open/Closed (configurable)	Open/Closed (configurable)	Open/Closed (configurable)	Open/Closed (configurable)	Open/Closed (configurable)	Open/Closed (configurable)	Open/Closed (configurable)
Stem Up	Stem Up	Stem Up	Stem Up	Stem Up	Stem Up	Stem Up	Stem Up	Stem Up	Stem Up	Stem Up	Stem Up	Stem Up	Stem Up	Stem Up	Stem Up
95°	95°	95°	95°	95°	95°	95°	95°	95°	95°	95°	95°	95°	95°	95°	95°
95	95	95	95	95	95	95	90	90	90	90	90	90	90	90	90
0 / 2	0 / 2	0 / 2	0 / 2	0 / 2						0 / 2 / 2	0 / 2	0 / 2	0 / 2 / 2	0 / 2	0 / 2
SSW2	SSW2	SSW2	SW2-US	SW2-US	SW2-US	SW2-US	SW2-US	SW2-US	SW2-US	SW2-US	SW2-US	SW2-US	SW2-US	SW2-US	SW2-US
	•		•		•		•			•			•		
Close-off Pressure															
230	230	230	230	230	230	230	230	230	230	230	230	230	230	230	230
230	230	230	230	230	230	230	230	230	230	230	230	230	230	230	230
230	230	230	230	230	230	230	230	230	230	230	230	230	230	230	230
230	230	230	230	230	230	230	230	230	230	230	230	230	230	230	230
230	230	230	230	230	230	230	230	230	230	230	230	230	230	230	230
188	230	230	230	230	230	230	184	184	184	230	230	230	230	230	230
188	230	230	230	230	230	230	184	184	184	230	230	230	230	230	230
91	192	192	230	230	230	230	79	79	79	150	150	150	230	230	230
91	192	192	230	230	230	230	79	79	79	150	150	150	230	230	230
63	135	135	230	230	230	230	66	66	66	136	136	136	230	230	230
63	135	135	230	230	230	230	66	66	66	136	136	136	230	230	230
39	85	85	168	168	230	230	40	40	40	84	84	84	171	171	171
39	85	85	168	168	230	230	40	40	40	84	84	84	171	171	171
24	55	55	113	113	180	180	26	26	26	55	55	55	113	113	113
12	30	30	63	63	103	103	13	13	13	30	30	30	63	63	63
7	19	19	42	42	74	74	9	9	9	21	21	21	45	45	45
3	11	11	26	26	45	45	6	6	6	13	13	13	27	27	27
100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
91	100	100	100	100	100	100	79	79	79	100	100	100	100	100	100
63	100	100	100	100	100	100	66	66	66	100	100	100	100	100	100
39	85	85	100	100	100	100	40	40	40	84	84	84	100	100	100
24	55	55	100	100	100	100	26	26	26	55	55	55	100	100	100
12	30	30	58	58	100	100	13	13	13	30	30	30	63	63	63
7	19	19	42	42	74	74	9	9	9	21	21	21	45	45	45
3	11	11	26	26	45	45	6	6	6	13	13	13	27	27	27
230	230	230	230	230	230	230	230	230	230	230	230	230	230	230	230
188	230	230	230	230	230	230	184	184	184	230	230	230	230	230	230
91	192	192	230	230	230	230	79	79	79	150	150	150	230	230	230
63	135	135	230	230	230	230	66	66	66	136	136	136	230	230	230
39	85	85	168	168	230	230	40	40	40	84	84	84	171	171	171
24	55	55	105	105	180	180	26	26	26	55	55	55	113	113	113
12	30	30	103	103	103	103	13	13	13	30	30	30	63	63	63
				103	103	103	103	13	13	13	30	30	30	63	63

NPT Globe Valves 1/2"- 3"

With Dedicated Valve Actuators

Common Features

- ANSI body class 150
- Close-Off pressure = maximum differential pressure
- Maximum static water pressure (250°F): 240 psi
- Maximum steam pressure (2-way steam valves, 337°F): 100 psi
- Maximum steam pressure (2-way water valves): 15 psi
- Stem travel: 0.75"
- Rangeability: 50:1
- Leakage < 0.05% of Cv
- Body material: Red brass, stainless steel stem (steam valve has stainless steel trim)



Actuator Features		Non-fail Safe	
Actuator O.S. Number		ML7984A4009	ML6984A4000
Power Supply		24 Vac / 28 Vdc	24 Vac / 28 Vdc
Cycle Rate		50 / 60 Hz	50 / 60 Hz
Actuator Stem Force (lbs.)		160	160
Control (0)2-10 Vdc		•	
4-20 mA (* 500 Ohm Resistor)		•	
Floating			•
Two-Position SPDT			•
Two-Position SPST			
135 Ohm		•	
Fail Safe Action		Stay in place	Stay in place
Normal Position (no signal) (field configurable)		Stem Up	Stem Up
Actuator Stroke (inches)		0.5 - 1 self adj	0.5 - 1 self adj
Timing (seconds at 0.75" stroke)		63	63
Aux Switch 1 x SPDT Add-On		272630D	272630D
2 x SPDT Add-On			
Feedback 2-10 Vdc Built In			
2-10 Vdc Add-On		272630D	272630D
220 Ohm Add-On			
10 kOhm Add-On			



2-Way
Water Valves
Straight Through



2-Way
Steam Valves
Straight Through

3-Way
Water Valves
Mixing

Valve Size (inches)	Cv	Flow Characteristic	Valve Action	Valve OS Number		
1/2"	0.73	Equal %	Stem down to close	V5011N1008	230	230
1/2"	1.16			V5011N1016	230	230
1/2"	1.85			V5011N1024	230	230
1/2"	2.9			V5011N1032	230	230
1/2"	2.9		Stem up to close	V5011N3004	230	230
1/2"	4.7		Stem down to close	V5011N1040	230	230
1/2"	4.7		Stem up to close	V5011N3012	230	230
3/4"	7.3		Stem down to close	V5011N1057	230	230
3/4"	7.3		Stem up to close	V5011N3020	230	230
1"	11.7		Stem down to close	V5011N1065	193	193
1"	11.7		Stem up to close	V5011N3038	193	193
1-1/4"	18.7		Stem down to close	V5011N1073	123	123
1-1/4"	18.7		Stem up to close	V5011N3046	123	123
1-1/2"	29.3		Stem down to close	V5011N1081	79	79
2"	46.8			V5011N1099	44	44
2-1/2"	63			V5011F1105	33	33
3"	100			V5011F1113	19	19
1/2"	0.73	Linear	Stem down to close	V5011N2006	100	100
1/2"	1.16			V5011N2014	100	100
1/2"	1.85			V5011N2022	100	100
1/2"	2.9			V5011N2030	100	100
1/2"	4.7			V5011N2048	100	100
3/4"	7.3			V5011N2055	100	100
1"	11.7			V5011N2063	100	100
1-1/4"	18.7			V5011N2071	100	100
1-1/2"	29.3			V5011N2089	79	79
2"	46.8			V5011N2097	44	44
2-1/2"	63			V5011G1111	33	33
3"	100			V5011G1129	19	19
1/2"	2.9	Linear B-AB / Equal % A-AB	Stem up closes A-AB	V5013N1030	230	230
1/2"	4.7			V5013N1048	230	230
3/4"	7.3			V5013N1055	230	230
1"	11.7			V5013N1063	193	193
1-1/4"	18.7			V5013N1071	123	123
1-1/2"	29.3			V5013N1089	79	79
2"	46.8			V5013N1097	44	44



Non-fail Safe						Fail Safe			
ML7420A3055	ML7420A3063	ML6420A3049	ML6420A3056	ML7421A1032	ML6421A1017	ML7425A3013	ML7425B3012	ML6425A3022	ML6425B3013
24 Vac	24 Vac	24 Vac	24 Vac	24 Vac	24 Vac	24 Vac	24 Vac	24 Vac	24 Vac
60 Hz	60 Hz	60 Hz	60 Hz	60 Hz	60 Hz	60 Hz	60 Hz	60 Hz	60 Hz
135	135	135	135	404	404	135	135	135	135
•	•			•		•	•		
•*	•*			•		•*	•*		
		•	•		•			•	•
		•	•		•			•	•
								•	•
Stay in place	Stay in place	Stay in place	Stay in place	Stay in place	Stay in place	Stem Down	Stem Up	Stem Down	Stem Up
Stem Up	Stem Up	Stem Up	Stem Up	Stem Up	Stem Up	Stem Up	Stem Up	Stem Up	Stem Up
0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
60	30	60	30	90	90	90	90	90	90
43191680-105	43191680-105	43191680-105	43191680-105	43191680-102	43191680-102	43191680-105	43191680-105	43191680-105	43191680-105
•	•			•		•	•		
		43191679-111	43191679-111		43191679-101			43191679-111	
		43191679-112	43191679-111					43191679-112	
Close-off Pressure									
230	230	230	230			230	230	230	230
230	230	230	230			230	230	230	230
230	230	230	230			230	230	230	230
230	230	230	230			230	230	230	230
230	230	230	230			230	230	230	230
230	230	230	230			230	230	230	230
230	230	230	230			230	230	230	230
230	230	230	230			230	230	230	230
230	230	230	230			230	230	230	230
163	163	163	163	230	230	163	163	163	163
163	163	163	163	230	230	163	163	163	163
104	104	104	104	230	230	104	104	104	104
104	104	104	104	230	230	104	104	104	104
67	67	67	67	221	221	67	67	67	67
37	37	37	37	126	126	37	37	37	37
28	28	28	28	100	100	28	28	28	28
16	16	16	16	61	61	16	16	16	16
100	100	100	100			100	100	100	100
100	100	100	100			100	100	100	100
100	100	100	100			100	100	100	100
100	100	100	100			100	100	100	100
100	100	100	100			100	100	100	100
100	100	100	100			100	100	100	100
100	100	100	100	100	100	100	100	100	100
100	100	100	100	100	100	100	100	100	100
67	67	67	67	100	100	67	67	67	67
37	37	37	37	100	100	37	37	37	37
28	28	28	28	100	100	28	28	28	28
16	16	16	16	61	61	16	16	16	16
230	230	230	230			230	230	230	230
230	230	230	230			230	230	230	230
230	230	230	230			230	230	230	230
163	163	163	163	230	230	163	163	163	163
104	104	104	104	230	230	104	104	104	104
67	67	67	67	221	221	67	67	67	67
37	37	37	37	126	126	37	37	37	37

Flanged Globe Valves 2½" - 3"

With Damper Direct Coupled Actuators

Common Features

- ANSI body class 125 or 250
- Close-off pressure = Maximum differential pressure
- Maximum static water pressure: Up to 400 psi
- Maximum steam pressure (VGF, 2-pos or modulating): 100 psi
- Maximum steam pressure (V5011, 2-pos): 15 psi
- Stem travel: 0.75"
- Rangeability: 50:1
- Leakage < 0.05% of Cv
- Body material: Cast iron
- Body trim: Stainless steel stem, brass seat (V5011/13), stainless steel (VGF)



Actuator Features		Non-fail Safe	
Q5020A1003 Required			
Actuator O.S. Number		ML7174A2001	ML6174B2019
Power Supply		24 Vac	24 Vac
Cycle Rate		50 / 60 Hz	50 / 60 Hz
Actuator Stem Force (lb.-in.)		70	70
Control (0)2-10 Vdc		•	
4-20 mA (* 500 Ohm Resistor)		•	
Floating			•
Two-Position SPDT			•
Two-Position SPST			
Fail Safe Action		Stay in Place	Stay in Place
Normal Position (no signal) (field configurable)		Stem Up	Stem Up
Actuator Stroke (inches)		90°	90°
Timing (seconds)		90	90
Aux Switch 2 x SPDT Built In			
1 x SPDT Add-On		201052A	201052A
2 x SPDT Add-On		201052B	201052B
Feedback (0)2-10 Vdc Built In			
500 Ohm Add-On		200976A	200976A
2 kOhm Add-On		200976B	200976B

2-Way Water & Steam Valves

Valve Size (inches)	Cv	Valve Type	Max Static Water Pressure	ANSI Class	Max Steam Pressure	Flow Characteristic	Valve Action	Valve OS Number			
2.5"	63	Standard	250 psi	125	15 psi (2-position)	Equal %	Stem down to close	V5011A1734	21	21	
	70	Pressure Balanced	175 psi		100 psi	Equal %		VGF21EP25			
	70	Standard				Equal %		VGF21ES25	18	18	
	72	Pressure Balanced				Linear		VGF21LP25			
	70	Standard				Linear		VGF21LS25	18	18	
70	Standard	400 psi	250		Equal %	VGF22ES25		18	18		
3"	100	Standard	250 psi	125	15 psi (2-position)	Equal %		Stem down to close	V5011A1767	9	9
	115	Pressure Balanced	175 psi		100 psi	Equal %			VGF21EP30		
	115	Standard				Equal %			VGF21ES30	9	9
	120	Pressure Balanced				Linear			VGF21LP30		
	125	Standard				Linear			VGF21LS30	9	9
120	Standard	400 psi	250		Equal %	VGF22ES30			9	9	
2.5"	63	Mixing	250 psi	125	N/A	Constant Total	Stem up closes A-AB		V5013B1003	21	21
	63	Diverting	250 psi			Constant Total	Stem up closes B-AB	V5013C1001	21	21	
	70	Mixing	175 psi			Equal % A-AB	Stem up closes A-AB	VGF31EM25	23	23	
	70	Diverting	175 psi			Linear, Constant Total	Stem up closes B-AB	VGF31LD25	18	18	
	70	Mixing	400 psi			250	Equal % A-AB	Stem up closes A-AB	VGF32EM25	23	23
70	Diverting	400 psi	250	Linear, Constant Total		Stem up closes B-AB	VGF32LD25	18	18		
3"	100	Mixing	250 psi	125		Constant Total	Stem up closes A-AB	V5013B1011	9	9	
	100	Diverting	250 psi			Constant Total	Stem up closes B-AB	V5013C1019	9	9	
	120	Mixing	175 psi			Equal % A-AB	Stem up closes A-AB	VGF31EM30	15	15	
	120	Diverting	175 psi			Linear, Constant Total	Stem up closes B-AB	VGF31LD30	9	9	
	115	Mixing	400 psi			250	Equal % A-AB	Stem up closes A-AB	VGF32EM30	15	15
120	Diverting	400 psi	250	Linear, Constant Total		Stem up closes B-AB	VGF32LD30	9	9		



Non-fail Safe						Fail Safe					
MN7510A2001 MN7505A2209	MN6110A1003 MN6110A1201	MN7220A2007	MN6120A1002	MN7234A2008	MN6134A1003	MS7510A2008 MS7510A2206 MS7510H2209	MS8110A1008	MS4110A1002	MS7520A2007 MS7520A2205 MS7520H2208	MS8120A1007	MS4120A1001
24 Vac	24 Vac	24 Vac	24 Vac	24 Vac	24 Vac	24 Vac	24 Vac	100-250 Vac	24 Vac	24 Vac	100-250 Vac
50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	60 Hz	50 / 60 Hz	50 / 60 Hz	60 Hz
88	88	175	175	300	300	88	88	88	175	175	175
•		•		•		•			•		
•*		•*		•*		•*			•*		
•	•	•	•		•	•			•		
•	•	•	•		•	•			•		
							•	•		•	•
Stay in Place	Stay in Place	Stay in Place	Stay in Place	Stay in Place	Stay in Place	Open/Closed (configurable)	Open/Closed (configurable)	Open/Closed (configurable)	Open/Closed (configurable)	Open/Closed (configurable)	Open/Closed (configurable)
Stem Up	Stem Up	Stem Up	Stem Up	Stem Up	Stem Up	Stem Up	Stem Up	Stem Up	Stem Up	Stem Up	Stem Up
95°	95°	95°	95°	95°	95°	95°	95°	95°	95°	95°	95°
95	95	95	95	95	95	90	90	90	90	90	90
0 / 2	0 / 2	0 / 2	0 / 2			0 / 2 / 2	0 / 2	0 / 2	0 / 2 / 2	0 / 2	0 / 2
SSW2	SSW2	SW2-US	SW2-US	SW2-US	SW2-US	SW2-US	SW2-US	SW2-US	SW2-US	SW2-US	SW2-US
•		•		•		•			•		
Close-off Pressure											
27	27	52	52	88	88	27	27	27	56	56	56
		175	175	175	175				175	175	175
34	34	52	52	77	77	33	33	33	71	71	71
		175	175	175	175				175	175	175
34	34	52	52	77	77	33	33	33	71	71	71
34	34	52	52	77	77	33	33	33	71	71	71
11	11	24	24	42	42	11	11	11	25	25	25
		175	175	175	175				175	175	175
16	16	26	26	38	38	15	15	15	35	35	35
		175	175	175	175				175	175	175
16	16	26	26	38	38	15	15	15	35	35	35
16	16	26	26	38	38	15	15	15	35	35	35
27	27	52	52	88	88	27	27	27	56	56	56
27	27	52	52	88	88	27	27	27	56	56	56
44	44	66	66	97	97	43	43	43	89	89	89
34	34	52	52	97	97	33	33	33	71	71	71
44	44	66	66	97	97	43	43	43	89	89	89
34	34	52	52	97	97	33	33	33	71	71	71
11	11	24	24	42	42	11	11	11	25	25	25
11	11	24	24	42	42	11	11	11	25	25	25
29	29	44	44	65	65	28	28	28	59	59	59
16	16	26	26	65	65	15	15	15	35	35	35
29	29	44	44	65	65	28	28	28	59	59	59
16	16	26	26	65	65	15	15	15	35	35	35

Flanged Globe Valves 2½" - 3"

With Dedicated Valve Actuators

Common Features

- ANSI body class 125 or 250
- Close-off pressure = Maximum differential pressure
- Maximum static water pressure: Up to 400 psi
- Maximum steam pressure (VGF, 2-pos or modulating): 100 psi
- Maximum steam pressure (V5011, 2-pos): 15 psi
- Stem travel: 0.75"
- Rangeability: 50:1
- Leakage < 0.05% of Cv
- Body material: Cast iron
- Body trim: Stainless steel stem, brass seat (V5011/13), stainless steel (VGF)



Actuator Features		Non-fail Safe	
Actuator O.S. Number		ML7984A4009	ML6984A4000
Power Supply		24 Vac / 28 Vdc	24 Vac / 28 Vdc
Cycle Rate		50 / 60 Hz	50 / 60 Hz
Actuator Stem Force (lbs.)		160	160
Control	(0)2-10 Vdc	•	
	4-20 mA (* 500 Ohm Resistor)	•	
	Floating		•
	Two-Position SPDT		•
	Two-Position SPST		
	135 Ohm	•	
Fail Safe Action		Stay in place	Stay in place
Normal Position (no signal) (field configurable)		Stem Up	Stem Up
Actuator Stroke (inches)		0.5 - 1 self adj	0.5 - 1 self adj
Timing (seconds at 0.75" stroke)		63	63
Aux Switch	1 x SPDT Add-On	272630D	272630D
	2 x SPDT Add-On		
Feedback	2-10 Vdc Built In		
	2-10 Vdc Add-On	272630D	272630D
	220 Ohm Add-On		
	10 kOhm Add-On		

2-Way Water & Steam Valves

Valve Size (inches)	Cv	Valve Type	Max Static Water Pressure	ANSI Class	Max Steam Pressure	Flow Characteristic	Valve Action	Valve OS Number		
2.5"	63	Standard	250 psi	125	15 psi (2-position)	Equal %	Stem down to close	V5011A1734	28	28
	70	Pressure Balanced	175 psi		100 psi	Equal %		VGf21EP25		
	70	Standard				Equal %		VGf21ES25		
	72	Pressure Balanced				Linear		VGf21LP25		
	70	Standard				Linear		VGf21LS25		
	70	Standard				Equal %		VGf22ES25		
3"	100	Standard	250 psi	250	15 psi (2-position)	Equal %		V5011A1767	16	16
	115	Pressure Balanced	175 psi		100 psi	Equal %		VGf21EP30		
	115	Standard				Equal %		VGf21ES30		
	120	Pressure Balanced				Linear		VGf21LP30		
	125	Standard				Linear		VGf21LS30		
	120	Standard				Equal %		VGf22ES30		
2.5"	63	Mixing	250 psi	125	N/A	Constant Total	Stem up closes A-AB	V5013B1003	25	25
	63	Diverting	250 psi			Constant Total	Stem up closes B-AB	V5013C1001	25	25
	70	Mixing	175 psi			Equal % A-AB	Stem up closes A-AB	VGf31EM25		
	70	Diverting	175 psi			Linear, Constant Total	Stem up closes B-AB	VGf31LD25		
	70	Mixing	400 psi			Equal % A-AB	Stem up closes A-AB	VGf32EM25		
	70	Diverting	400 psi			Linear, Constant Total	Stem up closes B-AB	VGf32LD25		
3"	100	Mixing	250 psi	125		Constant Total	Stem up closes A-AB	V5013B1011	17	17
	100	Diverting	250 psi			Constant Total	Stem up closes B-AB	V5013C1019	17	17
	120	Mixing	175 psi			Equal % A-AB	Stem up closes A-AB	VGf31EM30		
	120	Diverting	175 psi			Linear, Constant Total	Stem up closes B-AB	VGf31LD30		
	115	Mixing	400 psi			Equal % A-AB	Stem up closes A-AB	VGf32EM30		
	120	Diverting	400 psi			Linear, Constant Total	Stem up closes B-AB	VGf32LD30		



Non-fail Safe						Fail Safe			
ML7420A3055	ML7420A3063	ML6420A3049	ML6420A3056	ML7421A1032	ML6421A1017	ML7425A3013	ML7425B3012	ML6425A3022	ML6425B3013
24 Vac	24 Vac	24 Vac	24 Vac	24 Vac	24 Vac	24 Vac	24 Vac	24 Vac	24 Vac
60 Hz	60 Hz	60 Hz	60 Hz	60 Hz	60 Hz	60 Hz	60 Hz	60 Hz	60 Hz
135	135	135	135	404	404	135	135	135	135
•	•			•		•	•		
•*	•*			•		•*	•*		
		•	•		•			•	•
		•	•		•			•	•
								•	•
Stay in place	Stay in place	Stay in place	Stay in place	Stay in place	Stay in place	Stem Down	Stem Up	Stem Down	Stem Up
Stem Up	Stem Up	Stem Up	Stem Up	Stem Up	Stem Up	Stem Up	Stem Up	Stem Up	Stem Up
0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
60	30	60	30	90	90	90	90	90	90
43191680-105	43191680-105	43191680-105	43191680-105	43191680-102	43191680-102	43191680-105	43191680-105	43191680-105	43191680-105
•	•			•		•	•		
		43191679-111	43191679-111		43191679-101			43191679-111	
		43191679-112	43191679-111					43191679-112	
Close-off Pressure									
28	28	28	28	77	77	28	28	28	28
				175	175				
23	23	23	23	69	69	23	23	23	23
				175	175				
23	23	23	23	69	69	23	23	23	23
23	23	23	23	69	69	23	23	23	23
16	16	16	16	53	53	16	16	16	16
				175	175				
11	11	11	11	34	34	11	11	11	11
				175	175				
11	11	11	11	34	34	11	11	11	11
11	11	11	11	34	34	11	11	11	11
23	23	23	23	77	77	21	21	21	21
21	21	21	21	77	77	21	21	21	21
29	29	29	29	87	87	29	29	29	29
23	23	23	23	69	69	23	23	23	23
29	29	29	29	87	87	29	29	29	29
23	23	23	23	69	69	23	23	23	23
11	11	11	11	53	53	14	14	14	14
14	14	14	14	53	53	14	14	14	14
19	19	19	19	58	58	19	19	19	19
11	11	11	11	34	34	11	11	11	11
19	19	19	19	58	58	19	19	19	19
11	11	11	11	34	34	11	11	11	11

Flanged Globe Valves 4" - 6"

With Dedicated Valve Actuators

Common Features

- ANSI body class 125 or 250
- Close-off pressure = Maximum differential pressure
- Maximum static water pressure: Up to 400 psi
- Maximum steam pressure (VGF, 2-pos or modulating): 100 psi
- Maximum steam pressure (V5011, 2-pos): 15 psi
- Stem travel: 1.5"
- Rangeability: 50:1
- Leakage < 0.05% of Cv
- Body material: Cast iron
- Body trim: Stainless steel stem, brass seat (V5011/13), stainless steel seat (VGF)



Actuator Features		Non-fail Safe	
Actuator O.S. Number		ML7421B1023	ML6421B1040
Power Supply		24 Vac	24 Vac
Cycle Rate		60 Hz	60 Hz
Actuator Stem Force (lbs.)		404	404
Control (0)2-10 Vdc		•	
4-20 mA (* 500 Ohm Resistor)		•*	
Floating			•
Two-Position SPDT			•
Fail Safe Action		Stay in Place	Stay in Place
Normal Position (no signal) (field configurable)		Stem Up	Stem Up
Actuator Stroke (inches)		1.5	1.5
Stroke Timing (seconds)		175	175
Aux Switch 2 x SPDT (24 Vac) (add-on)		43191680-102	43191680-102
Feedback 1 x 220 Ohm Potentiometer (add-on)			43191679-102
2-10 Vdc (built in)		•	

2-Way Water & Steam Valves

Valve Size (inches)	Cv	Valve Type	Max Static Water Pressure	ANSI Class	Max Steam Pressure	Flow Characteristic	Valve Action	Valve OS Number	Close-off Pressure		
4"	160	Standard	250 psi	125	15 psi (2-position)	Equal %	Stem down to close	V5011A1858	29	29	
	160	Standard	250 psi		15 psi (2-position)		Stem up to close	V5011B1013	29	29	
	150	Pressure Balanced	175 psi		100 psi		Stem down to close	VGF21EP40	175	175	
	150	Standard	175 psi			VGF21ES40		34	34		
	150	Pressure Balanced	175 psi			VGF21LP40		175	175		
	155	Standard	175 psi			VGF21LS40		34	34		
	155		400 psi		250	VGF22ES40	34	34			
250	250 psi		125	Equal %	Stem up to close	V5011A1882	18	18			
250	250 psi	15 psi (2-position)				V5011B1047	18	18			
285	Pressure Balanced	175 psi				100 psi	Stem down to close	VGF21EP50	175	175	
285	Standard	175 psi		VGF21ES50	13			13			
320	Pressure Balanced	175 psi		VGF21LP50	175			175			
320	Standard	175 psi		VGF21LS50	13			13			
320		400 psi		250	VGF22ES50	13	13				
360		250 psi	125	Equal %	Stem up to close	V5011A1916	12	12			
360	250 psi	15 psi (2-position)				V5011B1070	12	12			
365	Pressure Balanced	175 psi				100 psi	Stem down to close	VGF21EP60	175	175	
365	Standard	175 psi		VGF21ES60	13			13			
370	Pressure Balanced	175 psi		VGF21LP60	175			175			
370	Standard	175 psi		VGF21LS60	13			13			
370	Standard	400 psi		250	Equal %	VGF22ES60	13	13			
4"	160	Mixing	250 psi	125	N/A	Constant Total	Stem up closes A-AB	V5013B1029	29	29	
	160	Diverting	250 psi			Constant Total	Stem up closes B-AB	V5013C1027	29	29	
	150	Mixing	175 psi			Equal % A-AB	Stem up closes A-AB	VGF31EM40	34	34	
	160	Diverting	175 psi			Linear, Constant Total	Stem up closes B-AB	VGF31LD40	34	34	
	170	Mixing	400 psi			250	Equal % A-AB	Stem up closes A-AB	VGF32EM40	34	34
	160	Diverting	400 psi			250	Linear, Constant Total	Stem up closes B-AB	VGF32LD40	34	34
5"	250	Mixing	250 psi	125	N/A	Constant Total	Stem up closes A-AB	V5013B1037	18	18	
	250	Diverting	250 psi			Constant Total	Stem up closes B-AB	V5013C1035	18	18	
	320	Mixing	175 psi			Equal % A-AB	Stem up closes A-AB	VGF31EM50	13	13	
	285	Diverting	175 psi			Linear, Constant Total	Stem up closes B-AB	VGF31LD50	13	13	
	320	Mixing	400 psi			250	Equal % A-AB	Stem up closes A-AB	VGF32EM50	13	13
	285	Diverting	400 psi			250	Linear, Constant Total	Stem up closes B-AB	VGF32LD50	13	13
6"	360	Mixing	250 psi	125	N/A	Constant Total	Stem up closes A-AB	V5013B1045	12	12	
	360	Diverting	250 psi			Constant Total	Stem up closes B-AB	V5013C1043	12	12	
	370	Mixing	175 psi			Equal % A-AB	Stem up closes A-AB	VGF31EM60	13	13	
	380	Diverting	175 psi			Linear, Constant Total	Stem up closes B-AB	VGF31LD60	13	13	
	370	Mixing	400 psi			250	Equal % A-AB	Stem up closes A-AB	VGF32EM60	13	13
	380	Diverting	400 psi			250	Linear, Constant Total	Stem up closes B-AB	VGF32LD60	13	13

Flanged Cage Valves 2½"- 6"

The V5051 series advantage lies in its ability to perform like a globe valve while achieving high close-off pressures with a single spring return actuator. This premium valve delivers a high close-off using a single spring return actuator on all valves up to 6". It is highly suitable for large steam applications.

Common Features

- Pressure balanced design for high close-off
- Close-off pressure = Maximum differential pressure
- ANSI body class 125
- Stem travel 1.5"
- Body material: Cast iron
- Body trim: Stainless steel (V5051A3xxx)
- Leakage: 0.01% Cv 2.5"-4" and 0.03% Cv 5"-6"
- Max static water pressure: 150 psi
- Max static steam pressure: 55 psi
- Flow characteristic: Modified linear

Q5020C1009 Required



Actuator Features	Non-fail Safe		Fail Safe		
Actuator O.S. Number	MN6120A1002 MN6120A1200	MN7220A2007 MN7220A2205	MS7520A2007 MS7520A2205 MS7520H2208	MS8120A1007 MS8120A1205	MN4120A1001 MS4120A1209
Power Supply	24Vac	24Vac	24Vac	24Vac	100-250Vac
Cycle Rate	50/60Hz	50/60Hz	50/60Hz	50/60Hz	60Hz
Actuator Torque (lbs.)	175	175	175	175	175
Control (0)2-10 Vdc		•	•		
4-20 mA (* 500 Ohm Resistor)		•*	•*		
Floating	•	•	•		
Two-Position SPDT	•	•	•		
Two-Position SPST				•	•
Fail Safe Action	Stay-in-Place	Stay-in-Place	Open/Closed	Open/Closed	Open/Closed
Normal Position (no signal) (field configurable)	Stem Up	Stem Up	Stem Up	Stem Up	Stem Up
Actuator Stroke (inches)	95°	95°	95°	95°	95°
Stroke Timing (seconds)	95	95	90	90	90
Aux Switch 2 x SPDT (built in)	0 / 2	0 / 2	0 / 2 / 2	0 / 2	0 / 2
2 x SPDT (add-on)	SW2-US	SW2-US	SW2-US	SW2-US	SW2-US
Feedback 2-10 Vdc (built in)		•	•		

Valve Size (inches)	Cv	Max Static Water Pressure	ANSI Class	Valve Action	Valve OS Number	Close-off Pressure				
2.5	75	150	125	Stem down to close	V5051A3004	150	150	150	150	150
3	116	150	125	Stem down to close	V5051A3012	150	150	150	150	150
4	178	150	125	Stem down to close	V5051A3020	150	150	150	150	150
5	318	150	125	Stem down to close	V5051A3038	150	150	150	150	150
6	390	150	125	Stem down to close	V5051A3046	150	150	150	150	150

2-Way Water & Steam Valves

GLOBE VALVES

Butterfly Valves

2-Way Electrically-Actuated Control Butterfly Valves

Honeywell Butterfly Valves family (VFF) offers options in sizes 2" to 20", highlighted with an industry unique tandem mount using Honeywell direct coupled actuators on valves up to 8" size.

Common Features

- Honeywell direct coupled actuators up to 8" size
- Maximum static pressure 175 psi at 250°F
- Body style: lugged butterfly valve, full-cut or under-cut disc
- ANSI 125/150 flanged connections
- Bubble-tight ANSI class VI seat leakage at rated close-off
- Heaters built into NEMA 4X and NEMA 6 actuators
- Controlled media: Water or glycol solutions up to 50% concentration
- Flow characteristics: Equal percentage from 20°-60° stem rotation, modified linear over full stroke
- Normally closed configuration (field configurable)



Actuator Features	
	Floating
Actuator O.S. Number	MN6134A1003
	NEMA 2
Power Supply	24 Vac
Cycle Rate	50 / 60 Hz
Actuator Torque	lb.-in. (* tandem mount)
Control	(0)2-10 Vdc
	4-20 mA
	Floating
	2-Position
Fail Safe Action	Stay in Place
Normal Position	Configurable
Aux Switch	Built in
	Add-On
Feedback	Built in
Manual Override	
Conduit Connection	
Waterproof	
Corrosion-resistant	
Anti-condensate heater	

Valve Size (inches)	Close-off (psid)	Cv [kvs] @ 60°	Cv [kvs] @ 90°	
2 in.	175	61	144	VFF2FW1Y2A
	250	53	125	
2.5 in.	175	107	282	VFF2GW1Y2A
	250	93	244	
3 in.	175	154	461	VFF2HW1Y2A
	250	133	399	
4 in.	50	274	841	VFF2JV1Y2A
	175	237	727	VFF2JW1Y2A
5 in.	250			
	50	428	1376	VFF2KV1Y2A*
6 in.	175	370	1190	VFF2KW1Y2A
	250			
8 in.	50	567	1850	VFF2LW1Y2A**
	175	490	1600	VFF2LW1Y2A
10 in.	250			
	50	1081	3316	VFF2MV1Y2A
12 in.	175	935	2868	
	250			
14 in.	50	1710	5430	
	175	1479	4697	
16 in.	250			
	50	2563	8077	
18 in.	175	2217	6987	
	250			
20 in.	50	3384	10538	
	150	2927	9115	
22 in.	250			
	50	4483	13966	
24 in.	150	3878	12081	
	250			
26 in.	50	5736	17214	
	150	4962	14890	
28 in.	250			
	50	7144	22339	
30 in.	150	6180	19323	
	250			

* Chilled water service only.

** Use full cut valves – requires same actuator torque.
Butterfly valves come with factory-fitted actuators.

Non-spring Return					Spring Return, N.C.(default)/N.O.			Valve Only End-of-line Service		
Floating		Modulating			2-Position		Modulating			
Industrial Actuators		MN7234A2008	Industrial Actuators		MS8120A1007	MS4120A1001	MS7520A2007		Lever	Gear
NEMA 4X	NEMA 6	NEMA 2	NEMA 4X	NEMA 6	NEMA 2	NEMA 2	NEMA 2			
120 Vac	120 Vac	24 Vac	120 Vac	120 Vac	24 Vac	100-250 Vac	24 Vac			
50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	60 Hz	60 Hz	50 / 60 Hz			
300 - 6,500	8,850 - 30,000	300 - 600*	300 - 6,500	8,850 - 30,000	175 - 350*	175 - 350*	175 - 350*			
		•	•	•			•			
		•	•	•			•			
120 Vac	120 Vac	24 Vac					24 Vac			
•	•	•			•	•	•			
Stay in Place	Stay in Place	Stay in Place	Stay in Place	Stay in Place	Open / Closed	Open / Closed	Open / Closed			
Open / Closed	Open / Closed	Open / Closed	Open / Closed	Open / Closed	Open / Closed	Open / Closed	Open / Closed			
2 x SPST	2 x SPST		2 x SPST	2 x SPST						
		SW2-US			SW2-US	SW2-US	SW2-US			
10 kOhm	2-10 Vdc	2-10 Vdc	10 kOhm	2-10 Vdc			2-10 Vdc			
•	•		•	•				•		
•	•	•	•	•	•	•	•			
•	•		•	•						
•	•		•	•						
•	•		•	•						
Resilient-seat, Nylon 11-coated Disk, Lugged Fittings										
VFF2FW1YXA		VFF2FW1Y2B	VFF2FW1YXB		VFF2FW1Y2C	VFF2FW1Y2E	VFF2FW1Y2D			
								VFF2FW2YLX	VFF2FW2YGX	
VFF2GW1YXA		VFF2GW1Y2B	VFF2GW1YXB		VFF2GW1Y2C	VFF2GW1Y2E	VFF2GW1Y2D			
								VFF2GW2YLX	VFF2GW2YGX	
VFF2HW1YXA		VFF2HW1Y2B	VFF2HW1YXB		VFF2HW1Y2C	VFF2HW1Y2E	VFF2HW1Y2D			
								VFF2HW2YLX	VFF2HW2YGX	
VFF2JV1YXA		VFF2JV1Y2B	VFF2JV1YXB		VFF2JV1Y2C	VFF2JV1Y2E	VFF2JV1Y2D			
VFF2JW1YXA		VFF2JW1Y2B	VFF2JW1YXB					VFF2JW2YLX	VFF2JW2YGX	
VFF2KV1YXA		VFF2KV1Y2B*	VFF2KV1YXB		VFF2KV1Y2C*	VFF2KV1Y2E*	VFF2KV1Y2D*			
VFF2KW1YXA		VFF2KW1Y2B	VFF2KW1YXB							
								VFF2KW2YLX	VFF2KW2YGX	
VFF2LV1YXA		VFF2LV1Y2B**	VFF2LV1YXB							
VFF2LW1YXA		VFF2LW1Y2B	VFF2LW1YXB							
								VFF2LW2YLX	VFF2LW2YGX	
VFF2MV1YXA		VFF2MV1Y2B	VFF2MV1YXB							
VFF2MW1YXA			VFF2MW1YXB							
								VFF2MW2YLX	VFF2MW2YGX	
VFF2NV1YXA			VFF2NV1YXB							
VFF2NW1YXA			VFF2NW1YXB							
								VFF2NW2YLX	VFF2NW2YGX	
VFF2PV1YXA			VFF2PV1YXB							
VFF2PW1YXA			VFF2PW1YXB							
								VFF2PW2YLX	VFF2PW2YGX	
VFF2RV1YXA			VFF2RV1YXB							
VFF2RW1YXA			VFF2RW1YXB						VFF2RW2YGX	
VFF2SV1YXA			VFF2SV1YXB							
	VFF2SW1Y4A			VFF2SW1Y4B						
									VFF2SW2YGX	
VFF2TV1YXA			VFF2TV1YXB							
	VFF2TW1Y4A			VFF2TW1Y4B						
									VFF2TW2YGX	
	VFF2UV1Y4A			VFF2UV1Y4B						
	VFF2UW1Y4A			VFF2UW1Y4B						
									VFF2UW2YGX	

Butterfly Valves

3-Way Electrically-Actuated Control Butterfly Valves

Common Features

- VFF3 – A-B-AB porting, full-cut or under-cut disc
- Honeywell direct coupled actuators up to 6" size
- Mixing or diverting control
- Standard right-angle cast-iron T-pipe
- A-port configured to closed position at factory
- Porting pattern field-configurable with valve linkage adjustment



Actuator Features	
	Floating
Actuator O.S. Number	MN6134A1003
	NEMA 2
Power Supply	24 Vac
Cycle Rate	50 / 60 Hz
Actuator Torque	lb.-in. (* tandem mount) 300 - 600*
Control	(0)2-10 Vdc
	4-20 mA
	Floating 24 Vac
	2-Position •
Fail Safe Action	Stay in Place
Normal Position	Configurable Open / Closed
Aux Switch	Built in
	Add-On SW2-US
Feedback	Built in
Manual Override	
Conduit Connection	•
Waterproof	
Corrosion-resistant	
Anti-condensate heater	

Valve Size (inches)	Close-off (psid)	Cv [kvs] @ 60°	Cv [kvs] @ 90°	
2	175	61	144	VFF3FW1Y2A
		53	125	
2.5	175	107	282	VFF3GW1Y2A
		93	244	
3	175	154	461	VFF3GW1Y2A
		133	399	
4	50	274	841	VFF3JV1Y2A
	175	237	727	VFF3JW1Y2A
5	50	428	1376	VFF3KW1Y2A*
	175	370	1190	VFF3KW1Y2A
6	50	567	1850	VFF3LV1Y2A
	175	490	1600	
8	50	1081	3316	
	175	935	2868	
10	50	1710	5430	
	175	1479	4697	
12	50	2563	8077	
	175	2217	6987	
14	50	3384	10538	
	150	2927	9115	
16	50	4483	13966	
	150	3878	12081	
18	50	5736	17214	
	150	4962	14890	
20	50	7144	22339	
	150	6180	19323	

* Chilled water service only.

** Use full cut valves – requires same actuator torque.
Butterfly valves come with factory-fitted actuators.

Non-spring Return					Spring Return, N.C.(default)/N.O.			Valve Only End-of-line Service	
Floating		Modulating			2-Position		Modulating		
Industrial Actuators		MN7234A2008	Industrial Actuators		MS8120A1007	MS4120A1001	MS7520A2007	Lever	Gear
NEMA 4X	NEMA 6	NEMA 2	NEMA 4X	NEMA 6	NEMA 2	NEMA 2	NEMA 2		
120 Vac	120 Vac	24 Vac	120 Vac	120 Vac	24 Vac	100-250 Vac	24 Vac		
50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	60 Hz	60 Hz	50 / 60 Hz		
300 - 6,500	8,850 - 30,000	300 - 600*	300 - 6,500	8,850 - 30,000	175 - 350*	175 - 350*	175 - 350*		
		•	•	•			•		
		•	•	•			•		
120 Vac	120 Vac	24 Vac					24 Vac		
•	•	•			•	•	•		
Stay in Place	Stay in Place	Stay in Place	Stay in Place	Stay in Place	Open / Closed	Open / Closed	Open / Closed		
Open / Closed	Open / Closed	Open / Closed	Open / Closed	Open / Closed	Open / Closed	Open / Closed	Open / Closed		
2 x SPST	2 x SPST		2 x SPST	2 x SPST					
		SW2-US			SW2-US	SW2-US	SW2-US		
10 kOhm	2-10 Vdc	2-10 Vdc	10 kOhm	2-10 Vdc			2-10 Vdc		
•	•		•	•					
•	•	•	•	•	•	•	•		
•	•		•	•					
•	•		•	•					
•	•		•	•					
Resilient-seat, Nylon 11-coated Disks, Lugged Fittings, A-B-AB (Globe Valve) Porting								Use a pair of 2-way valves with standard flanged Tee	
VFF3FW1YXA		VFF3FW1Y2B	VFF3FW1YXB		VFF3FW1Y2C	VFF3FW1Y2E	VFF3FW1Y2D		
VFF3GW1YXA		VFF3GW1Y2B	VFF3GW1YXB		VFF3GW1Y2C	VFF3GW1Y2E	VFF3GW1Y2D		
VFF3HW1YXA		VFF3HW1Y2B	VFF3HW1YXB		VFF3HW1Y2C	VFF3HW1Y2E	VFF3HW1Y2D		
VFF3JV1YXA		VFF3JV1Y2B	VFF3JV1YXB		VFF3JV1Y2C	VFF3JV1Y2E	VFF3JV1Y2D		
VFF3JW1YXA		VFF3JW1Y2B	VFF3JW1YXB						
VFF3KV1YXA		VFF3KW1Y2B*	VFF3KV1YXB		VFF3KV1Y2C**	VFF3KV1Y2E**	VFF3KV1Y2D**		
VFF3KW1YXA		VFF3KW1Y2B	VFF3KW1YXB						
VFF3LV1YXA		VFF3LV1Y2B	VFF3LV1YXB						
VFF3LW1YXA			VFF3LW1YXB						
VFF3MV1YXA			VFF3MV1YXB						
VFF3MW1YXA			VFF3MW1YXB						
VFF3NV1YXA			VFF3NV1YXB						
VFF3NW1YXA			VFF3NW1YXB						
VFF3PV1YXA			VFF3PV1YXB						
VFF3PW1YXA			VFF3PW1YXB						
VFF3RV1YXA	VFF3RV1Y4A		VFF3RV1YXB	VFF3RV1Y4B					
	VFF3RW1Y4A			VFF3RW1Y4B					
VFF3SV1YXA	VFF3SV1Y4A		VFF3SV1YXB	VFF3SV1Y4B					
	VFF3SW1Y4A			VFF3SW1Y4B					
	VFF3TV1Y4A			VFF3TV1Y4B					
	VFF3TW1Y4A			VFF3TW1Y4B					
	VFF3UV1Y4A			VFF3UV1Y4B					
	VFF3UW1Y4A			VFF3UW1Y4B					

Use a pair of
2-way valves
with standard
flanged Tee

Butterfly Valves

3-Way Electrically-Actuated Control Butterfly Valves

Common Features

- VFF6 – A-AB-B porting, full-cut or under-cut disc
- Honeywell direct coupled actuators up to 6" size
- Mixing or diverting control
- Standard right-angle cast-iron T-pipe
- A-port configured to closed position at factory
- Porting pattern field-configurable with valve linkage adjustment



Actuator Features	
	Floating
Actuator O.S. Number	MN6134A1003
	NEMA 2
Power Supply	24 Vac
Cycle Rate	50 / 60 Hz
Actuator Torque	lb.-in. (* tandem mount) 300 - 600*
Control	(0)2-10 Vdc
	4-20 mA
	Floating 24 Vac
	2-Position •
Fail Safe Action	Stay in Place
Normal Position	Configurable Open / Closed
Aux Switch	Built in
	Add-On SW2-US
Feedback	Built in
Manual Override	
Conduit Connection	•
Waterproof	
Corrosion-resistant	
Anti-condensate Heater	

Valve Size (inches)	Close-off (psid)	Cv [kvs] @ 60°	Cv [kvs] @ 90°	
2	175	61	144	VFF6FW1Y2A
		53	125	
2.5	175	107	282	VFF6GW1Y2A
		93	244	
3	175	154	461	VFF6HW1Y2A
		133	399	
4	50	274	841	VFF6JV1Y2A
	175	237	727	VFF6JW1Y2A
5	50	428	1376	VFF6KW1Y2A*
	175	370	1190	VFF6KW1Y2A
6	50	567	1850	VFF6LV1Y2A
	175	490	1600	
8	50	1081	3316	
	175	935	2868	
10	50	1710	5430	
	175	1479	4697	
12	50	2563	8077	
	175	2217	6987	
14	50	3384	10538	
	150	2927	9115	
16	50	4483	13966	
	150	3878	12081	
18	50	5736	17214	
	150	4962	14890	
20	50	7144	22339	
	150	6180	19323	

* Chilled water service only.

** Use full cut valves – requires same actuator torque.
Butterfly valves come with factory-fitted actuators.

Non-spring Return					Spring Return, N.C.(default)/N.O.			Valve Only End-of-line Service	
Floating		Modulating			2-Position		Modulating		
Industrial Actuators		MN7234A2008	Industrial Actuators		MS8120A1007	MS4120A1001	MS7520A2007	Lever	Gear
NEMA 4X	NEMA 6	NEMA 2	NEMA 4X	NEMA 6	NEMA 2	NEMA 2	NEMA 2		
120 Vac	120 Vac	24 Vac	120 Vac	120 Vac	24 Vac	100-250 Vac	24 Vac		
50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	60 Hz	60 Hz	50 / 60 Hz		
300 - 6,500	8,850 - 30,000	300 - 600*	300 - 6,500	8,850 - 30,000	175 - 350*	175 - 350*	175 - 350*		
		•	•	•			•		
		•	•	•			•		
120 Vac	120 Vac	24 Vac					24 Vac		
•	•	•			•	•	•		
Stay in Place	Stay in Place	Stay in Place	Stay in Place	Stay in Place	Open / Closed	Open / Closed	Open / Closed		
Open / Closed	Open / Closed	Open / Closed	Open / Closed	Open / Closed	Open / Closed	Open / Closed	Open / Closed		
2 x SPST	2 x SPST		2 x SPST	2 x SPST					
		SW2-US			SW2-US	SW2-US	SW2-US		
10 kOhm	2-10 Vdc	2-10 Vdc	10 kOhm	2-10 Vdc			2-10 Vdc		
•	•		•	•					
•	•	•	•	•	•	•	•		
•	•		•	•					
•	•		•	•					
•	•		•	•					
Resilient-seat, Nylon 11-coated Disks, Lugged Fittings, A-AB-B Porting									
VFF6FW1YXA		VFF6FW1Y2B	VFF6FW1YXB		VFF6FW1Y2C	VFF6FW1Y2E	VFF6FW1Y2D		
VFF6GW1YXA		VFF6GW1Y2B	VFF6GW1YXB		VFF6GW1Y2C	VFF6GW1Y2E	VFF6GW1Y2D		
VFF6HW1YXA		VFF6HW1Y2B	VFF6HW1YXB		VFF6HW1Y2C	VFF6HW1Y2E	VFF6HW1Y2D		
VFF6JV1YXA		VFF6JV1Y2B	VFF6JV1YXB		VFF6JV1Y2C	VFF6JV1Y2E	VFF6JV1Y2D		
VFF6JW1YXA		VFF6JW1Y2B	VFF6JW1YXB						
VFF6KV1YXA		VFF6KV1Y2B*	VFF6KV1YXB		VFF6KV1Y2C**	VFF6KV1Y2E**	VFF6KV1Y2D**		
VFF6KW1YXA		VFF6KW1Y2B	VFF6KW1YXB						
VFF6LV1YXA		VFF6LV1Y2B	VFF6LV1YXB						
VFF6LW1YXA			VFF6LW1YXB						
VFF6MV1YXA			VFF6MV1YXB						
VFF6MW1YXA			VFF6MW1YXB						
VFF6NV1YXA			VFF6NV1YXB						
VFF6NW1YXA			VFF6NW1YXB						
VFF6PV1YXA			VFF6PV1YXB						
VFF6PW1YXA			VFF6PW1YXB						
VFF6RV1YXA	VFF6RV1Y4A		VFF6RV1YXB	VFF6RV1Y4B					
	VFF6RW1Y4A			VFF6RW1Y4B					
VFF6SV1YXA	VFF6SV1Y4A		VFF6SV1YXB	VFF6SV1Y4B					
	VFF6SW1Y4A			VFF6SW1Y4B					
	VFF6TV1Y4A			VFF6TV1Y4B					
	VFF6TW1Y4A			VFF6TW1Y4B					
	VFF6UV1Y4A			VFF6UV1Y4B					
	VFF6UW1Y4A			VFF6UW1Y4B					

Use a pair of
2-way valves
with standard
flanged Tee

Butterfly Valves

2-Way Pneumatically-Actuated Control Butterfly Valves

Common Features

Honeywell offers a wide selection of pneumatic actuators:

- 20 psi spring return (up to 10" size)
- 80 psi spring return
- 80 psi double acting bi-directional

Configurable with accessories:

- Positioner
- Electro-pneumatic positioner (80 psi only)
- Electro-pneumatic solenoid (80 psi only)
- VFF1 configured normally open and VFF2 normally closed at factory for spring return actuators
- Bi-directional actuator 175 psid close-off on all sizes with full cut disc (2-way only)
- Normally-open configuration (VFF1 spring return)
- Normally-closed configuration (VFF2 spring return)



Actuator Features		20 psi Actuator	
Actuator		8-13 spring	Positioner
Power Supply			
Cycle Rate			
Control		•	•
Modulating Pneumatic			
2-Position			
4-20 mA			
Manual Override			
Conduit Connection			
Waterproof			
Fail Safe		•	•

Valve Size (inches)	Close-off (psid)	Cv [kvs] @ 60°	Cv [kvs] @ 90°		
2	175	61	144	VFF1FW1Y8P	VFF1FW1YPP
2.5	175	107	282	VFF1GW1Y8P	VFF1GW1YPP
3	175	154	461	VFF1HW1Y8P	VFF1HW1YPP
4	50	274	841	VFF1JV1Y8P	VFF1JV1YPP
	175	237	727	VFF1JW1Y8P	VFF1JW1YPP
5	50	428	1376	VFF1KV1Y8P	VFF1KV1YPP
	175	370	1190	VFF1KW1Y8P	VFF1KW1YPP
6	50	567	1850	VFF1KW1Y8P**	VFF1KW1YPP**
	175	490	1600	VFF1KW1Y8P	VFF1KW1YPP
8	50	1081	3316	VFF1KV1Y8P	VFF1KV1YPP
	175	935	2868	VFF1KW1Y8P	VFF1KW1YPP
10	50	1710	5430	VFF1KV1Y8P	VFF1KV1YPP
	175	1479	4697		
12	50	2563	8077		
	175	2217	6987		
14	50	3384	10538		
	150*	2927	9115		
16	50	4483	13966		
	150*	3878	12081		
18	50	5736	17214		
	150*	4962	14890		
20	50	7144	22339		
	150*	6180	19323		
Valve Size (inches)	Close-off (psid)	Cv [kvs] @ 60°	Cv [kvs] @ 90°		
2	175	61	144	VFF2FW1Y8P	VFF2FW1YPP
2.5	175	107	282	VFF2GW1Y8P	VFF2GW1YPP
3	175	154	461	VFF2HW1Y8P	VFF2HW1YPP
4	50	274	841	VFF2JV1Y8P	VFF2JV1YPP
	175	237	727	VFF2JW1Y8P	VFF2JW1YPP
5	50	428	1376	VFF2KV1Y8P	VFF2KV1YPP
	175	370	1190	VFF2KW1Y8P	VFF2KW1YPP
6	50	567	1850	VFF2KW1Y8P**	VFF2KW1YPP**
	175	490	1600	VFF2KW1Y8P	VFF2KW1YPP
8	50	1081	3316	VFF2KV1Y8P	VFF2KV1YPP
	175	935	2868	VFF2KW1Y8P	VFF2KW1YPP
10	50	1710	5430	VFF2KV1Y8P	VFF2KV1YPP
	175	1479	4697		
12	50	2563	8077		
	175	2217	6987		
14	50	3384	10538		
	150*	2927	9115		
16	50	4483	13966		
	150*	3878	12081		
18	50	5736	17214		
	150*	4962	14890		
20	50	7144	22339		
	150*	6180	19323		

* Full cut valves with bi-directional pneumatic actuators feature 175 psi close-off in all body sizes
**Use full cut, 175psid close-off valves - No under-cut, 50psid close-off valve available

Spring Return Fail Safe					Non-spring Return (Bidirectional)				
80 psi Actuator									
Standard	E-P Solenoid		Positioner	E-P Positioner	Standard	E-P Solenoid		Positioner	E-P Positioner
	24 Vac	120 Vac		24 Vac		24 Vac	120 VAc		24 Vac
	50 / 60 Hz	50 / 60 Hz		50 / 60 Hz		50 / 60 Hz	50 / 60 Hz		50 / 60 Hz
•			•		•			•	
•	•	•				•	•		
				•					•
•					•				
	•	•		•		•	•		•
				•					•
•	•	•	•	•					
Resilient-seat, Nylon 11-coated Disk, Lugged Fittings, Normally Open									
VFF1FW1YXS	VFF1FW1YCS	VFF1FW1YES	VFF1FW1YPS	VFF1FW1YDS	Use VFF2 models for Bi-directional pneumatic operation				
VFF1GW1YXS	VFF1GW1YCS	VFF1GW1YES	VFF1GW1YPS	VFF1GW1YDS					
VFF1HW1YXS	VFF1HW1YCS	VFF1HW1YES	VFF1HW1YPS	VFF1HW1YDS					
VFF1JV1YXS	VFF1JV1YCS	VFF1JV1YES	VFF1JV1YPS	VFF1JV1YDS					
VFF1JW1YXS	VFF1JW1YCS	VFF1JW1YES	VFF1JW1YPS	VFF1JW1YDS					
VFF1KV1YXS	VFF1KV1YCS	VFF1KV1YES	VFF1KV1YPS	VFF1KV1YDS					
VFF1KW1YXS	VFF1KW1YCS	VFF1KW1YES	VFF1KW1YPS	VFF1KW1YDS					
VFF1LV1YXS	VFF1LV1YCS	VFF1LV1YES	VFF1LV1YPS	VFF1LV1YDS					
VFF1LW1YXS	VFF1LW1YCS	VFF1LW1YES	VFF1LW1YPS	VFF1LW1YDS					
VFF1MV1YXS	VFF1MV1YCS	VFF1MV1YES	VFF1MV1YPS	VFF1MV1YDS					
VFF1MW1YXS	VFF1MW1YCS	VFF1MW1YES	VFF1MW1YPS	VFF1MW1YDS					
VFF1NV1YXS	VFF1NV1YCS	VFF1NV1YES	VFF1NV1YPS	VFF1NV1YDS					
VFF1NW1YXS	VFF1NW1YCS	VFF1NW1YES	VFF1NW1YPS	VFF1NW1YDS					
VFF1PV1YXS	VFF1PV1YCS	VFF1PV1YES	VFF1PV1YPS	VFF1PV1YDS					
VFF1PW1YXS	VFF1PW1YCS	VFF1PW1YES	VFF1PW1YPS	VFF1PW1YDS					
VFF1RV1YXS	VFF1RV1YCS	VFF1RV1YES	VFF1RV1YPS	VFF1RV1YDS					
VFF1RW1YXS	VFF1RW1YCS	VFF1RW1YES	VFF1RW1YPS	VFF1RW1YDS					
VFF1SV1YXS	VFF1SV1YCS	VFF1SV1YES	VFF1SV1YPS	VFF1SV1YDS					
VFF1SW1YXS	VFF1SW1YCS	VFF1SW1YES	VFF1SW1YPS	VFF1SW1YDS					
VFF1TV1YXS	VFF1TV1YCS	VFF1TV1YES	VFF1TV1YPS	VFF1TV1YDS					
VFF1TW1YXS	VFF1TW1YCS	VFF1TW1YES	VFF1TW1YPS	VFF1TW1YDS					
VFF1UV1YXS	VFF1UV1YCS	VFF1UV1YES	VFF1UV1YPS	VFF1UV1YDS					
VFF1UW1YXS	VFF1UW1YCS	VFF1UW1YES	VFF1UW1YPS	VFF1UW1YDS					
Resilient-seat, Nylon 11-coated Disk, Lugged Fittings, Normally Closed									
VFF2FW1YXS	VFF2FW1YCS	VFF2FW1YES	VFF2FW1YPS	VFF2FW1YDS	VFF2FW1YXR	VFF2FW1YCR	VFF2FW1YER	VFF2FW1YPR	VFF2FW1YDR
VFF2GW1YXS	VFF2GW1YCS	VFF2GW1YES	VFF2GW1YPS	VFF2GW1YDS	VFF2GW1YXR	VFF2GW1YCR	VFF2GW1YER	VFF2GW1YPR	VFF2GW1YDR
VFF2HW1YXS	VFF2HW1YCS	VFF2HW1YES	VFF2HW1YPS	VFF2HW1YDS	VFF2HW1YXR	VFF2HW1YCR	VFF2HW1YER	VFF2HW1YPR	VFF2HW1YDR
VFF2JV1YXS	VFF2JV1YCS	VFF2JV1YES	VFF2JV1YPS	VFF2JV1YDS	VFF2JV1YXR	VFF2JV1YCR	VFF2JV1YER	VFF2JV1YPR	VFF2JV1YDR
VFF2JW1YXS	VFF2JW1YCS	VFF2JW1YES	VFF2JW1YPS	VFF2JW1YDS	VFF2JW1YXR	VFF2JW1YCR	VFF2JW1YER	VFF2JW1YPR	VFF2JW1YDR
VFF2KV1YXS	VFF2KV1YCS	VFF2KV1YES	VFF2KV1YPS	VFF2KV1YDS	VFF2KV1YXR	VFF2KV1YCR	VFF2KV1YER	VFF2KV1YPR	VFF2KV1YDR
VFF2KW1YXS	VFF2KW1YCS	VFF2KW1YES	VFF2KW1YPS	VFF2KW1YDS	VFF2KW1YXR	VFF2KW1YCR	VFF2KW1YER	VFF2KW1YPR	VFF2KW1YDR
VFF2LV1YXS	VFF2LV1YCS	VFF2LV1YES	VFF2LV1YPS	VFF2LV1YDS	VFF2LV1YXR	VFF2LV1YCR	VFF2LV1YER	VFF2LV1YPR	VFF2LV1YDR
VFF2LW1YXS	VFF2LW1YCS	VFF2LW1YES	VFF2LW1YPS	VFF2LW1YDS	VFF2LW1YXR	VFF2LW1YCR	VFF2LW1YER	VFF2LW1YPR	VFF2LW1YDR
VFF2MV1YXS	VFF2MV1YCS	VFF2MV1YES	VFF2MV1YPS	VFF2MV1YDS	VFF2MV1YXR	VFF2MV1YCR	VFF2MV1YER	VFF2MV1YPR	VFF2MV1YDR
VFF2MW1YXS	VFF2MW1YCS	VFF2MW1YES	VFF2MW1YPS	VFF2MW1YDS	VFF2MW1YXR	VFF2MW1YCR	VFF2MW1YER	VFF2MW1YPR	VFF2MW1YDR
VFF2NV1YXS	VFF2NV1YCS	VFF2NV1YES	VFF2NV1YPS	VFF2NV1YDS	VFF2NV1YXR	VFF2NV1YCR	VFF2NV1YER	VFF2NV1YPR	VFF2NV1YDR
VFF2NW1YXS	VFF2NW1YCS	VFF2NW1YES	VFF2NW1YPS	VFF2NW1YDS	VFF2NW1YXR	VFF2NW1YCR	VFF2NW1YER	VFF2NW1YPR	VFF2NW1YDR
VFF2PV1YXS	VFF2PV1YCS	VFF2PV1YES	VFF2PV1YPS	VFF2PV1YDS	VFF2PV1YXR	VFF2PV1YCR	VFF2PV1YER	VFF2PV1YPR	VFF2PV1YDR
VFF2PW1YXS	VFF2PW1YCS	VFF2PW1YES	VFF2PW1YPS	VFF2PW1YDS	VFF2PW1YXR	VFF2PW1YCR	VFF2PW1YER	VFF2PW1YPR	VFF2PW1YDR
VFF2RV1YXS	VFF2RV1YCS	VFF2RV1YES	VFF2RV1YPS	VFF2RV1YDS	VFF2RV1YXR	VFF2RV1YCR	VFF2RV1YER	VFF2RV1YPR	VFF2RV1YDR
VFF2RW1YXS	VFF2RW1YCS	VFF2RW1YES	VFF2RW1YPS	VFF2RW1YDS	VFF2RW1YXR	VFF2RW1YCR	VFF2RW1YER	VFF2RW1YPR	VFF2RW1YDR
VFF2SV1YXS	VFF2SV1YCS	VFF2SV1YES	VFF2SV1YPS	VFF2SV1YDS	VFF2SV1YXR	VFF2SV1YCR	VFF2SV1YER	VFF2SV1YPR	VFF2SV1YDR
VFF2SW1YXS	VFF2SW1YCS	VFF2SW1YES	VFF2SW1YPS	VFF2SW1YDS	VFF2SW1YXR	VFF2SW1YCR	VFF2SW1YER	VFF2SW1YPR	VFF2SW1YDR
VFF2TV1YXS	VFF2TV1YCS	VFF2TV1YES	VFF2TV1YPS	VFF2TV1YDS	VFF2TV1YXR	VFF2TV1YCR	VFF2TV1YER	VFF2TV1YPR	VFF2TV1YDR
VFF2TW1YXS	VFF2TW1YCS	VFF2TW1YES	VFF2TW1YPS	VFF2TW1YDS	VFF2TW1YXR	VFF2TW1YCR	VFF2TW1YER	VFF2TW1YPR	VFF2TW1YDR
VFF2UV1YXS	VFF2UV1YCS	VFF2UV1YES	VFF2UV1YPS	VFF2UV1YDS	VFF2UV1YXR	VFF2UV1YCR	VFF2UV1YER	VFF2UV1YPR	VFF2UV1YDR
VFF2UW1YXS	VFF2UW1YCS	VFF2UW1YES	VFF2UW1YPS	VFF2UW1YDS	VFF2UW1YXR	VFF2UW1YCR	VFF2UW1YER	VFF2UW1YPR	VFF2UW1YDR

Butterfly Valves

3-Way Pneumatically-Actuated Control Butterfly Valves

Common Features

Honeywell offers a wide selection of pneumatic actuators:

- VFF3 – A-B-AB porting, full-cut or under-cut disc
- VFF6 – A-AB-B porting, full-cut or under-cut disc
- 20 psi spring return (up to 8" size)
- 80 psi spring return
- 80 psi double acting bi-directional
- Mixing or diverting control
- Standard right-angle cast-iron T-pipe
- A-port configured to closed position at factory
- Porting pattern field-configurable with valve linkage adjustment



Actuator Features			
Actuator		20 psi Actuator	
		8-13 spring	Positioner
Power Supply			
Cycle Rate			
Control	Modulating Pneumatic	•	•
	2-Position		
	4-20 mA		
Manual Override			
Conduit Connection			
Waterproof			
Fail Safe		•	•

Valve Size (inches)	Close-off (psid)	Cv [kvs] @ 60°	Cv [kvs] @ 90°		
2	175	61	144	VFF3FW1Y8P	VFF3FW1YPP
2.5	175	107	282	VFF3GW1Y8P	VFF3GW1YPP
3	175	154	461	VFF3HW1Y8P	VFF3HW1YPP
4	50	274	841	VFF3JV1Y8P	VFF3JV1YPP
	175	237	727	VFF3JW1Y8P	VFF3JW1YPP
5	50	428	1376	VFF3KW1Y8P*	VFF3KW1YPP*
	175	370	1190	VFF3KW1Y8P	VFF3KW1YPP
6	50	567	1850	VFF3KV1Y8P	VFF3KV1YPP
	175	490	1600	VFF3KW1Y8P	VFF3KW1YPP
8	50	1081	3316	VFF3KV1Y8P	VFF3KV1YPP
	175	935	2868		
10	50	1710	5430		
	175	1479	4697		
12	50	2563	8077		
	175	2217	6987		
14	50	3384	10538		
	150	2927	9115		
16	50	4483	13966		
	150	3878	12081		
18	50	5736	17214		
	150	4962	14890		
20	50	7144	22339		
	150	6180	19323		
Valve Size (inches)	Close-off (psid)	Cv [kvs] @ 60°	Cv [kvs] @ 90°		
2	175	61	144		
2.5	175	107	282		
3	175	154	461		
4	50	274	841		
	175	237	727		
5	50	428	1376		
	175	370	1190		
6	50	567	1850		
	175	490	1600		
8	50	1081	3316		
	175	935	2868		
10	50	1710	5430		
	175	1479	4697		
12	50	2563	8077		
	175	2217	6987		
14	50	3384	10538		
	150	2927	9115		
16	50	4483	13966		
	150	3878	12081		
18	50	5736	17214		
	150	4962	14890		
20	50	7144	22339		
	150	6180	19323		

*Use full cut, 175psid close-off valves - No under-cut, 50psid close-off valve available

Spring Return Fail Safe					Non-spring Return (Bidirectional)				
80 psi Actuator									
Standard	E-P Solenoid		Positioner	E-P Positioner	Standard	E-P Solenoid		Positioner	E-P Positioner
	24 Vac	120 Vac		24 Vac		24 Vac	120 VAc		24 Vac
	50 / 60 Hz	50 / 60 Hz		50 / 60 Hz		50 / 60 Hz	50 / 60 Hz		50 / 60 Hz
•			•		•			•	
	•	•				•	•		
				•					•
•				•	•				
	•	•		•		•	•		•
				•					•
•	•	•	•	•					
Resilient-seat, Nylon 11-coated Disks, Lugged Fittings, A-B-AB (Globe Valve) Porting									
VFF3FW1YXS	VFF3FW1YCS	VFF3FW1YES	VFF3FW1YPS	VFF3FW1YDS	VFF3FW1YXR	VFF3FW1YCR	VFF3FW1YER	VFF3FW1YPR	VFF3FW1YDR
VFF3GW1YXS	VFF3GW1YCS	VFF3GW1YES	VFF3GW1YPS	VFF3GW1YDS	VFF3GW1YXR	VFF3GW1YCR	VFF3GW1YER	VFF3GW1YPR	VFF3GW1YDR
VFF3HW1YXS	VFF3HW1YCS	VFF3HW1YES	VFF3HW1YPS	VFF3HW1YDS	VFF3HW1YXR	VFF3HW1YCR	VFF3HW1YER	VFF3HW1YPR	VFF3HW1YDR
VFF3JV1YXS	VFF3JV1YCS	VFF3JV1YES	VFF3JV1YPS	VFF3JV1YDS	VFF3JV1YXR	VFF3JV1YCR	VFF3JV1YER	VFF3JV1YPR	VFF3JV1YDR
VFF3JW1YXS	VFF3JW1YCS	VFF3JW1YES	VFF3JW1YPS	VFF3JW1YDS	VFF3JW1YXR	VFF3JW1YCR	VFF3JW1YER	VFF3JW1YPR	VFF3JW1YDR
VFF3KV1YXS	VFF3KV1YCS	VFF3KV1YES	VFF3KV1YPS	VFF3KV1YDS	VFF3KV1YXR	VFF3KV1YCR	VFF3KV1YER	VFF3KV1YPR	VFF3KV1YDR
VFF3KW1YXS	VFF3KW1YCS	VFF3KW1YES	VFF3KW1YPS	VFF3KW1YDS	VFF3KW1YXR	VFF3KW1YCR	VFF3KW1YER	VFF3KW1YPR	VFF3KW1YDR
VFF3LV1YXS	VFF3LV1YCS	VFF3LV1YES	VFF3LV1YPS	VFF3LV1YDS	VFF3LV1YXR	VFF3LV1YCR	VFF3LV1YER	VFF3LV1YPR	VFF3LV1YDR
VFF3LW1YXS	VFF3LW1YCS	VFF3LW1YES	VFF3LW1YPS	VFF3LW1YDS	VFF3LW1YXR	VFF3LW1YCR	VFF3LW1YER	VFF3LW1YPR	VFF3LW1YDR
VFF3MV1YXS	VFF3MV1YCS	VFF3MV1YES	VFF3MV1YPS	VFF3MV1YDS	VFF3MV1YXR	VFF3MV1YCR	VFF3MV1YER	VFF3MV1YPR	VFF3MV1YDR
VFF3MW1YXS	VFF3MW1YCS	VFF3MW1YES	VFF3MW1YPS	VFF3MW1YDS	VFF3MW1YXR	VFF3MW1YCR	VFF3MW1YER	VFF3MW1YPR	VFF3MW1YDR
VFF3NV1YXS	VFF3NV1YCS	VFF3NV1YES	VFF3NV1YPS	VFF3NV1YDS	VFF3NV1YXR	VFF3NV1YCR	VFF3NV1YER	VFF3NV1YPR	VFF3NV1YDR
VFF3NW1YXS	VFF3NW1YCS	VFF3NW1YES	VFF3NW1YPS	VFF3NW1YDS	VFF3NW1YXR	VFF3NW1YCR	VFF3NW1YER	VFF3NW1YPR	VFF3NW1YDR
VFF3PV1YXS	VFF3PV1YCS	VFF3PV1YES	VFF3PV1YPS	VFF3PV1YDS	VFF3PV1YXR	VFF3PV1YCR	VFF3PV1YER	VFF3PV1YPR	VFF3PV1YDR
VFF3PW1YXS	VFF3PW1YCS	VFF3PW1YES	VFF3PW1YPS	VFF3PW1YDS	VFF3PW1YXR	VFF3PW1YCR	VFF3PW1YER	VFF3PW1YPR	VFF3PW1YDR
VFF3RV1YXS	VFF3RV1YCS	VFF3RV1YES	VFF3RV1YPS	VFF3RV1YDS	VFF3RV1YXR	VFF3RV1YCR	VFF3RV1YER	VFF3RV1YPR	VFF3RV1YDR
VFF3RW1YXS	VFF3RW1YCS	VFF3RW1YES	VFF3RW1YPS	VFF3RW1YDS	VFF3RW1YXR	VFF3RW1YCR	VFF3RW1YER	VFF3RW1YPR	VFF3RW1YDR
VFF3SV1YXS	VFF3SV1YCS	VFF3SV1YES	VFF3SV1YPS	VFF3SV1YDS	VFF3SV1YXR	VFF3SV1YCR	VFF3SV1YER	VFF3SV1YPR	VFF3SV1YDR
					VFF3SW1YXR	VFF3SW1YCR	VFF3SW1YER	VFF3SW1YPR	VFF3SW1YDR
VFF3TV1YXS	VFF3TV1YCS	VFF3TV1YES	VFF3TV1YPS	VFF3TV1YDS	VFF3TV1YXR	VFF3TV1YCR	VFF3TV1YER	VFF3TV1YPR	VFF3TV1YDR
					VFF3TW1YXR	VFF3TW1YCR	VFF3TW1YER	VFF3TW1YPR	VFF3TW1YDR
VFF3UV1YXS	VFF3UV1YCS	VFF3UV1YES	VFF3UV1YPS	VFF3UV1YDS	VFF3UV1YXR	VFF3UV1YCR	VFF3UV1YER	VFF3UV1YPR	VFF3UV1YDR
					VFF3UW1YXR	VFF3UW1YCR	VFF3UW1YER	VFF3UW1YPR	VFF3UW1YDR
Resilient-seat, Nylon 11-coated Disks, Lugged Fittings, A-AB-B Porting									
VFF6FW1YXS	VFF6FW1YCS	VFF6FW1YES	VFF6FW1YPS	VFF6FW1YDS	VFF6FW1YXR	VFF6FW1YCR	VFF6FW1YER	VFF6FW1YPR	VFF6FW1YDR
VFF6GW1YXS	VFF6GW1YCS	VFF6GW1YES	VFF6GW1YPS	VFF6GW1YDS	VFF6GW1YXR	VFF6GW1YCR	VFF6GW1YER	VFF6GW1YPR	VFF6GW1YDR
VFF6HW1YXS	VFF6HW1YCS	VFF6HW1YES	VFF6HW1YPS	VFF6HW1YDS	VFF6HW1YXR	VFF6HW1YCR	VFF6HW1YER	VFF6HW1YPR	VFF6HW1YDR
VFF6JV1YXS	VFF6JV1YCS	VFF6JV1YES	VFF6JV1YPS	VFF6JV1YDS	VFF6JV1YXR	VFF6JV1YCR	VFF6JV1YER	VFF6JV1YPR	VFF6JV1YDR
VFF6JW1YXS	VFF6JW1YCS	VFF6JW1YES	VFF6JW1YPS	VFF6JW1YDS	VFF6JW1YXR	VFF6JW1YCR	VFF6JW1YER	VFF6JW1YPR	VFF6JW1YDR
VFF6KV1YXS	VFF6KV1YCS	VFF6KV1YES	VFF6KV1YPS	VFF6KV1YDS	VFF6KV1YXR	VFF6KV1YCR	VFF6KV1YER	VFF6KV1YPR	VFF6KV1YDR
VFF6KW1YXS	VFF6KW1YCS	VFF6KW1YES	VFF6KW1YPS	VFF6KW1YDS	VFF6KW1YXR	VFF6KW1YCR	VFF6KW1YER	VFF6KW1YPR	VFF6KW1YDR
VFF6LV1YXS	VFF6LV1YCS	VFF6LV1YES	VFF6LV1YPS	VFF6LV1YDS	VFF6LV1YXR	VFF6LV1YCR	VFF6LV1YER	VFF6LV1YPR	VFF6LV1YDR
VFF6LW1YXS	VFF6LW1YCS	VFF6LW1YES	VFF6LW1YPS	VFF6LW1YDS	VFF6LW1YXR	VFF6LW1YCR	VFF6LW1YER	VFF6LW1YPR	VFF6LW1YDR
VFF6MV1YXS	VFF6MV1YCS	VFF6MV1YES	VFF6MV1YPS	VFF6MV1YDS	VFF6MV1YXR	VFF6MV1YCR	VFF6MV1YER	VFF6MV1YPR	VFF6MV1YDR
VFF6MW1YXS	VFF6MW1YCS	VFF6MW1YES	VFF6MW1YPS	VFF6MW1YDS	VFF6MW1YXR	VFF6MW1YCR	VFF6MW1YER	VFF6MW1YPR	VFF6MW1YDR
VFF6NV1YXS	VFF6NV1YCS	VFF6NV1YES	VFF6NV1YPS	VFF6NV1YDS	VFF6NV1YXR	VFF6NV1YCR	VFF6NV1YER	VFF6NV1YPR	VFF6NV1YDR
VFF6NW1YXS	VFF6NW1YCS	VFF6NW1YES	VFF6NW1YPS	VFF6NW1YDS	VFF6NW1YXR	VFF6NW1YCR	VFF6NW1YER	VFF6NW1YPR	VFF6NW1YDR
VFF6PV1YXS	VFF6PV1YCS	VFF6PV1YES	VFF6PV1YPS	VFF6PV1YDS	VFF6PV1YXR	VFF6PV1YCR	VFF6PV1YER	VFF6PV1YPR	VFF6PV1YDR
VFF6PW1YXS	VFF6PW1YCS	VFF6PW1YES	VFF6PW1YPS	VFF6PW1YDS	VFF6PW1YXR	VFF6PW1YCR	VFF6PW1YER	VFF6PW1YPR	VFF6PW1YDR
VFF6RV1YXS	VFF6RV1YCS	VFF6RV1YES	VFF6RV1YPS	VFF6RV1YDS	VFF6RV1YXR	VFF6RV1YCR	VFF6RV1YER	VFF6RV1YPR	VFF6RV1YDR
VFF6RW1YXS	VFF6RW1YCS	VFF6RW1YES	VFF6RW1YPS	VFF6RW1YDS	VFF6RW1YXR	VFF6RW1YCR	VFF6RW1YER	VFF6RW1YPR	VFF6RW1YDR
VFF6SV1YXS	VFF6SV1YCS	VFF6SV1YES	VFF6SV1YPS	VFF6SV1YDS	VFF6SV1YXR	VFF6SV1YCR	VFF6SV1YER	VFF6SV1YPR	VFF6SV1YDR
					VFF6SW1YXR	VFF6SW1YCR	VFF6SW1YER	VFF6SW1YPR	VFF6SW1YDR
VFF6TV1YXS	VFF6TV1YCS	VFF6TV1YES	VFF6TV1YPS	VFF6TV1YDS	VFF6TV1YXR	VFF6TV1YCR	VFF6TV1YER	VFF6TV1YPR	VFF6TV1YDR
					VFF6TW1YXR	VFF6TW1YCR	VFF6TW1YER	VFF6TW1YPR	VFF6TW1YDR
VFF6UV1YXS	VFF6UV1YCS	VFF6UV1YES	VFF6UV1YPS	VFF6UV1YDS	VFF6UV1YXR	VFF6UV1YCR	VFF6UV1YER	VFF6UV1YPR	VFF6UV1YDR
					VFF6UW1YXR	VFF6UW1YCR	VFF6UW1YER	VFF6UW1YPR	VFF6UW1YDR

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63-9271 PR
May 2008
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