



V5011N Two-Way Threaded Globe Valve

The V5011N is a two-way threaded globe valve for control of steam, water, and glycol solutions (up to 50 percent concentration) in heating or cooling HVAC applications. These valves are used in two-position and modulating control systems. The valve is not suitable for combustible gas service.

SPECIFICATIONS

Models:

- V5011N Valves: Two-way threaded globe valves for steam, water, or glycol. NPT-threaded pipe connections. Throttling plug provides equal percentage flow characteristic for water (V5011N1xxx, V5011N3xxx), linear flow characteristic for steam (V5011N2xxx). Push down valve stem to close.

Valve Sizes and Flow Capacities:

Size (in.)	Capacity (C _v)
1/2	0.73
	1.16
	1.85
	2.9
	4.7
3/4	7.3
1	11.7
1-1/4	18.7
1-1/2	29.3
2	46.8

Pipe Connections:

- Female NPT-threaded connections.

Seat:

- Stainless steel, replaceable (except V5011N3xxx 3/4 in. to 1-1/4 in. which have internal brass seat).

ANSI Body Class:

- 150 psi.

Stem:

- Stainless steel.

Plug:

- Brass on models for water (V5011N1xxx and V5011N3xxx) stainless steel on models for steam (V5011N2xxx).

Stroke:

- 3/4 in. (20 mm).

Approximate Leakage Rate:

- 0.05 percent of C_v.

Pattern:

- 2-way, straight-through.

SPECIFICATION DATA

FEATURES

- Red brass body with NPT-threaded end connections.
- Low seat leakage rate (≤ 0.05 percent of C_v).
- Spring-loaded, self-adjusting packing.
- 50:1 rangeability per VDI/VDE 2173.
- Accurate positioning to ensure state-of-the-art temperature control.
- Directly coupled electric and pneumatic actuators for easy mounting.
- Sizes range from 1/2 in. to 2 in.
- Valve designs provide equal percentage flow characteristic for water and linear flow characteristic for steam.
- Repack and rebuild kits for field servicing.

Body Material:

- Red brass.

Packing:

- Spring-loaded, carbon fiber reinforced V-rings.

Pressure-Temperature Body Ratings:

- Water:
 - 36°F to 248°F, 217 psi (15 bar).
 - 248°F to 340°F, 185 psi (12.8 bar).
 - Maximum water differential pressure: 230 psid (15.8 bar).
- Steam:
 - 100 psi (6.9 bar) at 337°F (V5011N2xxx).

Valve Flow Characteristics:

- Water: equal percentage flow characteristic (V5011N1xxx, V5011N3xxx).
- Steam: linear flow characteristic (V5011N2xxx).

Close-Off Pressure Ratings:

- Refer to the product data, 63-2548.

Maximum Pressure Differential for Quiet Water Service:

- 20 psi differential.

Rangeability:

- 50:1 per VDI/VDE 2173

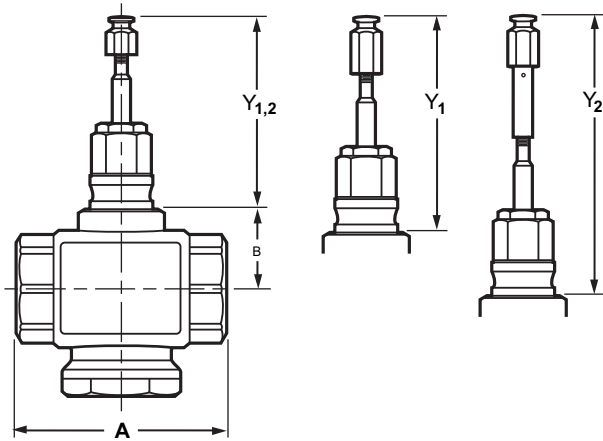
Motor and Linkage Selection:

Electric	Pneumatic
ML6420/ML6421/ML6425	MP953C (5 and 8 in.)
ML7420/ML7421/ML7425	MP953E (5 and 8 in.)
ML7984/ML6984	MP953D (7 1/8 in.)
Modutrol IV with Q5001	MP953F (7 1/8 in.)
Damper DCA with Q5020	—



V5011N TWO-WAY THREADED GLOBE VALVE

Dimensions:



VALVE SIZE (IN)	A in. (mm)	B in. (mm)
1/2	3-1/4 (83)	1-9/16 (40)
3/4		
1	4-1/16 (103)	1-13/16 (47)
1-1/4	4-3/16 (106)	
1-1/2	4-3/4 (120)	
2	5-1/4 (134)	

VALVE	Y ₁ in. (mm)	Y ₂ ^a in. (mm)
V5011N1XXX	3-1/2 (89)	5-1/4 (133)
OR		
V5011N2XXX	STEM FULLY DOWN	
V5011N3XXX	4-3/16 (107)	5-15/16 (151)
	STEM FULLY UP	

^aY₂ WITH STEM EXTENSION FOR MP953C,E (8 IN. ONLY)

M17378A

TYPICAL SPECIFICATIONS

Automatic control valves shall have threaded type fittings, 1/2 in. through 2 in. sizes, and shall be ANSI-rated to withstand the pressures and temperatures encountered.

Valves shall have metal-to-metal seats, stainless-steel stems, and replaceable spring-loaded reinforced carbon filled teflon packing.

Valves shall have a leakage rate of 0.05% C_V or less. Valves shall have a 50:1 rangeability or better.

All two way water valves shall be provided with equal-percentage contoured throttling plugs. All steam valves shall be provided with linear contoured throttling plugs.

ACCESSORIES

Stem Button:

- 090116

Repack Kits:

- 0901786 for 1/4 in. stems (1/2 in. through 1-1/4 in. valves).
- 0901787 for 3/8 in. stems (1-1/2 in. through 2 in. valves).

Rebuild Kits:

- Refer to V5011N Two-Way Threaded Globe Valve Product Data, form 63-2548.

Automation and Control Solutions

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