

## 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 <sub>v</sub> )
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<sub>v</sub>.

#### Pattern:

- 2-way, straight-through.

### SPECIFICATION DATA

### FEATURES

- Red brass body with NPT-threaded end connections.
- Low seat leakage rate ( $\leq 0.05$  percent of C<sub>v</sub>).
- 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:

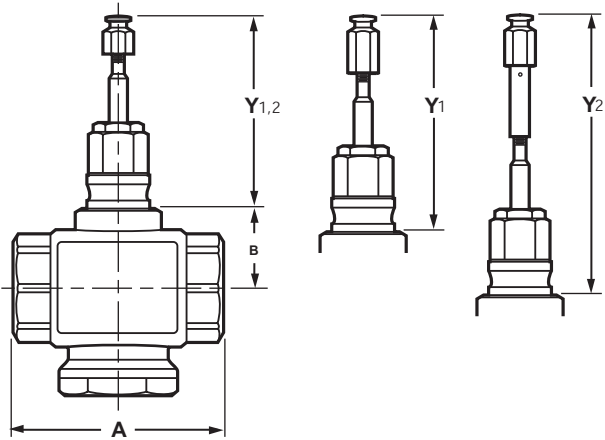
- 50:1 per VDI/VDE 2173

#### Motor and Linkage Selection:

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



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)	
1-1/4	4-3/16 (106)	
1-1/2	4-3/4 (120)	1-13/16 (47)
2	5-1/4 (134)	

VALVE	Y1 in. (mm)	Y2 <sup>a</sup> 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	

<sup>a</sup>Y2 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<sub>V</sub> 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" valves).

**Rebuild Kits:**

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

