

# Zone Globe Valve Bodies, Screwed, Two & Three Way



## DESCRIPTION

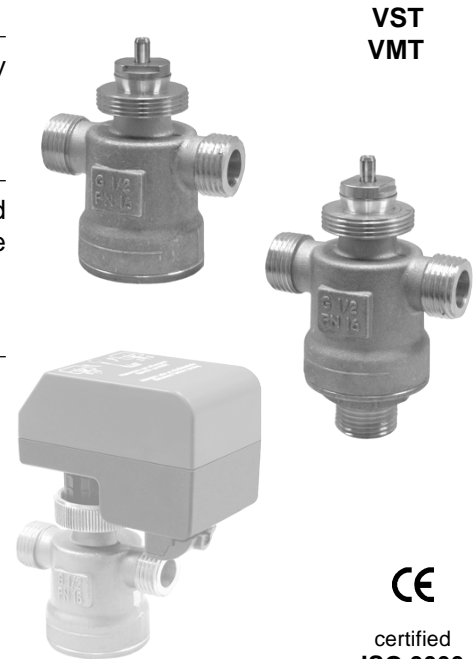
1/2" to 3/4" screwed, single seated, 2-way and 3-way, 232 PSIG body rated, hot and chilled water valves.

## APPLICATION

Valves for 2-way or 3-way mixing configuration in heating, ventilation and air conditioning systems; i.e. fan coil units, reheat of VAV/VVT boxes, base boards, and other AC units.

## FEATURES

- 232 PSIG body rated
- Hot & chilled water
- 3-way bypass with reduced Cv's for balanced system pressure
- High turndown ratio
- Spring return, w/o actuator
- External manual override, screw-on cap
- Easy valve actuator pop-on
- Maintenance free
- Two-year warranty



VST  
VMT

CE  
certified  
ISO 9000

## SPECIFICATIONS

### Physical

Body rating 232 PSIG (1600 kPa)

### Media

Water temperature 41°F to 203°F (5°C to 95°C)  
- w/ MVT actuator

Glycol added Max. 50% of water contents

Pipe Connection Screwed, NPT, male

### Material/Characteristics

Valve body Brass, OT58  
- packing Double O-ring, buna N  
- stem CrNi stainless steel  
- plug IXEF, Rilsan coated  
- seat Brass, OT58, machined  
Stem stroke 0.22 in. (5.5 mm)  
Leakage None; tightly closed off

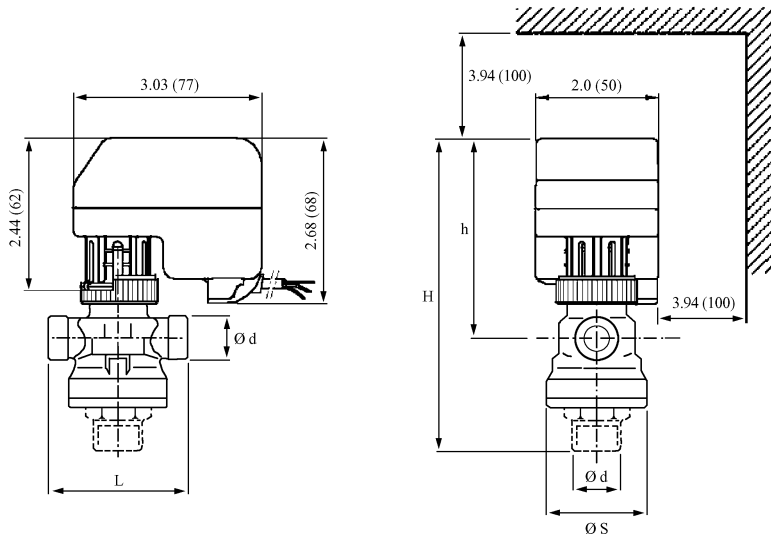
### Stroke Cv

- straight-way Equal percentage  
- angle-away Linear  
Max. flow 590 ft/min (3 m/sec)  
Spring return Springs back to stem-up, refer to table "Valve Action"  
Manual override With optional black cap "VST-CAP"  
MVT actuator series MVT actuator series  
Valve Actuator Easy pop-on, screw connection  
Compatibilities ISO 9000 certified  
Manufacturing CE  
Listings/Approvals Two-year material and workmanship  
Warranty

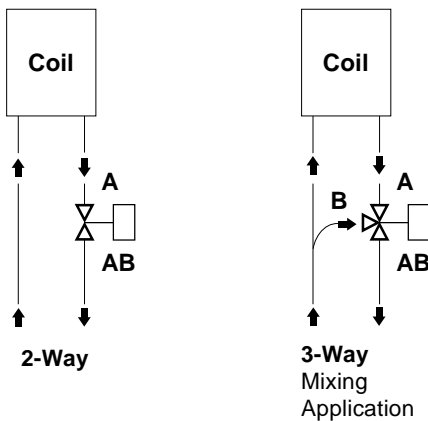
Size	Flow Coefficient		Max. Differential Pressure	Max. Close-Off Pressure	Part Numbers	
	2 + 3-Way Straight A to AB	3-Way Angle B to AB			2-Way	3-Way
Inch (mm)	Cv (Kv)	Cv (Kv)	PSIG (kPa)	w/ MVT Actuator PSIG (kPa)		
1/2" (15)	0.29 (0.25)	0.29 (0.25)	51 (350)	51 (350)	VST09-PS2	VMT09-PS2
1/2" (15)	0.47 (0.4)	0.29 (0.25)	51 (350)	51 (350)	VST10-PS2	VMT10-PS2
1/2" (15)	0.70 (0.6)	0.47 (0.4)	51 (350)	51 (350)	VST11-PS2	VMT11-PS2
1/2" (15)	1.16 (1.0)	0.70 (0.6)	51 (350)	51 (350)	VST12-PS2	VMT12-PS2
1/2" (15)	1.87 (1.6)	1.16 (1.0)	51 (350)	51 (350)	VST13-PS2	VMT13-PS2
1/2" (15)	2.92 (2.5)	1.87 (1.6)	51 (350)	51 (350)	VST1-PS2	VMT1-PS2
3/4" (20)	4.67 (4.0)	2.92 (2.5)	37 (250)	37 (250)	VST2-PS2	VMT2-PS2

Valve Body Dimensions, Inch (mm)					
Size Ø d	L	Ø S	h	H VST	H VMT
1/2"	2.6 (66)	1.7 (42)	3.4 (85)	4.9 (124)	5.6 (142)
3/4"	3.1 (77)	1.8 (46)	3.5 (88)	5.2 (131)	5.8 (147)

Valve Body	Size	Weight lbs. (kg)
<b>VST</b> 2-way	1/2"	0.9 (0.4)
	3/4"	1.1 (0.5)
<b>VMT</b> 3-way	1/2"	1.0 (0.45)
	3/4"	1.2 (0.55)



## VALVE PIPING & OPERATION



Valve markings on body for  
 2-way: **A** and **AB**  
 3-way: **A**, **B** and **AB**

To avoid valve clogging, all dirt, metal shavings, slag, sand, etc. located inside of piping must be removed/flushed out prior to installing the valve.

Avoid installing the valve in a location where it will be subjected to vibration.

The valve body should be piped up without the actuator assembled.

The valve can be piped in horizontal or vertical position, but not in the valve stem downwards position.

2-way valves must be piped with flow input **A** to output **AB**.

3-way valves should be piped as mixing configuration (flow input **A** and input **B** to output **AB**).

If piped incorrectly, valve performance may falter.

Valve Action	Without actuator coupled	MVT actuator coupled
Port A to AB	closed, stem-up (spring return)	Control signal increased/decreased
<b>VST</b> 2-way, and <b>VMT</b> 3-way	closed, stem-up (spring return)	moves into 0...100% open/closed position, in case of power failure stays in last position of operation

The valve can be manually opened, closed or put in any position by screwing the black cap up or down the valve stem. This operation is possible only if the actuator is not assembled.

