

# 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 or diverting 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 for mixing or diverting application
- 3-way bypass with reduced Cv's for balanced system pressure
- High turndown ratio
- Spring return
- External manual valve override, bracket push-on
- Easy valve actuator pop-on
- Maintenance free
- Two-year warranty



## SPECIFICATIONS

### Physical

Body rating 232 PSIG (1600 kPa)

### Media

Water temperature 41°F to 203°F (5°C to 95°C)  
 - w/ MVA 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 0.14 in. (3.5 mm)  
 Leakage None

### Stroke Cv

- straight or angle-away Linear  
 Turndown ratio 50:1  
 (Rangeability)  
 Max. flow 590 ft/min (3 m/sec)  
 Spring return Springs back to stem-up, refer to table "Valve Action"

### Manual override

### Valve Actuator

### Compatibilities

### Manufacturing

### Listings/Approvals

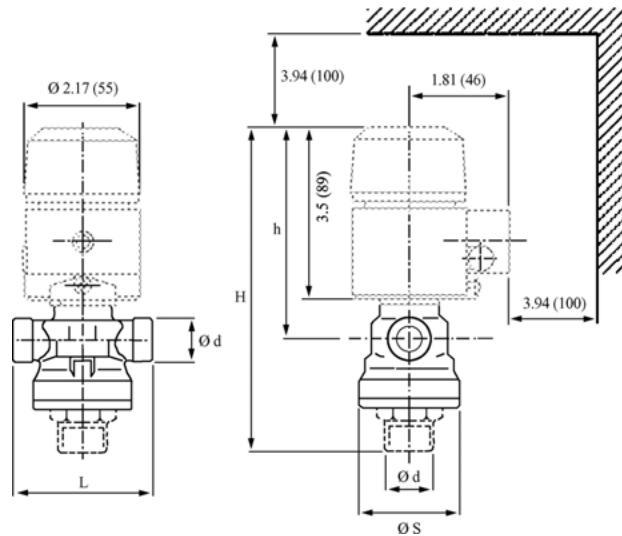
### Warranty

Supplied push-on bracket  
 MVA actuator series  
 Easy pop-on, screw connection  
 ISO 9001 certified  
 CE  
 Two-year material and workmanship

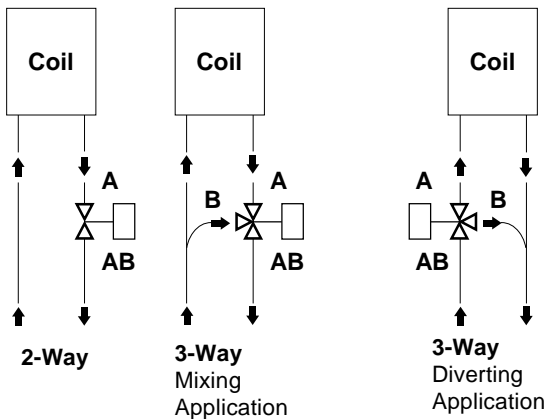
Size Inch (mm)	Flow Coefficient		Max. Differential Pressure PSIG (kPa)	Max. Close Off Pressure w/ Actuators MVA		Part Numbers		
	2 + 3-Way Straight A to AB Cv (Kv)	3-Way Angle B to AB Cv (Kv)		Mixing PSIG (kPa)	Diverting PSIG (kPa)	2-Way Normally Closed	2-Way Normally Open	3-Way
	1/2" (15)	0.29 (0.25)		0.29 (0.25)	21.8 (150)	40 (276)	27 (186)	VSZ09B-PS2
1/2" (15)	0.47 (0.4)	0.29 (0.25)	21.8 (150)	40 (276)	27 (186)	VSZ10B-PS2	N/A	VMZ10B-PS2
1/2" (15)	0.70 (0.6)	0.47 (0.4)	21.8 (150)	40 (276)	27 (186)	--	VSZ11BA-PS2	--
1/2" (15)	1.16 (1.0)	0.70 (0.6)	21.8 (150)	40 (276)	27 (186)	--	VSZ12BA-PS2	--
1/2" (15)	1.87 (1.6)	1.16 (1.0)	21.8 (150)	40 (276)	27 (186)	--	VSZ13BA-PS2	--
1/2" (15)	2.92 (2.5)	1.87 (1.6)	21.8 (150)	40 (276)	27 (186)	--	VSZ1BA-PS2	--
3/4" (20)	4.67 (4.0)	2.92 (2.5)	21.8 (150)	22 (151)	15 (103)	--	VSZ2BA-PS2	--

Valve Body Dimensions, Inch (mm)							
Size Ø d	L	Ø S	h	h VSZ..BA	H VSZ..B	H VSZ..BA	H VMZ..B
1/2"	2.6 (66)	1.7 (42)	4.4 (112)	5.3 (133)	6.0 (151)	5.7 (145)	6.7 (169)
3/4"	3.1 (77)	1.8 (46)	4.5 (115)	5.4 (137)	6.2 (158)	6.0 (151)	6.9 (174)

Valve Body	Size	Weight lbs. (kg)
<b>VSZ..B</b> 2-way, N.C.	1/2"	0.9 (0.4)
<b>VSZ..BA</b> 2-way, N.O.	1/2" 3/4"	1.1 (0.5) 1.1 (0.5)
<b>VMZ..B</b> 3-way	1/2"	1.0 (0.45)



**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 preferably be piped as mixing configuration (flow input **A** and input **B** to output **AB**). It can be piped as diverting configuration (flow input **AB** to two outputs **A** and **B**)

If piped incorrectly, valve performance may falter.

Valve Action Port A to AB - Spring return	Without actuator coupled	MVA actuator coupled	
		0% Power	100% Signal / Power
<b>VSZ..B</b> and <b>VMZ..B</b>	closed, stem-up		open, stem-down
<b>VSZ..BA</b>	open, stem-up		closed, stem-down

With the supplied push-on manual override bracket the valve, without actuator assembled, can be manually opened or closed by clipping the bracket over the stem and below the tapered valve neck.

