Globe Valve Bodies, Flanged, Two & Three Way

INTEC CONTROLS

DESCRIPTION

VSG
VMB16

2 1/2" to 6" flanged, single seated, 2-way and 3-way, 232 PSIG body rated, hot and chilled water and low pressure steam globe valves.

APPLICATION

Valves for 2-way or 3-way mixing configuration in commercial and industrial heating, ventilation and air conditioning systems.

FEATURES

- *232 PSIG body rated*
- *Hot & chilled water*
- *Low pressure steam*
- *3-way for mixing application*
- *Equal percentage flow characteristic*
- *High turndown ratio*
- *Maintenance free*
- *Two-year warranty*

certified **ISO 9001** CE

SPECIFICATIONS

Physical	
Body rating	232 PSIG (1600 kPa)
Media	
Water temperature	
- w/MVL actuator	14°F to 302°F (-10°C to 150°C)
Glycol added	Max. 50% of water contents Note: Keep stem and packaging free from icing
Steam temperature	
- w/MVL actuator	Up to 248°F (120°C)
- steam gage pressure	Max. 14.5 PSIG (100 kPa)
Pipe Connection	Flanged, ANSI/ASA 125
Material/Characteristics	
Valve body	Cast iron, G25
- packing	Viton double O-ring w/graphited teflon scraper rings
- stem	Stainless steel, AISI 303
- stem diameter	Ø 9 mm (2 1/2" to 3" valves) Ø 12 mm (4" to 6" valves)
- plug	Forged brass
- seat	Cast iron, G25
Stem stroke	
- 2 1/2" valves	0.98 in. (25 mm)
- 3" to 6" valves	1.77 in. (45 mm)
Leakage	
- straight-way	0... 0.03% of Cv
- angle-way	0... 2% of Cv
Stroke Cv	
- straight-way	Equal percentage
- angle-way	Linear
Turndown ratio	Greater than 50:1
Max. flow	590 ft/min (3 m/sec)
Valve Actuator Compatibilities	MVL, MVL..A/C and others

Size	**Flow Coefficient**	**Maximum Differential Pressure**	**Maximum Close Off Pressure** w/Actuators		**Part Numbers**	
			MVL..	**MVL..A/C**	**2-Way**	**3-Way**
Inch (mm)	Cv (Kv)	PSIG (kPa)	PSIG (kPa)	PSIG (kPa)		
2 1/2 (65)	73.50 (63)	29 (200)	58 (400)	21.8 (150)	**VSG65A**	**VMB16-65A**
3 (80)	116.67 (100)	29 (200)	35 (240)	13.1 (90)	**VSG80A**	**VMB16-80A**
4 (100)	151.67 (130)	22 (150)	22 (150)	7.3 (50)	**VMB16-100A/K**	**VMB16-100A**
5 (125)	233.33 (200)	13 (90)	13 (90)	3.6 (25)	**VMB16-125A/K**	**VMB16-125A**
6 (150)	350.00 (300)	7.3 (50)	7.3 (50)	2.2 (15)	**VMB16-150A/K**	**VMB16-150A**

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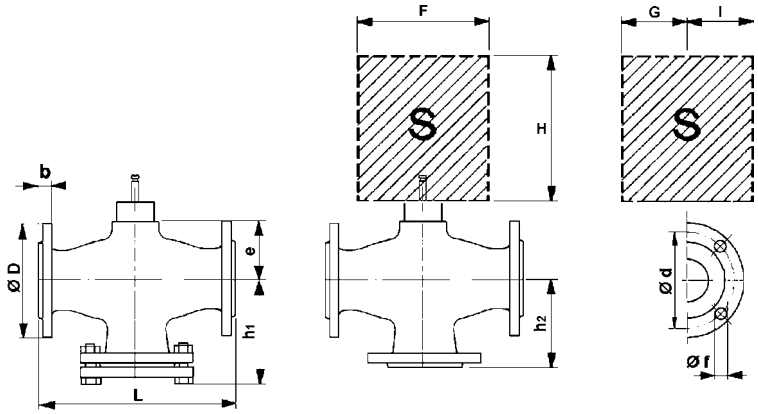
Printed in USA 041201

Outside Valve Body Dimensions, Inch (mm)									
Size	**Ø D**	**b**	**Ø d**	**Ø f**	**Holes**	**L**	**e**	**2-Way h1**	**3-Way h2**
2 1/2 (65) 3 (80)	7.28 (185) 7.87 (200)	0.79 (20) 0.87 (22)	5.71 (145) 6.30 (160)	0.71 (18) 0.71 (18)	4 4	11.42(290) 12.21 (310)	2.80 (71) 3.19 (81)	6.89 (175) 7.36 (187)	5.71 (145) 6.10 (155)
4 (100) 5 (125)	8.66 (220) 9.84 (250)	0.87 (22) 0.95 (24)	7.09 (180) 8.27 (210)	0.71 (18) 0.71 (18)	8 8	13.78 (350) 15.75 (400)	3.66 (93) 4.53 (115)	8.15 (207) 9.21 (234)	6.89 (175) 7.87 (200)
6 (150)	11.22 (285)	0.95 (24)	9.45 (240)	0.87 (22)	8	18.90 (480)	5.24 (133)	10.91 (277)	9.45 (240)



Weight		
Size Inch (mm)	**2-Way** lbs. (kg)	**3-Way** lbs. (kg)
2 1/2 (65) 3 (80)	55.1 (25) 70.5 (32)	41.9 (19) 52.9 (24)
4 (100) 5 (125)	92.6 (42) 125.7 (57)	70.5 (32) 101.4 (46)
6 (150)	160.9 (73)	134.5 (61)

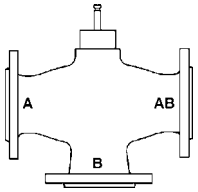
S = Space requirement for actuator mounting, Inch (mm)				
Actuator	**H**	**F**	**G**	**I**
MVL..	14.61 (371)	8.66 (220)	1.18 (30)	5.83 (148)
MVL..A/C	14.61 (371)	8.66 (220)	2.28 (58)	5.83 (148)

OPTIONS

- **245**
  Stem heater for VSG, VMB16 series, 2 1/2" to 6"

  For media temperature below 14°F (-10°C) to avoid freeze-up of actuator/valve stem, 24 VAC, 75 VA

VALVE PIPING & OPERATION

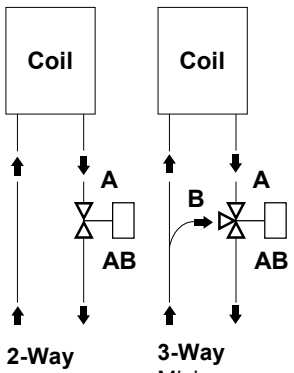


Valve markings on body for
2-way: **A** and **AB**
3-way: **A**, **B** and **AB**

Valve stem down, direct way **A** to **AB** is open.

MVL..A/C spring return actuator action at power failure:

- MVL..C, direct way **A** to **AB** will be open.
- MVL..A, direct way **A** to **AB** will be closed.



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 can be installed in any position except in the valve stem downwards position.

Mount valve horizontally if media temperature is above 248°F (120°C).

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