Globe Valve Bodies, Flanged, Two-Way, Balanced

DESCRIPTION

1" to 5" flanged, balanced, single-seated, 2-way, 580 PSIG body rated, high close-off globe valves for hot, super-heated and chilled water, and high pressure steam.

VBAA
"580 PSIG, Balanced, High Close-Off"

certified **ISO 9001**

APPLICATION

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

FEATURES

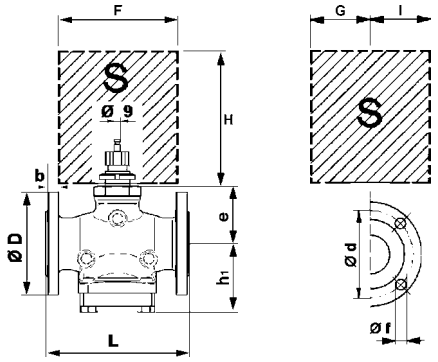
- *580 PSIG body rated*
- *Hot & super-heated water*
- *Chilled water*
- *Low & high pressure steam*
- *Balanced inner valve*
- *High close-off pressure*
- *Equal percentage flow characteristic*
- *High turndown ratio*

SPECIFICATIONS

Physical	
Body rating	580 PSIG (4000 kPa)
Media	
- water temperature	-4°F to 446°F (-20°C to 230°C)
- glycol added	Max. 50% of water contents Note: Keep stem and packaging free from icing
- diathermic oil temp., max	446°F (230°C)
- steam temperature, max	446°F (230°C)
- steam pressure, max	174 PSIG (1200 kPa)
Pipe Connection	Flanged, UNI
Material/Characteristics	
- body	steel
- balancing chamber	Teflon ring, w/steel spring
- packing	Teflon
- stem	Stainless steel, AISI 303
- plug	Stainless steel, AISI 303
- seat	Stainless steel, AISI 303
Stem stroke	
- 1" valve	0.65 in. (16.5 mm)
- 1 1/4" to 2 1/2" valves	0.98 in. (25 mm)
- 3" to 5" valves	1.77 in. (45 mm)
Leakage	0...0.02% of Cv
Stroke Cv	Equal percentage
Turndown ratio	Greater than 50:1
Max. flow	590 ft/min (3 m/sec)
Standards	
Compliance	97/23/CE PED directive
Control valves	UNI 9753
Control flow characteristic	IEC 534-2-4
Valve Actuator Compatibilities	MVL, MVL..A/C and others

Size Inch (mm)	**Flow Coefficient** Cv (Kv)	**Maximum Differential Pressure** PSIG (kPa)	**Maximum Close Off Pressure** w/Actuators		**Part Numbers**
			MVL.. PSIG (kPa)	**MVL..A/C** PSIG (kPa)	**2-Way**
1 (25)	11.67 (10)	174 (1,200)	435 (3,000)	435 (3,000)	**VBAA25**
1 1/4 (32)	18.67 (16)	174 (1,200)	435 (3,000)	435 (3,000)	**VBAA32**
1 1/2 (40)	29.18 (25)	174 (1,200)	435 (3,000)	435 (3,000)	**VBAA40**
2 (50)	46.68 (40)	174 (1,200)	435 (3,000)	435 (3,000)	**VBAA50**
2 1/2 (65)	73.52 (63)	174 (1,200)	435 (3,000)	319 (2,200)	**VBAA65**
3 (80)	116.70 (100)	174 (1,200)	435 (3,000)	261 (1,800)	**VBAA80**
4 (100)	151.71 (130)	174 (1,200)	406 (2,800)	160 (1,100)	**VBAA100**
5 (125)	233.40 (200)	174 (1,200)	319 (2,200)	116 (800)	**VBAA125**

Outside Valve Body Dimensions, Inch (mm)									**Weight**
Size	**Ø D**	**b**	**Ø d**	**Ø f**	**Holes**	**L**	**e**	**h1**	**2-Way** lbs. (kg)
1 (25)	4.33 (115)	0.71 (18)	3.35 (85)	0.55 (14)	4	6.30 (160)	5.20 (132)	3.31 (84)	24.3 (11)
1 1/4 (32)	5.51 (140)	0.71 (18)	3.94 (100)	0.71 (18)		7.09 (180)	5.79 (147)	3.90 (99)	35.3 (16)
1 1/2 (40)	5.91 (150)	0.71 (18)	4.33 (110)	0.71 (18)		7.87 (200)	5.91 (150)	4.02 (102)	39.7 (18)
2 (50)	6.50 (165)	0.79 (20)	4.92 (125)	0.71 (18)		9.06 (230)	6.02 (153)	4.17 (106)	44.1 (21)
2 1/2 (65)	7.28 (185)	0.87 (22)	5.71 (145)	0.71 (18)	8	10.63 (270)	6.65 (169)	4.92 (125)	66.2 (30)
3 (80)	7.87 (200)	0.95 (24)	6.30 (160)	0.71 (18)		12.21 (310)	7.24 (184)	5.87 (149)	97.0 (44)
4 (100)	9.25 (235)	0.95 (24)	7.48 (190)	0.87 (22)		13.78 (350)	6.42 (163)	6.77 (172)	116.9 (53)
5 (125)	10.63 (270)	1.02 (26)	8.66 (220)	0.99 (25)		15.75 (400)	7.09 (188)	8.27 (210)	183.0 (83)

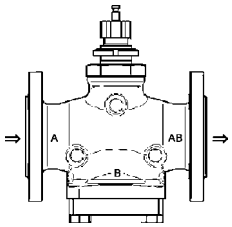


S = Space requirement for actuator mounting, Inch (mm)				
Actuator	**H**	**F**	**G**	**I**
MVL..	14.61 (371)	8.66 (220)	1.18 (30)	5.83 (148)
MVL..A/C	14.61 (371)	8.66 (220)	2.28 (58)	5.83 (148)

OPTIONS & ACCESSORIES

- 245 Stem heater for VBAA series, 1" to 5" valves	For media temperature below 14°F (-10°C) to avoid freeze-up of actuator/valve stem, 24 VAC, 75 VA
- CF-DN25/NP40	1" (25 mm)
CF-DN32/NP40	1 1/4" (32 mm)
CF-DN40/NP40	1 1/2" (40 mm)
CF-DN50/NP40	2" (50 mm)
CF-DN65/NP40	2 1/2" (65 mm)
CF-DN80/NP40	3" (80 mm)
CF-DN100/NP40	4" (100 mm)
CF-DN125/NP40	5" (125 mm)
Companion flange	UNI flange 580 PSIG (4000 kPa), w/bolts, nuts and gasket

VALVE PIPING & OPERATION



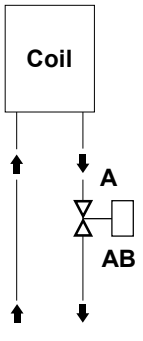
2-Way

Valve markings on body:
A and **AB**

The special characteristic of these valves is that they can work under high close-off pressure and wherever low leakage is required. This makes them particularly suitable for applications with super-heated water (i.e., remote heating plants, boiler feeding, etc) and steam.

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.



2-Way

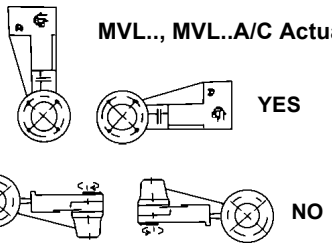
To avoid valve clogging, all dirt, metal shavings, slag, sand, etc. located inside of piping must be removed / flushed out prior to installing the valve.

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

When assembling valves on plants with high temperature media (i.e. steam, overheated water, diathermic oil) arrange for expansion joints to be mounted so as to avoid pipe expansions from overloading the vale body.

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).



MVL.., MVL..A/C Actuators

YES

NO