

# VB-7263 Precision Globe Valves



## Globe Valves

VB-7263 series single seat, stem up to close, two-way valves control water from 20 to 340°F (-7 to 171°C) or saturated saturated steam to 340°F (171°C) max. in heating or air conditioning systems. These valves have stainless steel trim with a PTFE disc. They are used for two-position or proportional control applications. Valve assemblies may be purchased from the factory or purchased separately, requiring an actuator and linkage.

Note: Do not use for combustible gas applications. The VB-7263 series valves are not rated for combustible gas applications, and if used in these applications, gas leaks and explosions could result.

## Specifications

Action	Stem Up Closed
Sizes	1/2" to 2"
ANSI Pressure Class	250 (up to 400 psig below 150° F)
ANSI Seat Leakage	Designed to ANSI V up to 35 psi (241 kPa), ANSI IV up to 87 psi (600kPa) with long term seat leakage dependent on proper water conditioning and maintenance of the water system <sup>d</sup>
Control Media Temperature	20 to 340° F (-7 to 171° C) water (up to 60% glycol/water solution), low pressurized, treated steam
Allowable DP for Water <sup>b</sup>	87 psi (600 kPa) Max for normal life. <sup>a</sup>
Maximum inlet pressure saturated steam	100 psig (690 kPa)
Max DP for sizing, saturated steam <sup>b</sup>	80% of inlet pressure up to 15 psig and 42% of absolute (gage pressure plus 14.7) inlet pressure above 15 psig inlet
Max DP at close-off, saturated steam <sup>b</sup>	Inlet pressure (actuator must be rated to provide close-off pressure)
Listings/Certifications	RoHS Compliant, PED, CRN
Body Pattern	NPT Threaded

## Features

- RoHS compliant product.
- High rangeability provides fine, accurate control for more efficient, responsive and comfortable regulation.
- Tight sealing with ultra low energy leakage on shutoff for improved system efficiency.

## Additional Information

For more information, download these documents from our website.

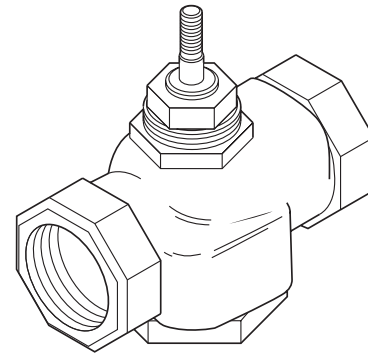
- CA-28 Control Valve Sizing, F-13755
- Valve Selection Chart Water, F-11080
- Valve Selection Chart Saturated steam, F-11366
- VB-7000 Installation Instructions, F-27651
- EN-205, Water System Guidelines Engineering Information, F-26080

## Materials

Body	Bronze
Seat	316 Stainless Steel
Stem	316 Stainless Steel
Plug	316 Stainless Steel
Packing	Spring-Loaded TFE/EPDM
Disc	PTFE

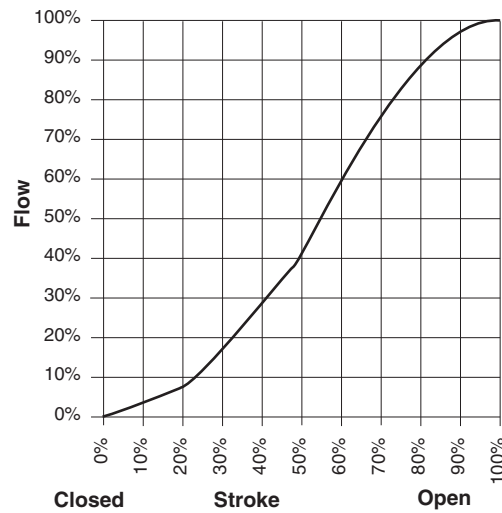
Valve Size Table

Valve Size	Cv	Kvsb	Rangeability Greater than	Valve Body Part Number
1/2"	0.1	0.09	13 to 1	VB-7263-0-4-31
	0.22	0.19	18 to 1	VB-7263-0-4-33
	0.4	0.35	100 to 1	VB-7263-0-4-01
	0.75	0.65	100 to 1	VB-7263-0-4-34
	1	0.87	100 to 1	VB-7263-0-4-36
	1.3	1.1	100 to 1	VB-7263-0-4-02
	1.8	1.6	100 to 1	VB-7263-0-4-28
	2.2	1.9	100 to 1	VB-7263-0-4-03
	2.9	2.5	100 to 1	VB-7263-0-4-30
	3.25	2.8	100 to 1	VB-7263-0-4-39
3/4"	4.4	3.8	100 to 1	VB-7263-0-4-04
	5.5	4.8	100 to 1	VB-7263-0-4-05
	6.3	5.4	100 to 1	VB-7263-0-4-41
1"	7.5	6.5	100 to 1	VB-7263-0-4-06
	8.2	7.1	100 to 1	VB-7263-0-4-51
	9	7.8	100 to 1	VB-7263-0-4-52
1-1/4"	10	8.7	100 to 1	VB-7263-0-4-07
	12	10	100 to 1	VB-7263-0-4-08
	14	12	100 to 1	VB-7263-0-4-61
	16	14	100 to 1	VB-7263-0-4-62
1-1/2"	18	16	100 to 1	VB-7263-0-4-63
	20	17	100 to 1	VB-7263-0-4-09
	22	19	100 to 1	VB-7263-0-4-71
2"	24	21	100 to 1	VB-7263-0-4-72
	28	24	100 to 1	VB-7263-0-4-10
	31	27	100 to 1	VB-7263-0-4-81
	34	29	100 to 1	VB-7263-0-4-82
	40	35	100 to 1	VB-7263-0-4-11



**Flow Characteristics**

All valves have modified linear flow characteristics. That is, the flow rate is nominally proportional to the valve plug lift, at a constant differential pressure.



**Temperature Pressure Ratings**

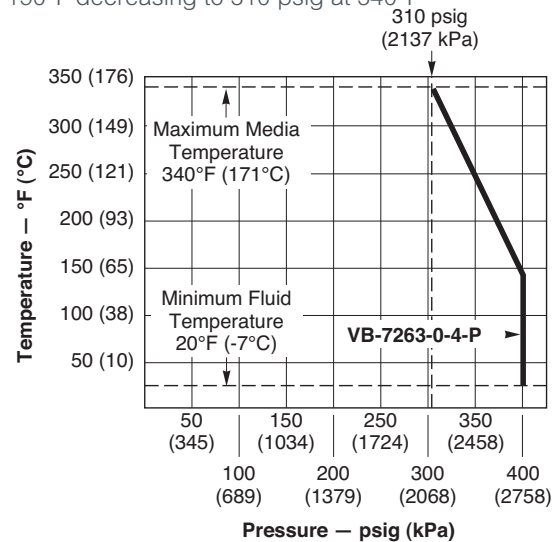
Consult the appropriate valve linkage general instruction sheet for the effect of valve body ambient temperatures on specific actuators. Ratings conform with published values and disclaimer.

VB-7263-0-x-P (Cast Bronze Body)

Standards: Pressure to ANSI B16.15 Class 250 with 400 psig up to 150°F decreasing to 310 psig at 340°F

**Notes**

- a. To minimize noise, ensure the flow rate in the piping is less than three meters (10ft)/second and the differential pressure is less than 35 psi (241 kpa). Operating within the cavitation zone or an operating differential pressure above 35 psi (241 kpa) may result in noise and internal valve damage.
- b. Maximum recommended differential pressure in open position. Do not exceed recommended differential pressure (pressure drop) , as integrity of parts may be affected. Exceeding maximum recommended differential pressure voids product warranty.
- c.  $kv = m^3/h (\Delta P = 100 \text{ kPa})$   $Cv = kvs \times 1.156$
- d. Requires properly conditioned water per EN-205 Water System Guideline, F-26080. Actuator close off force recommendations must be observed to meet ANSI Class V.



## Normal Position of Valve Actuator Assembly

Actuator Series °	Actuator Type	Required Valve Linkage	Normal Position	
Mx51-710x-xxx	Electric	None	Normally Closed	
Mx51-720x-xxx				
M900AR-xx-VB			Normally Open	
M900AE-xx-VB				
M900AR-xx			AV-821	Normally Closed
M900AE-xx			AV-821	Normally Open
MA-521X	Pneumatic	AV-7600 <sup>a</sup>	Normally Closed	
MK-2690		AV-7400		
MK-46x1		AV-401		
MK-66x1		AV-430		
MP-521x	Electric	AV-7600 <sup>a</sup>		
MP-541x		AV-7600 & AV-601		
MPR-561x				
MP-551x		None		
Mx-223x3, Mx-23xx3				
M400A-xx-VB, M800A-xx-VB, M1500A-xx-VB				
M400A-xx, M800A-xx, M1500A-xx	AV-821	None		
SmartX Damper Actuators <sup>b</sup>	AV-611 for 1/2" to 1-1/4" Valves		Normally Closed, Normally Open, or none	
SmartX Damper Actuators <sup>b</sup>	AV-602 for 1" to 2" Valves			

- a. High ambient temperatures with high media temperatures in the valve may require the use of the AV-601 in addition to the AV-7600.
- b. Refer to the the AV-611 General Instructions, F-27410 and the AV-602 General Instructions, F-26914 for compatible actuator information.
- c. See selection guides for application and close-off ratings.

### VB-7263-0-4-P

Valve Port Code (P)	Valve Size	Dimensions in Inches (mm)				
		A	B	C	D*	E
01, 02, 03, 04, 28, 30, 31, 33, 34, 36, 39	1/2"	3-1/16 (78)	1-1/4 (32)	1-11/16 (43)	3/4 (19)	7-16 (11)
05, 06, 41	3/4"	3-5/8 (92)	1-3/4 (45)	1-3/4 (45)	2 (51)	
07, 08, 51, 52	1"	4-5/8 (118)		1-3/4 (45)		
09, 61, 62, 63	1-1/4"	5-3/8 (137)	1-13/16 (49)	2-1/16 (54)		
10, 71, 72	1-1/2"			2-3/16 (56)		
11, 81, 82	2"	6-1/8 (156)	2-1/16 (53)	2-3/16 (56)		

\* Stem down

