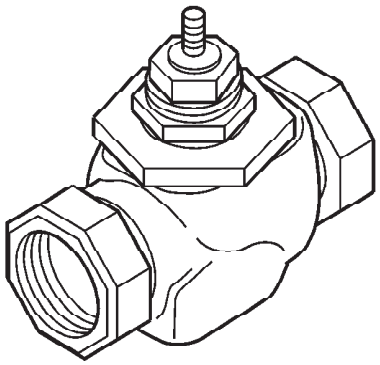
VB-7225 Series

15 mm to 50 mm Screwed R_p
Stem Up Closed (Normally Closed)
Two-Way Valves
General Instructions

Application

VB-7225 series single seat, stem up closed, two-way valves control water from -7 to 138°C or steam to 138°C maximum in heating or air conditioning systems. They are used for two-position or proportional control applications. Valve assemblies require an actuator and a valve linkage that must be purchased separately.



Danger: Do not use for combustible gas applications. The VB-7225 series valve packings are not rated for combustible gas applications, and if used in these applications, gas leaks and explosions could result.

Features

- Valve sizes 15 mm to 50 mm
- PN16 nominal pressure; also meets 250 psig pressure rating per ANSI Standards (B16.15–1985) for screwed cast bronze bodies
- Spring-loaded TFE packing
- End fittings Internal Parallel Pipe Thread per ISO 7/1, BS 21, JIS B0203

Applicable Literature

- Siebe Environmental Controls Catalog, F-25683
- Siebe Environmental Controls Cross-Reference Guide, F-23638
- Siebe Environmental Controls Reference Manual, F-21683
- Siebe Environmental Controls Application Manual, F-21335
- Control Valve Sizing, F-13755
- Valve Selection Chart for Steam, F-11366
- Valve Selection Chart for Water, F-11080
- EN-205 Water System Guidelines, F-26080

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SPECIFICATIONS

Table-1 Specifications/Models.

Specifications		Valve Body Series VB-7225-0-4-P
Service		Chilled or Hot Water and Steam
Flow Characteristics (Figure-1)		Equal Percentage
Action		Stem Up Closed
Sizes		15 mm to 50 mm
Type of End Fitting		Internal Parallel Pipe Thread per ISO 7/1, BS 21, JIS B0203
Valve Materials	**Body**	Bronze
	Seat	Bronze
	Stem	Stainless Steel
	Plug	Brass
	Packing	Spring-loaded TFE
	Disc	EPDM
Pressure Class		PN16 (16 Bar)[a]
Maximum Inlet Pressure, Steam		241 kPa
Allowable Control Media Temperature		-7 to 138°C
Allowable Differential Pressure for Water[b]		241 kPa Max. for Normal Life (refer to "Cavitation Limitations on Valve Pressure Drop" on page 7)
Allowable Differential Pressure for Steam[b]		138 kPa
Valve Size in mm (R_p)[c]	**k_{vs} Rating[d]**	**Complete Valve Body Part Number**
15 (1/2)	0.3	**VB-7225-0-4-1**
	1.1	**VB-7225-0-4-2**
	1.9	**VB-7225-0-4-3**
	3.8	**VB-7225-0-4-4**
20 (3/4)	4.8	**VB-7225-0-4-5**
	6.5	**VB-7225-0-4-6**
25 (1)	8.7	**VB-7225-0-4-7**
	12	**VB-7225-0-4-8**
32 (1-1/4)	17	**VB-7225-0-4-9**
40 (1-1/2)	24	**VB-7225-0-4-10**
50 (2)	35	**VB-7225-0-4-11**

[a] Also meets ANSI Class 250 (Figure-2)

[b] Maximum recommended differential pressure in open position. Do not exceed recommended differential pressure (pressure drop) or integrity of parts may be affected. Exceeding maximum recommended differential pressure voids product warranty.

[c] R_p = internal parallel pipe thread

[d] k_{vs} – m^3/h (ΔP – 100 kPa) C_v – k_{vs} x 1.156

Close-off Pressure Rating

The close-off pressure rating is dependent on the size of the valve, valve linkage, and actuator. Consult the **Siebe Environmental Controls Catalog, F-25683,** for close-off ratings.