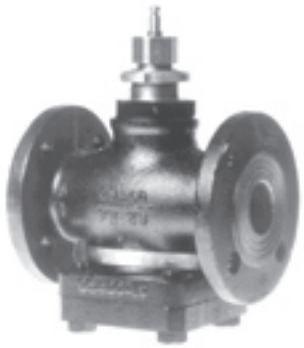
M 971
11.09.07 MC
REV. 01

2-PORT BALANCED PRESSURE FLANGED PN 25 (– 10 ... 230 °C) SEAT VALVES



VBS 2.. Eng

- **Body in UNI ISO 1083-400-15 nodular cast iron**
- **Spindle,seat and plug in AISI 303steel**
- **Flanged connections in PN 25**
- **Equipercentage control**
- **Leakage rate: 0.02 % Kvs**

CE

1. APPLICATION

The VBS 2.. valves are used for closing the superheated hot water flow or refrigerated water flow in heating, air-conditioning, district heating or steam sites.
They are operated by MVL/MVF linear actuators.
Permitted fluids:
– Superheated hot water max 230 °C
– Chilled water min. – 10 °C (max. 50% glycol)
– Steam max. 7 bar, absolute.

2. OPERATION

The closing element of the valve is an appropriately-machined plug which, operated by the linear movement of the actuator, blocks the water flow. The plug run varies between 16.5 ...25 mm according to the diameter (see table).
Control: equipercentage.

3. MODELS

Code	DN inches mm	Kvs(1) m³/h	Run mm	Suitable actuators MVL 06. 1.33 s./mm		MVF 004 1.33 s./mm	
				bar (2)	sec (3)	bar (2)	sec (3)
VBS 223	25	4.0	16.5	7	22	7	22
VBS 224	25	6.3	25	7	33	7	33
VBS 225	25	10	25	7	33	7	33
VBS 232	32	16	25	7	33	7	33
VBS 240	40	25	25	7	33	7	33
VBS 250	50	40	25	7	33	7	33
VBS 265	65	63	25	7	33	7	33

(1) : Kvs – Flow coefficient : flow in m³/h with open valve and pressure drop of 100 kPa. 100 kPa = 10 mWG = 1 bar
(2) : bar – Maximum pressure differential Δp max. permitted by actuator.
(3) : sec – Time necessary for actuator to make a complete run of the valve.
WARNING : 100 kPa = 10 mWG = 1 bar

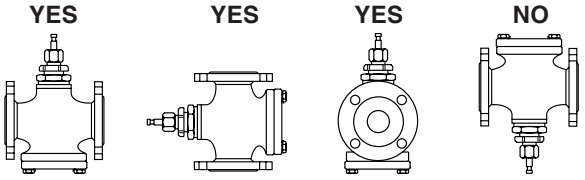
5.TECHNICAL DATA

Valve body	UNI ISO 1083 nodular cast iron
Seat, spindle and plug	AISI 303 steel
Spindle seals	O-Ring
Nominal pressure	25 bar (2500 kPa)
Fluid temperature	–10...230 °C
Run	16.5...25 mm
Control features	equipercentage
Control ratio	50:1
Leakage rate	0.02% Kvs
Connections	flanged PN 25 (ISO 7005/2)

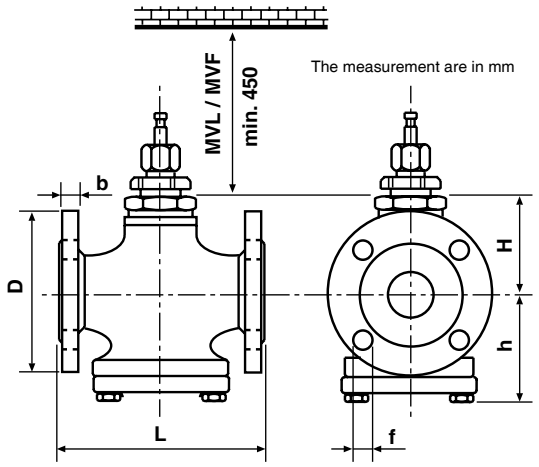
6. MOUNTING

Before mounting the valve ensure that in the pipework there is no extraneous matter such as residues from welding or threading. The pipework must not be subject to vibrations and must be perfectly aligned with the valve connections to avoid dangerous strains which could damage the valve. During installation pay attention to the direction of flow, indicated by an arrow on the body of the valve.
The valve can be installed in any position but with the spindle pointed downwards.

When installing make sure you leave enough space for the mounting of the actuator on the spindle side.



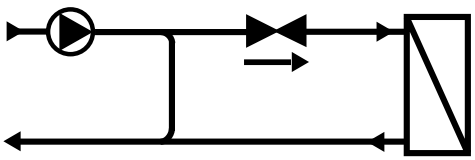
8. OVERALL DIMENSIONS



Model	L	H	h	D	b	f
VBS 223	160	83	83	115	18	4X14
VBS 224	160	83	83	115	18	4X14
VBS 225	160	83	83	115	18	4X14
VBS 232	180	123	102	140	18	4X18
VBS 240	200	123	104	150	18	4X18
VBS 250	230	123	110	165	20	4X18
VBS 265	270	147	124	185	22	8X18

4. FUNCTIONAL DIAGRAM

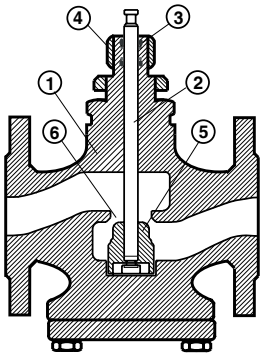
Sites closing



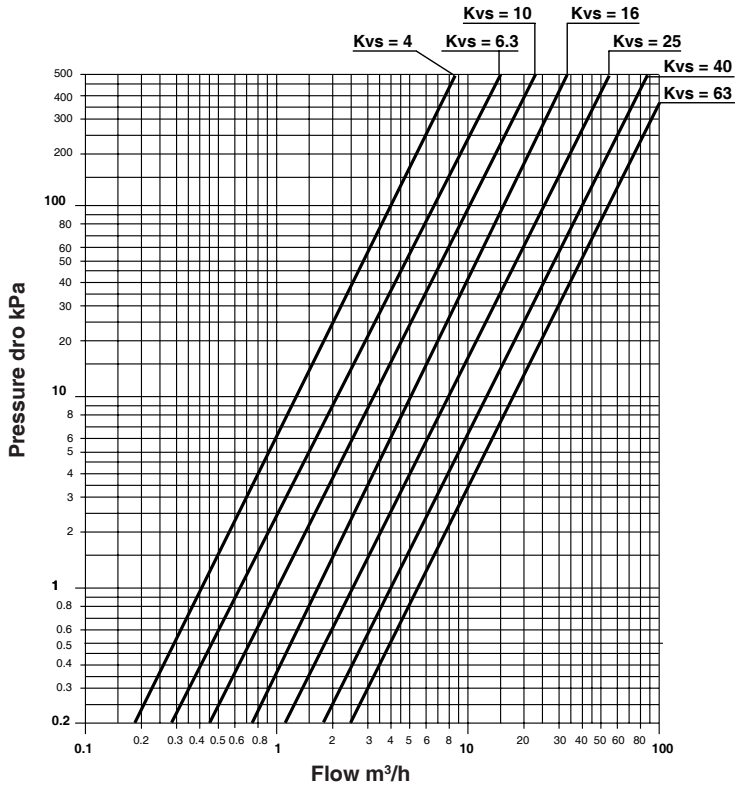
7. CONSTRUCTION

The valve body is made of UNI ISO 1083-400-15 nodular cast iron, seat, spindle and plug are in AISI 303 steel.
The spindle and balancing room are rendered watertight by O-Rings in teflon. The O-Rings of the spindle are held between cleaning rings. The whole thing is enclosed in a sealing block which is easily replaceable.
At the top of the valve there is the thread that allows the mounting and fixing of the actuator (MVL/MVF).

1 – Valve body
2 – Spindle
3 – O-Ring seal
4 – Seal nut
5 – Plug
6 – Seat



9. PRESSURE DROP



Kvs = Flow coefficient :Flow in m³/h with open valve and pressure drop of 100 kPa
100 kPa = 10 mWG = 1 bar

Amendment to data sheet

Date	**Revision No.**	Page	Section	Details of amendment
13.09.00 11.09.07 MC	**–** **01**	– All	General General	Original data sheet New page layout and change type actuator which can be used (from MVA to MVF)

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