

VFTRB2/VFTRB3

2- and 3-way control valves, DN25...DN40



The valves VFTRB2/VFTRB3 are used to control heating and cooling in climate, heating and ventilation systems. The valves have linear flow characteristics. They are intended to be used together with the SEZ4 actuators.

- For water and refrigerants (max. 50 % glycol)
- Media temperature 1...110°C
- Pressure rating PN16
- Rangeability 50:1
- For differential pressure up to 200 kPa
- 0 % leakage

Function

The 2-way valve is closed when the stem is in its highest position and completely open when the stem is in its lowest position.

The 3-way valve is open between the A - AB when the stem is in the lower position and closed between the ports B - AB. When the stem is in the upper position, the valve is closed between the ports A -AB and open between B -AB.

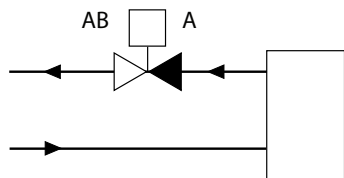


Fig. 1 . 2- way valve

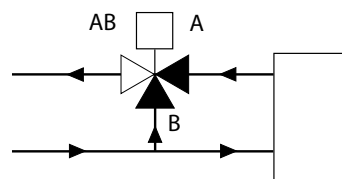


Fig. 2 . 3- way valve



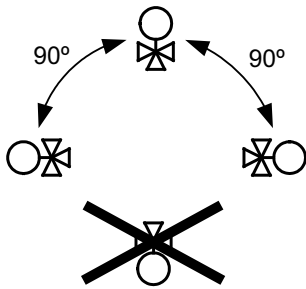
No leakage in closed position

The valve has O-ring sealing between plug and seat, which makes it completely tight in closed position. This makes the valve very energy-efficient.

Installation

The valves are delivered with a hand wheel, which can be used for manual control before an actuator has been mounted. Inlet ports are designated by letters A and B, while the outlet port is designated by AB.

Before installation of the control valves, ensure that the pipe is clean. Make sure that pipe scale, metal chips, welding slag and other foreign materials are removed. For maximum efficiency and minimum wear, install the valves in a vertical position with the stem pointing upward. If the valves are mounted with the actuator on the side, more wear is caused to the valve stuffing box. The valves should never be mounted at an angle of more than 90°.



- Install the valves according to the fluid direction arrow shown on the valves.
- Make sure there is ample space above the valves to facilitate easy removal of the valve actuator.
- Fit a strainer/filter upstream of the valves to prolong the equipment's life span.
- A water quality according to VDI 2035 is recommended.

Pressure drop diagrams

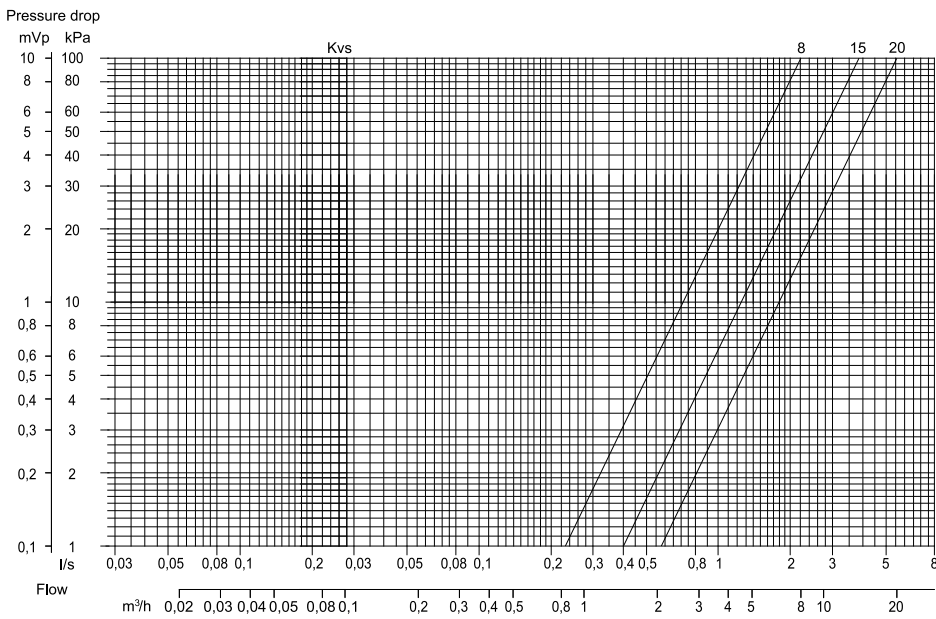


Fig. 3. Pressure drop diagram.

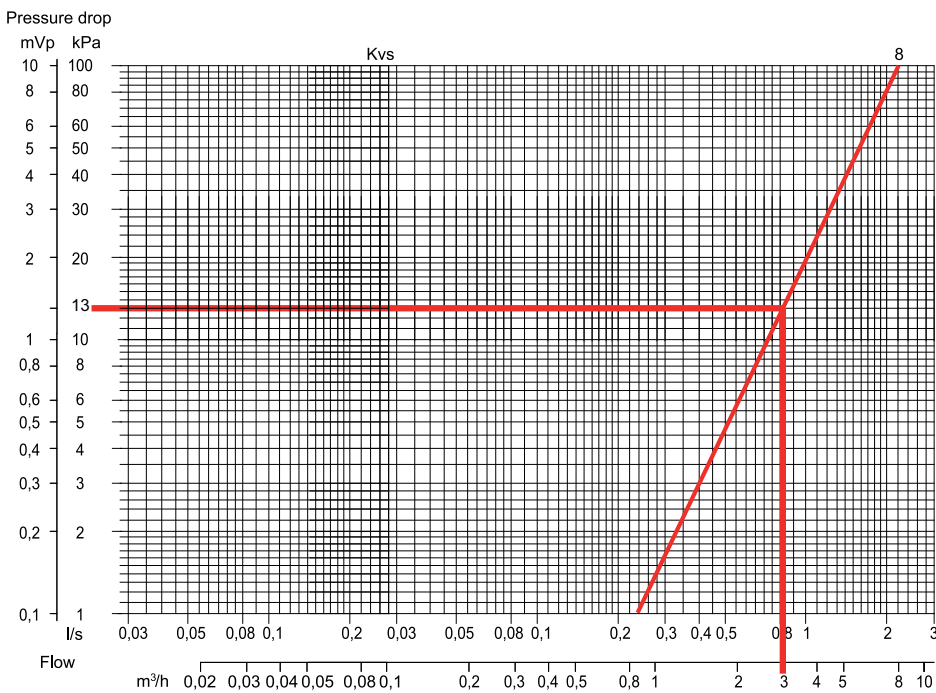


Fig. 4. Example: calculation of kv value. If the pressure drop is 13 kPa (A) and the flow is 3 m³/h (B), the kv value is 8 (C). See the markings in the picture.

Technical data

Application	Heating systems, cooling systems, fan-coil units, radiant cooling, ventilation systems
Pressure rating	PN16
Connection, actuator	M30 x 1.5
Connection	BPS internally threaded according to ISO 228/1
Flow characteristics	Linear
Max. leakage	0 % of the kvs value
Media temperature	1...110°C ¹⁾
Rangeability	50:1
Stroke	5.5 mm
Media	Hot, cold or glycol-mixed water (max. 50 % glycol)

¹⁾The max. temperature is 140°C for the valves and 110°C for the SEZ4 actuators.

Material

Body	Brass CW614N
Seat	Brass CW614N
Plug	Brass CW614N
Stem	Stainless steel 1.4305
Packing box	Brass with O-rings made of EPDM
O-rings	EPDM

Models 2- way valves

Article	Nominal diameter	Connection	Kvs	Max. diff. pressure	Actuator
VFTRB225-8	DN25	G1"	8 m ³ /h	200 kPa	SEZ4
VFTRB232-15	DN32	G1¼"	15 m ³ /h	150 kPa	SEZ4
VFTRB240-20	DN40	G1½"	20 m ³ /h	100 kPa	SEZ4

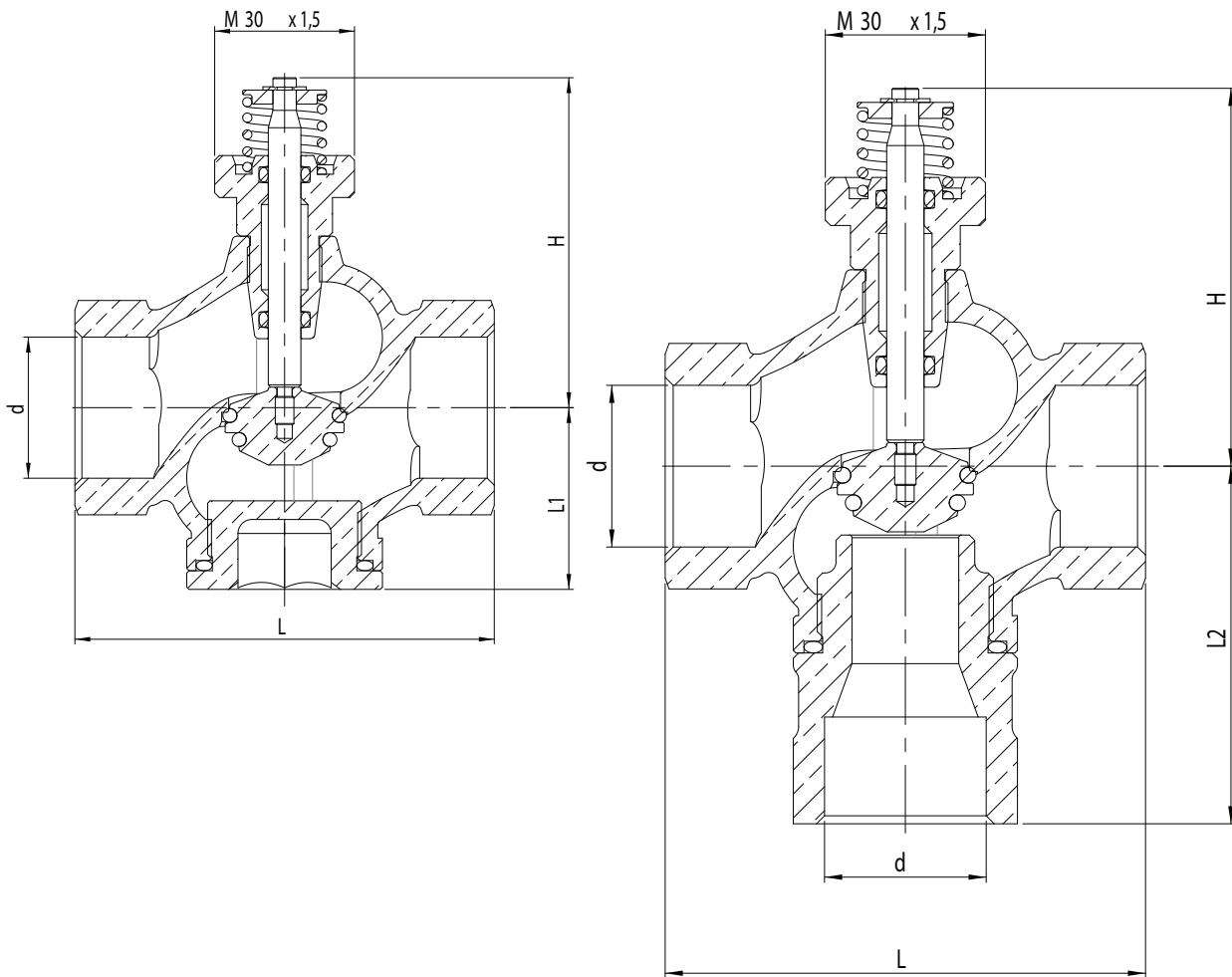
Models 3- way valves

Article	Nominal diameter	Connection	Kvs	Max. diff. pressure	Actuator
VFTRB325-8	DN25	G1"	8 m ³ /h	200 kPa	SEZ4
VFTRB332-15	DN32	G1¼"	15 m ³ /h	150 kPa	SEZ4
VFTRB340-20	DN40	G1½"	20 m ³ /h	100 kPa	SEZ4

Accessories

Article	Description
295135251	Hand wheel

Dimensions



2- way valve, VFTRB2

3- way valve, VFTRB3

[mm]

Model	d	L	L1	L2	H
DN25	G1"	90	39	67	70
DN32	G1¼"	105	45	75	72
DN40	G1½"	120	45	85	79

Documentation

All documentation can be downloaded from www.industrietechnik.it.

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