



## VFMD2/VFMD3

2- and 3-way externally threaded control valve

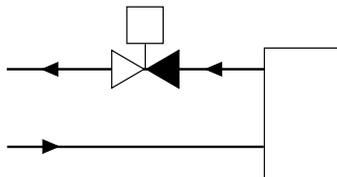
Externally threaded control valves intended for use in heating and cooling systems together with the SEZ4... series of electromechanical actuators.

- Size DN15...DN40
- Kvs value 0,25...25
- Media temperature 2...+110°C
- Pressure rating PN16
- Rangeability 50:1
- Supply complete with pipe fittings

### Function

#### 2-WAY VALVE

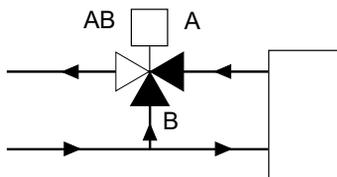
Stem in the lower position, the valve is open between the ports A - AB. Stem in the upper position, the valve is closed between the ports A - AB.



2-WAY VALVE

#### 3-WAY VALVE

Stem in the lower position, the valve is open between the A - AB and closed between the ports B - AB. Stem in the upper position, the valve is closed between the ports A - AB and open between B - AB.



3-WAY VALVE

### Installation

The valves are delivered with a screw joint that enables the valve to be quickly and easily installed in any suitable appliance. A hand wheel, which can be used to manually control the valve before an actuator has been mounted, is also part of the delivery. Inlet ports are designated by letters A and B, while the outlet port is designated by AB.

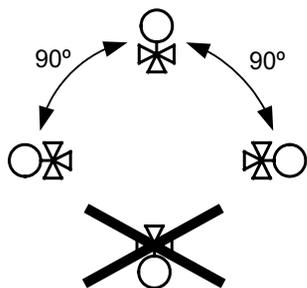
- Before installation of the control valve, ensure that the pipe is clean. Make sure that pipe scale, metal chips, welding slag and other foreign materials are removed.
- For maximum efficiency and minimum wear, install the valve in a vertical position with the stem pointing upward. If the valve is mounted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

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

## Technical data

<b>Application</b>	Heating systems, fan coil units, cooling systems, ventilation systems
<b>Pressure rating</b>	PN16
<b>Connection</b>	BSP externally threaded according to ISO 228/1
<b>Flow characteristics</b>	Linear
<b>Max. leakage</b>	0.0 % of kvs
<b>Media</b>	Hot water, cold water, glycol-mixed water (max. 50 % glycol)
<b>Media temperature</b>	2...110 °C
<b>Rangeability</b>	50:1
<b>Stroke</b>	5.5 mm

## Material

<b>Body</b>	Brass CW614N
<b>Seat</b>	Brass CW614N
<b>Plug</b>	Brass CW614N
<b>Stem</b>	Stainless steel 1.4305
<b>Seat packing</b>	EPDM
<b>O-rings</b>	EPDM

## Material, connections

<b>Nut</b>	Malleable cast iron, galvanized
<b>Nipple</b>	Dezincification resistant brass CW 602N (DN15-DN20) Malleable cast iron, galvanized (DN25-DN40)
<b>Fitting seal</b>	Novatec Premium 2, Nitrile bonded aramid fibre with graphite
<b>Cover lid</b>	Dezincification resistant brass CW 602N

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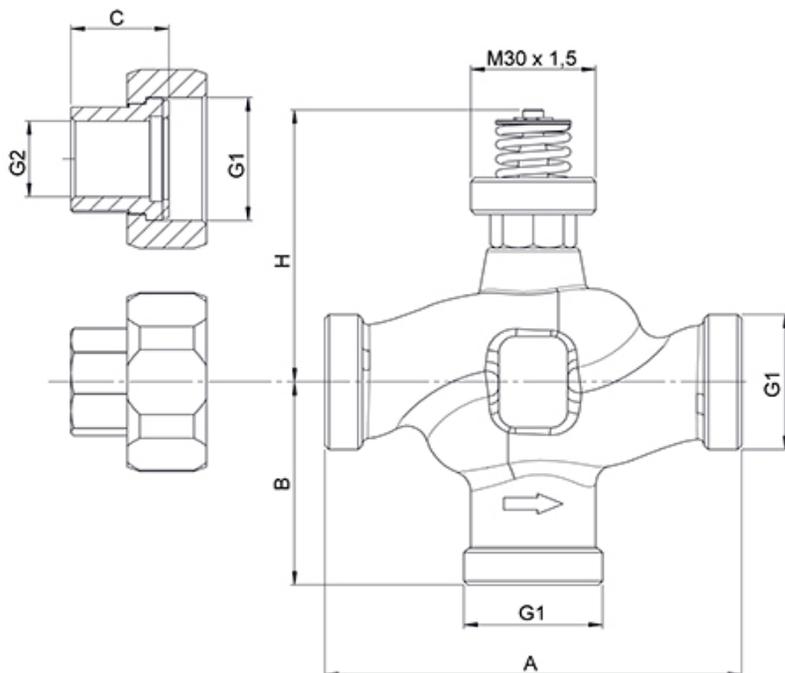
## 2-way valves

Article	Nominal diameter	Kvs	Max. diff. pressure	Actuator
VFMD215-0.25	DN15	0.25 m <sup>3</sup> /h	400 kPa	SEZ4
VFMD215-0.4	DN15	0.4 m <sup>3</sup> /h	400 kPa	SEZ4
VFMD215-0.6	DN15	0.6 m <sup>3</sup> /h	400 kPa	SEZ4
VFMD215-1.0	DN15	1.0 m <sup>3</sup> /h	400 kPa	SEZ4
VFMD215-1.6	DN15	1.6 m <sup>3</sup> /h	400 kPa	SEZ4
VFMD215-2.5	DN15	2.5 m <sup>3</sup> /h	400 kPa	SEZ4
VFMD215-4.0	DN15	4.0 m <sup>3</sup> /h	400 kPa	SEZ4
VFMD220-6.3	DN20	6.3 m <sup>3</sup> /h	350 kPa	SEZ4
VFMD225-10	DN25	10 m <sup>3</sup> /h	200 kPa	SEZ4
VFMD232-16	DN32	16 m <sup>3</sup> /h	130 kPa	SEZ4
VFMD240-25	DN40	25 m <sup>3</sup> /h	60 kPa	SEZ4

## 3-way valves

Article	Nominal diameter	Kvs	Max. diff. pressure	Actuator
VFMD315-0.25	DN15	0.25 m <sup>3</sup> /h	400 kPa	SEZ4
VFMD315-0.4	DN15	0.4 m <sup>3</sup> /h	400 kPa	SEZ4
VFMD315-0.6	DN15	0.6 m <sup>3</sup> /h	400 kPa	SEZ4
VFMD315-1.0	DN15	1.0 m <sup>3</sup> /h	400 kPa	SEZ4
VFMD315-1.6	DN15	1.6 m <sup>3</sup> /h	400 kPa	SEZ4
VFMD315-2.5	DN15	2.5 m <sup>3</sup> /h	400 kPa	SEZ4
VFMD315-4.0	DN15	4.0 m <sup>3</sup> /h	400 kPa	SEZ4
VFMD320-6.3	DN20	6.3 m <sup>3</sup> /h	350 kPa	SEZ4
VFMD325-10	DN25	10 m <sup>3</sup> /h	200 kPa	SEZ4
VFMD332-16	DN32	16 m <sup>3</sup> /h	130 kPa	SEZ4
VFMD340-25	DN40	25 m <sup>3</sup> /h	60 kPa	SEZ4

## Dimensions



DN	A	B	H	G1	G2	C
15	100	50	67	G 1"	G 1/2"	23.5
20	100	50	67	G 1 1/4"	G 3/4"	23.5
25	105	52.5	69	G 1 1/2"	G 1"	27
32	105	52.5	72	G 2"	G 1 1/4"	32

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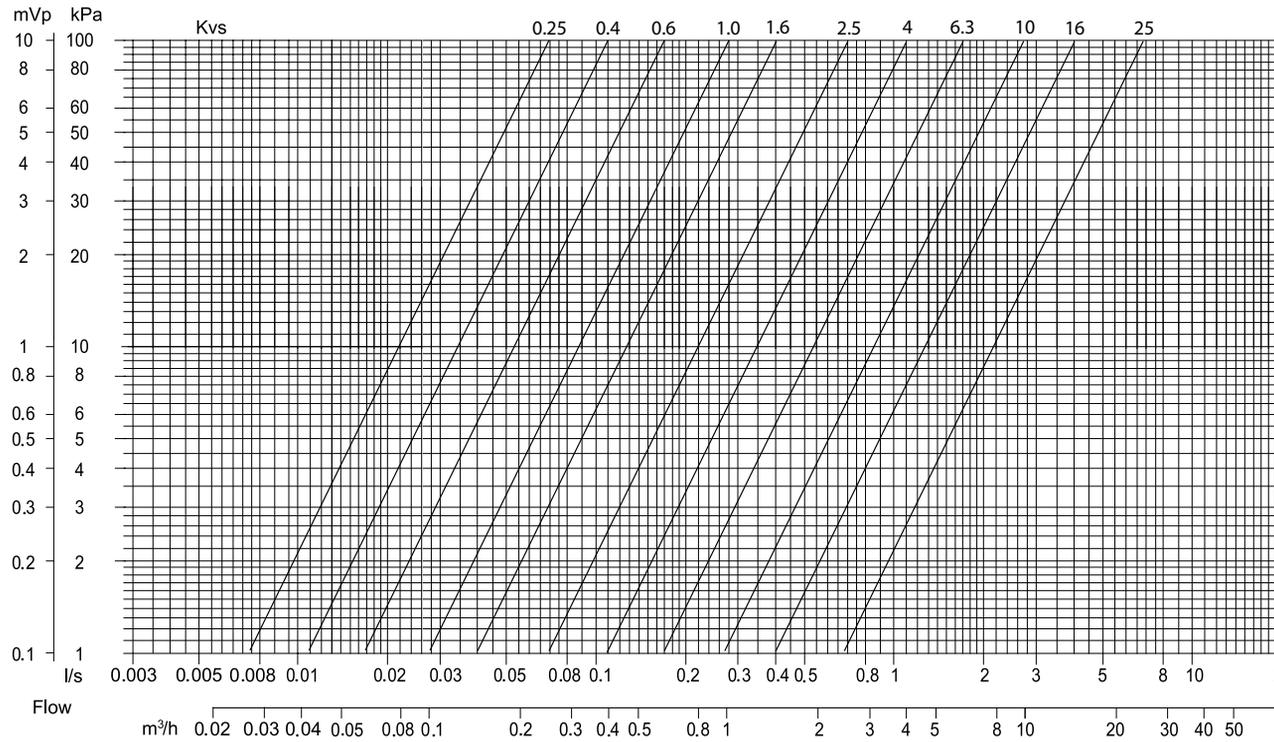
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40	130	62.5	76	G 2 ¼"	G 1 ½"	33.5
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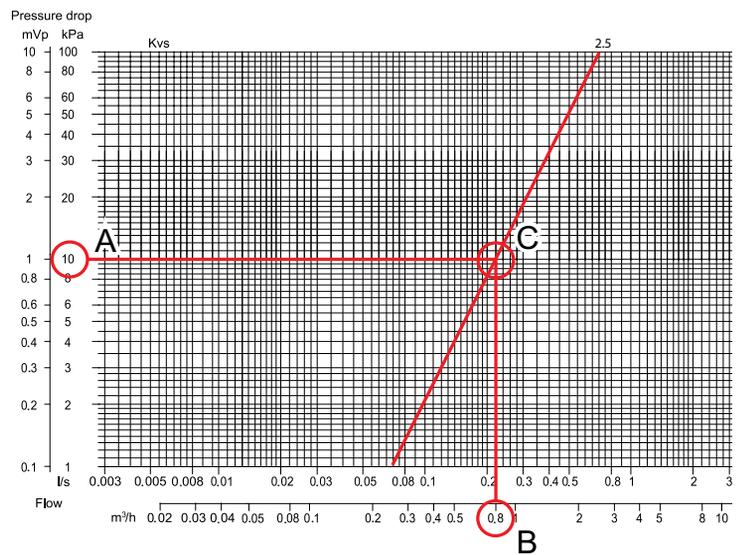
## Pressure drop curves

Pressure drop



### EXAMPLE: CALCULATION OF KV VALUE

If the pressure drop is 10 kPa (A) and the flow is 0.8 m<sup>3</sup>/h (B), the kv value is 2.5 (C). See the markings in the picture to the right.



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