



MTVS / MTRS

2- and 3-way control valves

The MTVS and MTRS range of valves are intended for use in heating and ventilation systems. They are also highly suitable for use in fresh water systems, as they are made of dezincification resistant brass and gunmetal.

- Size DN15–DN50
- Kvs value 0.63...39
- Rangeability 100:1

Function

2-way valve (MTVS)

The valve is closed when the stem is at its highest position.

3-way valve (MTRS)

Open between port A and port AB when the spindle is in its lowest position (is in this position closed between ports B and AB). Open between port B and port AB when the spindle is in its highest position (is in this position closed between ports A and AB).

See also drawing on page 2.

Conversion from 2-way into 3-way

The valve can be easily converted from 2-way into 3-way (and vice versa) without dismantling.

Actuators

MTVS and MTRS are intended for use together with RVA5... model actuators. Systemair also offers adapters for adjusting the valves for use with actuators of other brands.

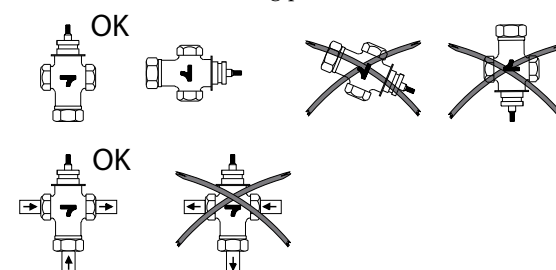
- Media temperature -5...+185°C
- For use in heating and ventilation systems
- Pressure class PN16

Installation

The valve is to be mounted according to the flow direction arrows on the valve.

The 2-way valve should be mounted with port A on the inlet and port AB on the return (flow direction A in, AB out) to ensure that the plug closes tightly and to prevent eventual noise when closing.

The 3-way valve is of a mixing type and must therefore be mounted in the mixing point.

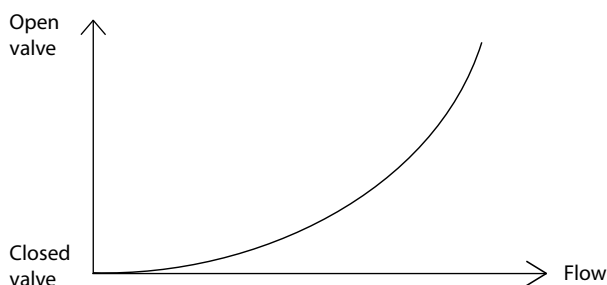


Material

The valves have body and plug in gunmetal and spindle in stainless steel. It has O-rings made of Viton.

Flow characteristics

The flow characteristic of the valve is equal percentage, in accordance with the figure below.



Models

2-way	Connection	Kvs	Max. diff. pressure
MTVS15-0,63	DN15	0.63	1.6 MPa
MTVS15-1,0	DN15	1.0	1.6 MPa
MTVS15-1,6	DN15	1.6	1.6 MPa
MTVS15-2,1	DN15	2.1	1.6 MPa
MTVS15-2,7	DN15	2.7	1.6 MPa
MTVS20-4,2	DN20	4.2	1.6 MPa
MTVS20-5,6	DN20	5.6	1.6 MPa
MTVS25-10	DN25	10	1.6 MPa
MTVS32-16	DN32	16	1.0 MPa
MTVS40-27	DN40	27	0.8 MPa
MTVS50-39	DN50	39	0.5 MPa

3-way	Connection	Kvs	Max. diff. pressure
MTRS15-0,63	DN15	0.63	1.6 MPa
MTRS15-1,0	DN15	1.0	1.6 MPa
MTRS15-1,6	DN15	1.6	1.6 MPa
MTRS15-2,1	DN15	2.1	1.6 MPa
MTRS15-2,7	DN15	2.7	1.6 MPa
MTRS20-4,2	DN20	4.2	1.6 MPa
MTRS20-5,6	DN20	5.6	1.6 MPa
MTRS25-10	DN25	10	1.6 MPa
MTRS32-16	DN32	16	1.0 MPa
MTRS40-27	DN40	27	0.8 MPa
MTRS50-39	DN50	39	0.5 MPa

Technical data

Flow characteristics	Equal percentage
Temperature range	-5...+185°C
Media	Hot, cold or glycol-mixed water and steam
Connection	Female thread
Stroke	20 mm
Max. leakage	0.1 % of kvs
Pressure rating	PN16
Rangeability	100:1

Material

Body and plug	Gunmetal 1400 LG2/stainless steel 304S15
Stem	Stainless steel 303S31
O-rings	Viton
Threading	The valves have female threaded connections according to ISO 228/1

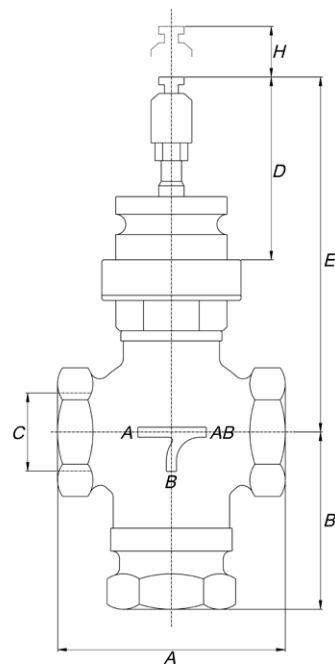
Dimensions

Measurements in mm unless otherwise specified.

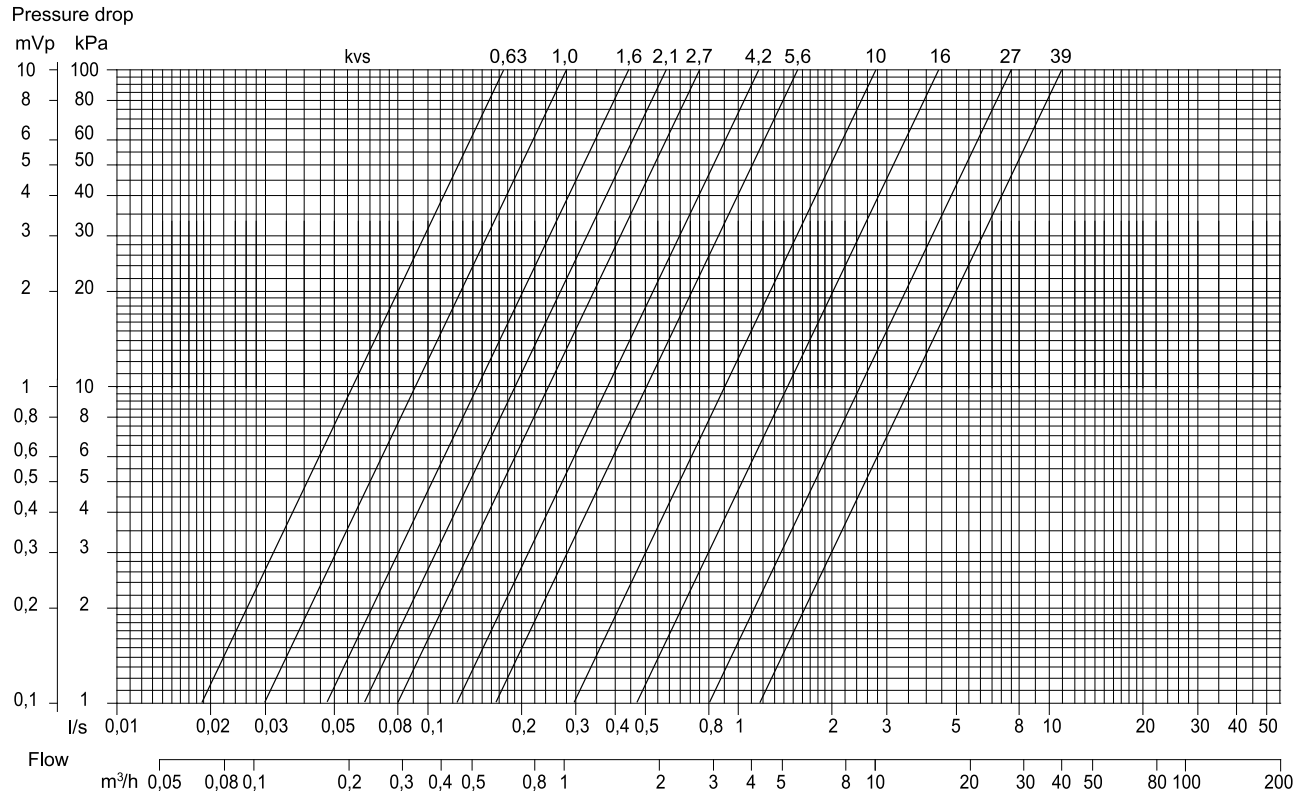
Model	A	B1	B2	C	D	E	H	Weight
MT...S15-0,63	70	51	70	G½"	70	133	20	1.3 kg
MT...S15-1,0	70	51	70	G½"	70	133	20	1.3 kg
MT...S15-1,6	70	51	70	G½"	70	133	20	1.3 kg
MT...S15-2,1	70	51	70	G½"	70	133	20	1.3 kg
MT...S15-2,7	70	51	70	G½"	70	133	20	1.3 kg
MT...S20-4,2	80	53	70	G¾"	70	133	20	1.5 kg
MT...S20-5,6	80	53	70	G¾"	70	133	20	1.5 kg
MT...S25-10	90	54	70	G1"	70	138	20	1.7 kg
MT...S32-16	115	56	80	G1¼"	70	142	20	2.3 kg
MT...S40-27	130	69	80	G1½"	70	147	20	3.3 kg
MT...S50-39	160	73	95	G2"	70	157	20	5.0 kg

The B1 measurement applies to MTVS.

The B2 measurement applies to MTRS.



Pressure drop diagram



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