



- For water and cooling media (max 30% glycol)
- Media temperature 1...110°C
- Pressure class PN16

The control valves in the ZTV/ZTR series are available in 2- and 3-way versions. Body in brass, spindle in stainless steel. Plug in brass and O-ring in EPDM.

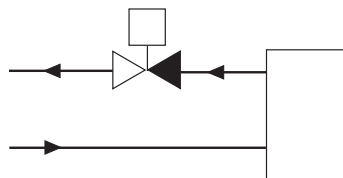
The valves have equal percentage flow characteristics.

### Function

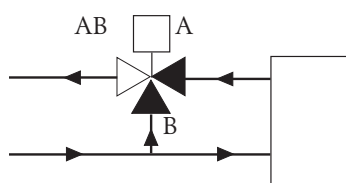
The 2-way valve is closed when the spindle is placed in the highest position and completely open in the lowest position.

The 3-way valve is closed between port A and AB (the ports placed opposite of each other) when the spindle is in the highest position. While in this position, the valve is open between the lowest port B and the joint outgoing port AB.

When the spindle is in its lowest position, the 3-way valve is completely open between port A and AB and thereby closed between the lowest port B and the joint port AB.



2-way valve



3-way valve

# ZTV/ZTR

## Zone valves, 2-way and 3-way DN15...DN20

The valves in the ZTV/ZTR series are used for controlling hot and cold water in climate, heating and ventilation systems.

- Rangeability better than 50:1
- Differential pressure up to 350 kPa
- No leakage when the valve is closed.

### Sizes

The valves are available with Kvs values from 0.25 (DN15) to 6.0 (DN20).

### Installation

The valve should be mounted with the spindle in a vertical position or 90° to the right or left. It must not be mounted with the spindle downwards.

At high media temperature, the valve should be mounted with the spindle at the side to reduce heating of the valve actuator.

To make sure that the plug is leak proofed, mount the 2-way valve so that the arrow on the body is directed downstream.

The 3-way valve is of mixing type and should therefore be mounted in the mixing point, according to the flow direction marks on the valve.

### Typical usage

The valves are used for controlling hot and cold water in heating, ventilation and indoor climate systems. They can also control cryogenic agents in for example liquid connected recovery systems.

### Valve actuators

The valves are intended to be used together with actuator RVAZ4-24A (0...10 V) or RVAZ4-24 (3-point).

## Models

2-way valves	Connection	Kvs	Max. diff. pressure	3-way valves	Connection	Kvs	Max. diff. pressure
ZTV15-0,25	DN15	0.25	350 kPa	ZTR15-0,25	DN15	0.25	350 kPa
ZTV15-0,4	DN15	0.4	350 kPa	ZTR15-0,4	DN15	0.4	350 kPa
ZTV15-0,6	DN15	0.6	350 kPa	ZTR15-0,6	DN15	0.6	350 kPa
ZTV15-1,0	DN15	1.0	350 kPa	ZTR15-1,0	DN15	1.0	350 kPa
ZTV15-1,6	DN15	1.6	350 kPa	ZTR15-1,6	DN15	1.6	350 kPa
ZTV20-2,0	DN20	2.0	250 kPa	ZTR20-2,0	DN20	2.0	250 kPa
ZTV20-2,5	DN20	2.5	250 kPa	ZTR20-2,5	DN20	2.5	250kPa
ZTV20-4,0	DN20	4.0	150 kPa	ZTR20-4,0	DN20	4.0	100 kPa
ZTV20-6,0	DN20	6.0	150 kPa	ZTR20-6,0	DN20	6.0	100 kPa

## Technical data

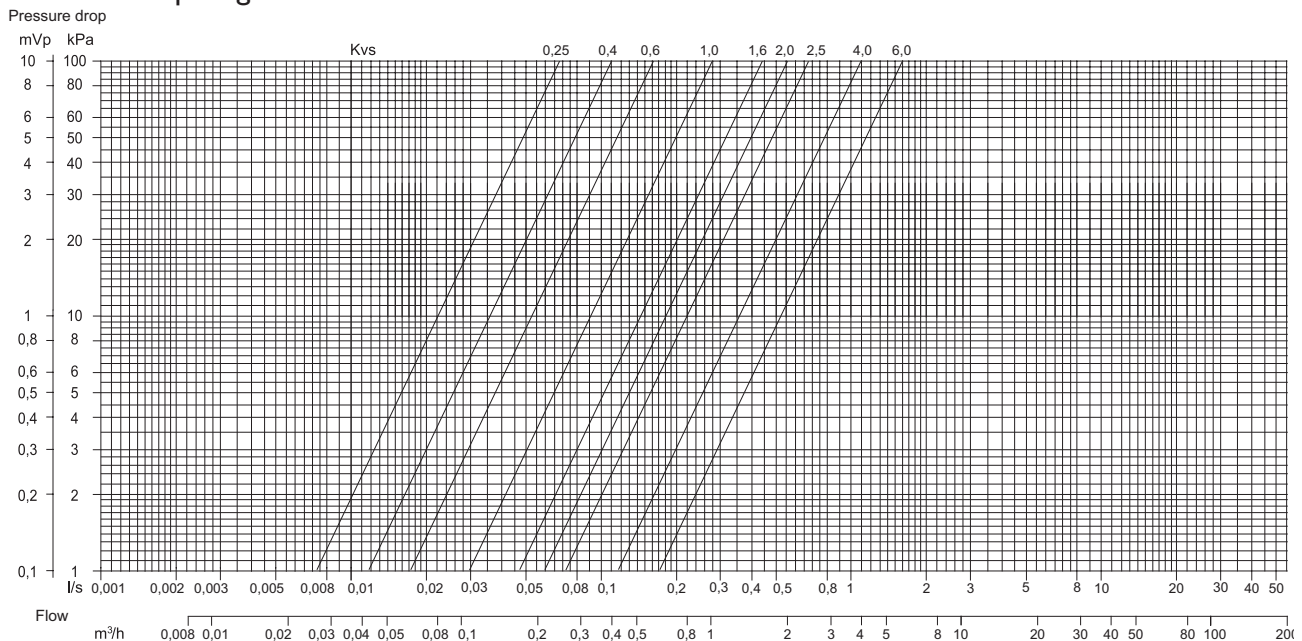
Pressure class	PN16 (1.6 MPa)
Connection	External thread, see table below
Flow characteristics	Equal percentage
Rangeability	50:1
Stroke	5.5 mm
Leakage	0% in closed position
Media	Hot or cold water. Also cryogenic agents with glycol (max. 30%).
Media temperature	1...110°C *
Material	
Body	Brass
Spindle	Stainless steel
Seat	Brass
O-ring	EPDM

\* The material in the valve has a max temperature 140°C, actuator RVAZ4- ... has a max media temperature +110°C.

## Overview suitable actuators

Model	Control signal	Supply
RVAZ4-24	3-point	24 V AC
RVAZ4-24A	0...10 V	24 V AC

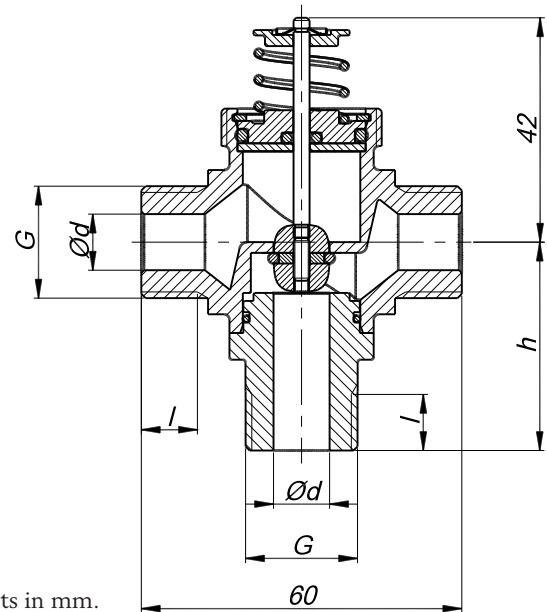
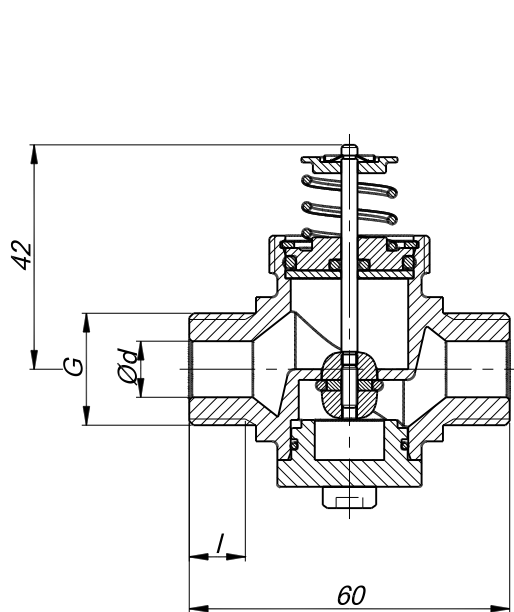
## Pressure drop diagram



## Measure table

2-way valves	Connection	G	l
ZTV15-0,25	DN15	1/2"	9
ZTV15-0,4	DN15	1/2"	9
ZTV15-0,6	DN15	1/2"	9
ZTV15-1,0	DN15	1/2"	9
ZTV15-1,6	DN15	1/2"	9
ZTV20-2,0	DN20	3/4"	12.5
ZTV20-2,5	DN20	3/4"	12.5
ZTV20-4,0	DN20	3/4"	11.5
ZTV20-6,0	DN20	3/4"	11.5

3-way valves	Connection	G	l	h
ZTR15-0,25	DN15	1/2"	9	40
ZTR15-0,4	DN15	1/2"	9	40
ZTR15-0,6	DN15	1/2"	9	40
ZTR15-1,0	DN15	1/2"	9	40
ZTR15-1,6	DN15	1/2"	9	40
ZTR20-2,0	DN20	3/4"	12.5	40
ZTR20-2,5	DN20	3/4"	12.5	40
ZTR20-4,0	DN20	3/4"	11.5	50
ZTR20-6,0	DN20	3/4"	11.5	50



Measurements in mm.