



RTV

2-way zone valve

Range of zone valves for control in aftertreatment systems. The valve can control water flow to cooling and heating batteries, radiators, convectors, chilled ceilings etc. and is intended to be used in conjunction with the RTA(O)MI00 thermal actuators.

- ✓ Size DN10 and DN15
- ✓ Kvs value 1.2 and 1.4
- ✓ Media temperature 5...100°C
- ✓ Pressure rating PN10
- ✓ Compact design

Function

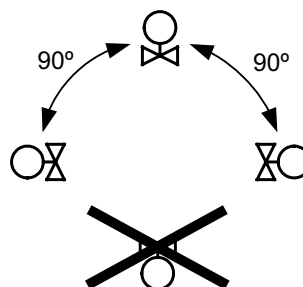
The valve is normally open. When using a NC actuator the valve is closed when no voltage is applied. Using a NO actuator will give the opposite result.

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

Installation

The valves are supplied with a grey plastic cap which can be used to open/close the valve manually during system installation. Turning the plastic cap clockwise to its end position closes the valve.

- 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.
- The valve should never be mounted at an angle of more than 90°.



- Install the valve according to the fluid direction arrow shown on the valve.
- The actuator is mounted on the valve with the adapter (VA54) which is sold separately.

Technical data

Application	Heating systems, cooling systems, radiators, radiant cooling, ventilation systems
Pressure rating	PN10
Connection, actuator	M28 x 1.5
Max. leakage	0 % of the kvs value
Media	Hot water, cold water, glycol-mixed water (max. 30 % glycol)
Media temperature	5...100 °C
Stroke	1.7 mm

Material

Body	Chromed brass CW614N
Seat	Brass CW614N
Stem	Stainless steel 1.4305
O-rings	EPDM
Bonnet	Brass CW614N
Seat packing	NBR

Models

Article	Nominal diameter	Connection, internal thread	Connection, external thread	Kvs	ΔP_{max}	ΔP_s	Actuator	Adapter
RTV10	DN10	G3/8" (inlet)	M22 x 1.5 (outlet)	1.2	30 kPa	150 kPa	RTA(O)M	VA54
RTV15	DN15	G1/2" (inlet)	M26 x 1.5 (outlet)	1.4	30 kPa	150 kPa	RTA(O)M	

ΔP_s constitutes the max. permitted differential pressure at which the valve actuator can safely close against the pressure.

ΔP_{max} constitutes the max. permitted differential pressure over the flow path of the valve for the entire actuating range of the actuator (i.e. open valve).

Valve connections, outlet

Article	Description	Connection	Valve
4161201	Tail and nut, for valve outlet (external metric thread on the valve)	3/8" (M22 x 1.5)	RTV10, FVR10
4161202	Tail and nut, for valve outlet (external metric thread on the valve)	1/2" (M26 x 1.5)	RTV15, FVR15

Valve connections, outlet, copper tubing

Article	Description	Connection	Valve
4161841	Nut and olive, for valve outlet (external metric thread on the valve)	3/8" (M22 x 1.5), K12	RTV10, FVR10
4160801	Nut and olive, for valve outlet (external metric thread on the valve)	1/2" (M26 x 1.5), K15	RTV15, FVR15

Valve connections, inlet, copper tubing

Article	Description	Connection	Valve
4161402	Nut and olive, for valve inlet (internal pipe thread on the valve)	3/8", K10	RTV10, FVR10
4161403	Nut and olive, for valve inlet (internal pipe thread on the valve)	3/8", K12	RTV10, FVR10
4161101	Nut and olive, for valve inlet (internal pipe thread on the valve)	1/2", K10	RTV15, FVR15
4161102	Nut and olive, for valve inlet (internal pipe thread on the valve)	1/2", K12	RTV15, FVR15
4161103	Nut and olive, for valve inlet (internal pipe thread on the valve)	1/2", K15	RTV15, FVR15

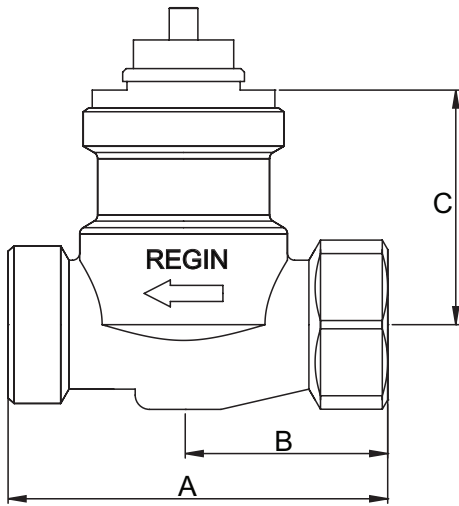


Suitable valve actuators

Valve actuator	Supply voltage	Control signal
RTAM100-24	24 V AC/DC	On/off, NC
RTAOM100-24	24 V AC/DC	On/off, NO
RTAM100-24A	24 V AC	0...10 V DC, NC
RTAOM100-24A	24 V AC	0...10 V DC, NO
RTAM100-230	230 V AC	On/off, NC
RTAOM100-230	230 V AC	On/off, NO



Dimensions

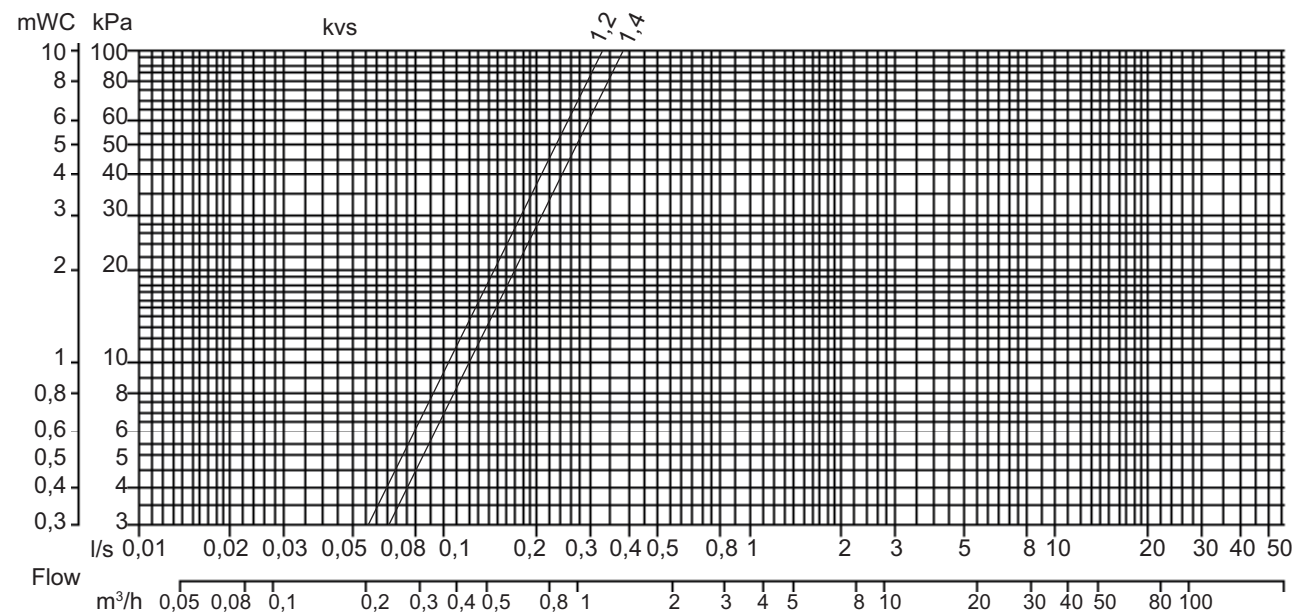


Model	A	B	C	Weight (g)
RTV10	53	29	33	179
RTV15	58	32	32	218

Measurements in mm unless otherwise specified.

Pressure drop diagram

Pressure drop



Example: calculation of kv value

If the pressure drop is 5 kPa (A) and the flow is 0.3 m³/h (B), the kv value is 1.4 (C). See the markings in the picture to the right.

