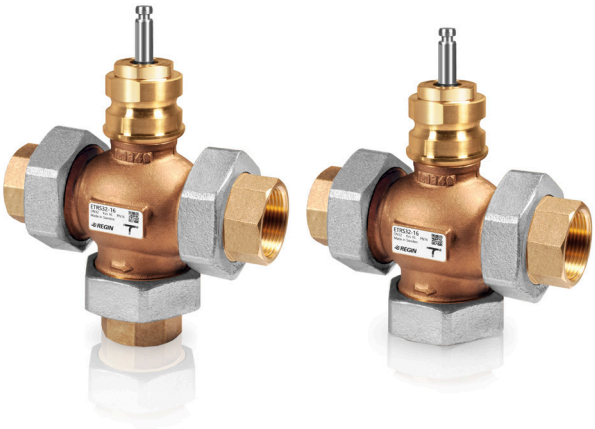


ETRS

Externally threaded control valve, manually convertible to either 2-way or 3-way (selectable)

Valves intended for control of cold, hot and glycol-mixed water in heating, ventilation and DZR requirement systems. The valves are intended to be used together with Regin's RVAN actuators. The valve is supplied with a cover lid for converting the 3-way valve into a 2-way valve.

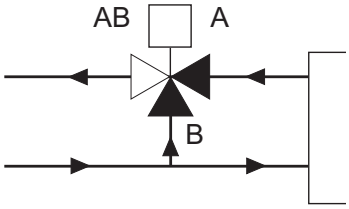
- ✓ Size DN15…DN50
- ✓ Kvs value 0.63…40
- ✓ Media temperature -5…+150°C
- ✓ Pressure rating PN16
- ✓ Can be used in DZR systems
- ✓ Supplied complete with pipe fittings and blanking cover lid

Function

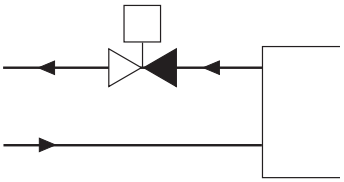
The valve is supplied with a cover lid, enabling the user to easily convert it either into a 2-way valve or a 3-way valve.

If the valve is configured as a 3-way valve, it is open between port A and port AB (the ports opposite to one another) when the stem is in its lowest position. In this position, the valve is also closed between the bottom port B and the common supply port AB. When the stem is in its highest position, the 3-way valve is completely closed between port A and port AB and consequently open between the bottom port B and the common port AB.

If the valve is configured as a 2-way valve, it is open between ports A and AB when the stem is at its lowest position (and closed between ports B and AB).



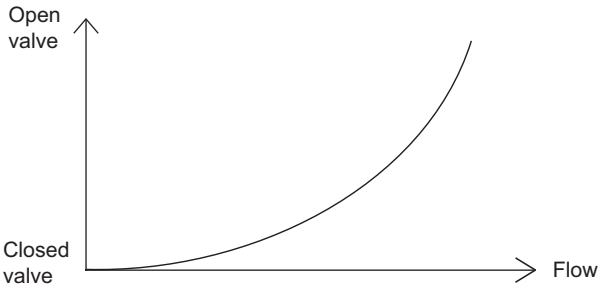
3-way valve



2-way valve

Flow characteristics

The flow type is equal percentage according to the figure below.



Installation

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

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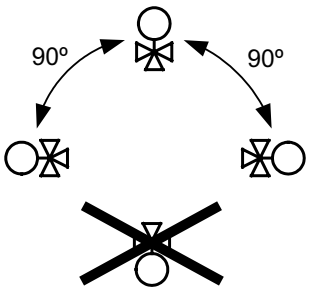
- Before installation of the control valve, ensure that the pipe is clean. Make sure that pipe scale, metal chips, welding slag and other foreign materials are removed.
- For maximum efficiency and minimum wear, install the valve in a vertical position with the stem pointing upward. If the valve is mounted 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°.



- 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

Application	Heating, cooling, ventilation systems and systems requiring DZR-materials
Pressure rating	PN16
Connection	BSP externally threaded according to ISO 228/1; supplied with threaded connections
Flow characteristics	Equal percentage
Max. leakage	0.1 % of the kvs value
Media	Hot, cold or glycol-mixed water (max. 50 % glycol)
Media temperature	-5…+150 °C
Rangeability	100:1
Stroke	20 mm

Material

Body	Gunmetal CC491K (RG5)
Seat	Gunmetal CC491K (RG5)
Plug	Gunmetal CC491K (RG5)
Stem	Stainless steel 1.4305
Packing box	Dezincification resistant brass CW511L
O-rings	EPDM

Material, connections

Nut	Malleable cast iron, galvanized
Nipple	Dezincification resistant brass CW511L
Fitting seal	Novatec Premium 2, Nitrile bonded aramid fibre with graphite
Cover lid	Dezincification resistant brass CW511L

Models

Article	Nominal diameter	Kvs
ETRS15-0,63	DN15	0.63
ETRS15-1,0	DN15	1
ETRS15-1,25	DN15	1.25
ETRS15-1,6	DN15	1.6
ETRS15-2,5	DN15	2.5
ETRS15-4,0	DN15	4
ETRS20-4,0	DN20	4
ETRS20-5,0	DN20	5
ETRS20-6,3	DN20	6.3
ETRS25-6,3	DN25	6,3
ETRS25-8,0	DN25	8
ETRS25-10	DN25	10
ETRS32-10	DN32	10
ETRS32-12,5	DN32	12.5
ETRS32-16	DN32	16
ETRS40-16	DN40	16
ETRS40-20	DN40	20
ETRS40-25	DN40	25
ETRS50-25	DN50	25
ETRS50-31,5	DN50	31.5
ETRS50-40	DN50	40

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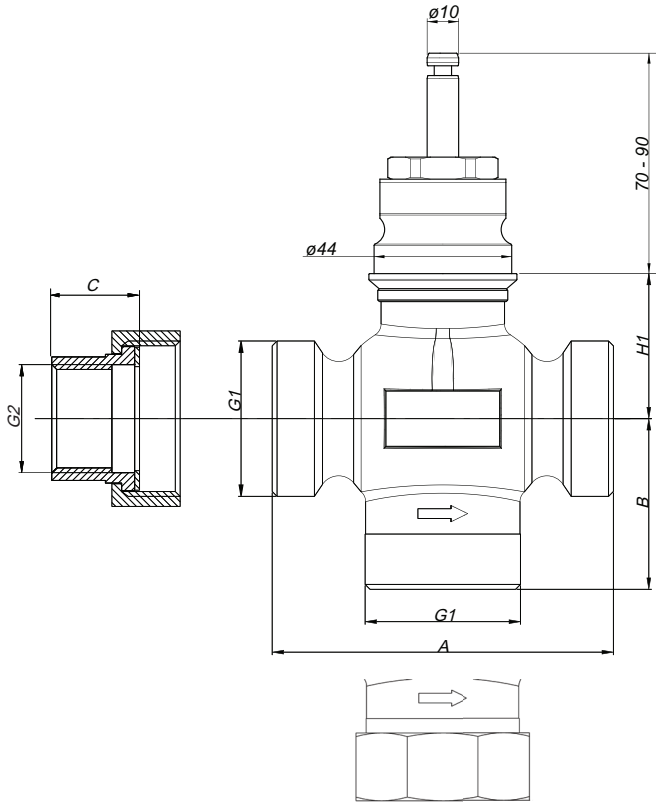
Combination options (valves and actuators) and differential pressure

Type	ΔPs (RVAN5...)	ΔPmax (RVAN5...)	ΔPs (RVAN10...)	ΔPmax (RVAN10...)
ETRS15-0,63	1600 kPa	700 kPa	1600 kPa	700 kPa
ETRS15-1,0	1600 kPa	700 kPa	1600 kPa	700 kPa
ETRS15-1,25	1600 kPa	700 kPa	1600 kPa	700 kPa
ETRS15-1,6	1600 kPa	700 kPa	1600 kPa	700 kPa
ETRS15-2,5	1600 kPa	700 kPa	1600 kPa	700 kPa
ETRS15-4,0	1600 kPa	700 kPa	1600 kPa	700 kPa
ETRS20-4,0	1000 kPa	600 kPa	1600 kPa	600 kPa
ETRS20-5,0	1000 kPa	600 kPa	1600 kPa	600 kPa
ETRS20-6,3	1000 kPa	600 kPa	1600 kPa	600 kPa
ETRS25-6,3	600 kPa	500 kPa	1400 kPa	500 kPa
ETRS25-8,0	600 kPa	500 kPa	1400 kPa	500 kPa
ETRS25-10	600 kPa	500 kPa	1400 kPa	500 kPa
ETRS32-10	400 kPa	400 kPa	800 kPa	450 kPa
ETRS32-12,5	400 kPa	400 kPa	800 kPa	450 kPa
ETRS32-16	400 kPa	400 kPa	800 kPa	450 kPa
ETRS40-16	300 kPa	300 kPa	600 kPa	400 kPa
ETRS40-20	300 kPa	300 kPa	600 kPa	400 kPa
ETRS40-25	300 kPa	300 kPa	600 kPa	400 kPa
ETRS50-25	200 kPa	200 kPa	400 kPa	300 kPa
ETRS50-31,5	200 kPa	200 kPa	400 kPa	300 kPa
ETRS50-40	200 kPa	200 kPa	400 kPa	300 kPa

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

ΔPmax 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).

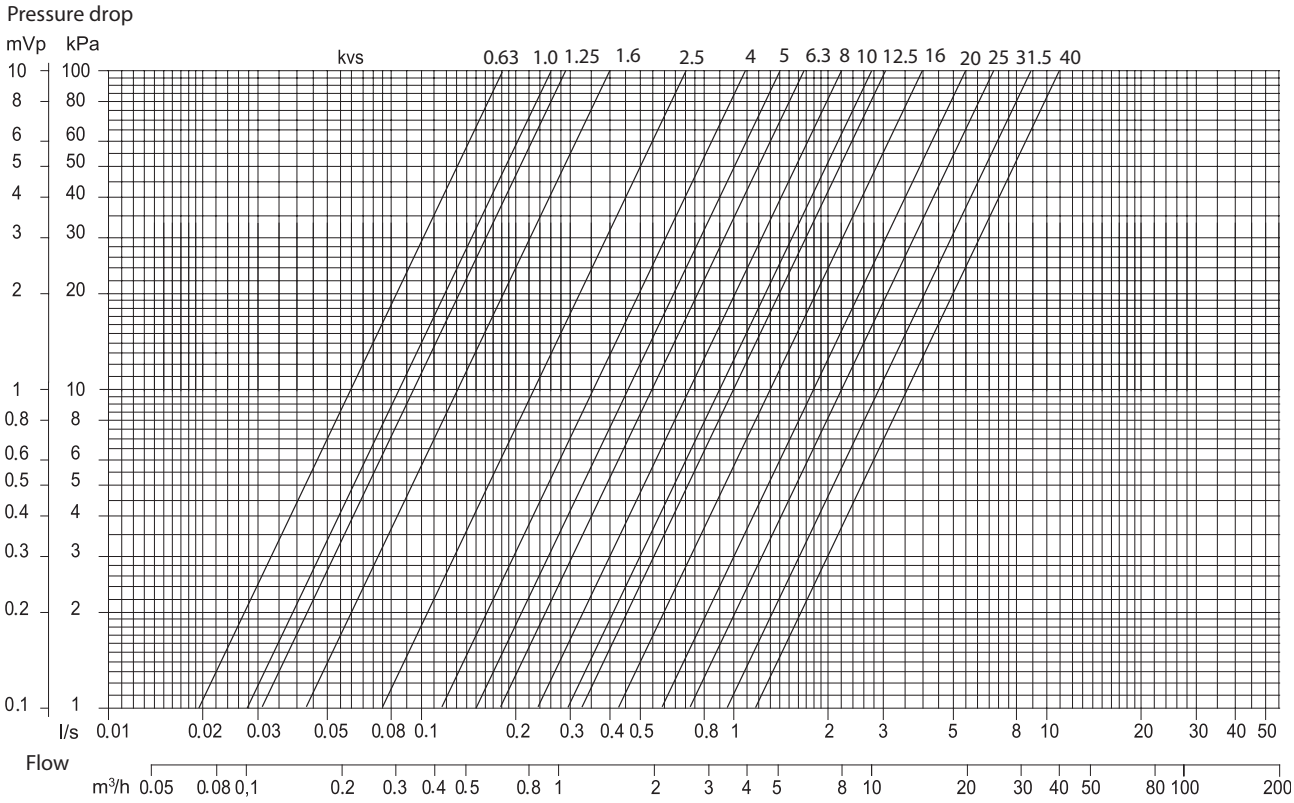
Dimensions



DN	A	B	H1	G1	G2	C
15	100	50	37.5	G 1"	G 1/2"	23,5
20	100	50	37.5	G 1 1/4"	G 3/4"	23,5
25	105	52,5	43.5	G 1 1/2"	G 1"	27
32	105	52,5	43.5	G 2"	G 1 1/4"	32
40	130	65	53.5	G 2 1/4"	G 1 1/2"	33,5
50	150	75	59.5	G 2 3/4"	G 2"	36,5

Measurements in mm unless otherwise specified.

Pressure drop diagram



Example: calculation of kv value

If the pressure drop is 7 kPa (A) and the flow is 4 m³/h (B), the kv value is 16 (C). See the markings in the picture to the right.