



ETVS

Externally threaded 2-way valve



2-way valves designed for control of cold, hot or glycol-mixed water, for use in DZR requirement systems or district heating within the temperature range $-5^{\circ}\text{C} \dots +150^{\circ}\text{C}$. They are pressure balanced (from DN20-50, not DN15) and can therefore handle high differential pressure with low force. The valves are intended to be used together with Regin's RVAN5 actuators. We also offer adapters for actuators of other brands.

- ✓ Size DN15...DN50
- ✓ Kvs value 0.25...40
- ✓ Media temperature $-5 \dots +150^{\circ}\text{C}$
- ✓ Pressure rating PN16
- ✓ No leakage
- ✓ Pressure balanced
- ✓ Can be used in DZR systems
- ✓ Supplied complete with pipe fittings

Function

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

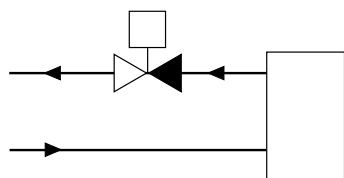
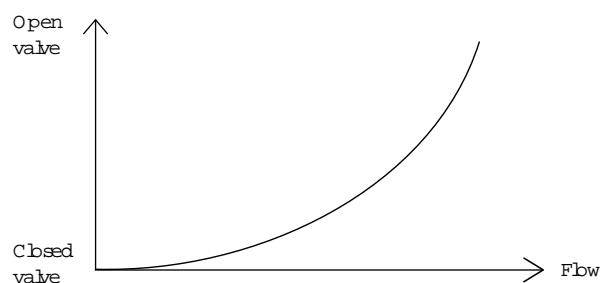


Fig. 1 2-way valve

The valve is pressure balanced and can therefore handle high differential pressure with low actuating force. This means that an actuator with low force can be used.

Flow characteristic

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



HEAD OFFICE SWEDEN

Phone: +46 31 720 02 00

Web: www.regincontrols.com

E-mail: info@regincontrols.com

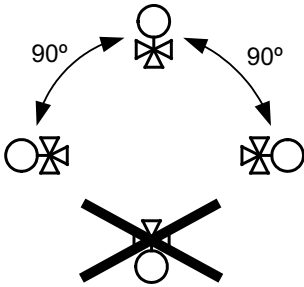
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Installation

- ✓ 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, district heating and district cooling system 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	0.0 % of the kvs value (PTFE gasket, carbon-filled 25 %, no leakage)
Media	Hot water, cold water, glycol-mixed water (max. 50 % glycol)
Media temperature	-5...+150 °C
Rangeability	100:1
Stroke	20 mm
Max. diff. pressure	1600 kPa

Material

Body	Gunmetal CC491K (RG5)
Seat	Stainless steel 1.4301
Plug	Stainless steel 1.4305
Stem	Stainless steel 1.4305
Seat packing	PTFE with 25 % carbon
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

Models

Article	Nominal diameter	Kvs	Actuator
ETVS15-0,25	DN15	0,25	RVAN5
ETVS15-0,4	DN15	0,4	RVAN5
ETVS15-0,63	DN15	0,63	RVAN5
ETVS15-1,0	DN15	1,0	RVAN5
ETVS15-1,25	DN15	1,25	RVAN5
ETVS15-1,6	DN15	1,6	RVAN5
ETVS15-2,5	DN15	2,5	RVAN5
ETVS15-4,0	DN15	4,0	RVAN5
ETVS20-5,0	DN20	5,0	RVAN5
ETVS20-6,3	DN20	6,3	RVAN5
ETVS25-8,0	DN25	8,0	RVAN5
ETVS25-10	DN25	10	RVAN5
ETVS32-12,5	DN32	12,5	RVAN5
ETVS32-16	DN32	16	RVAN5

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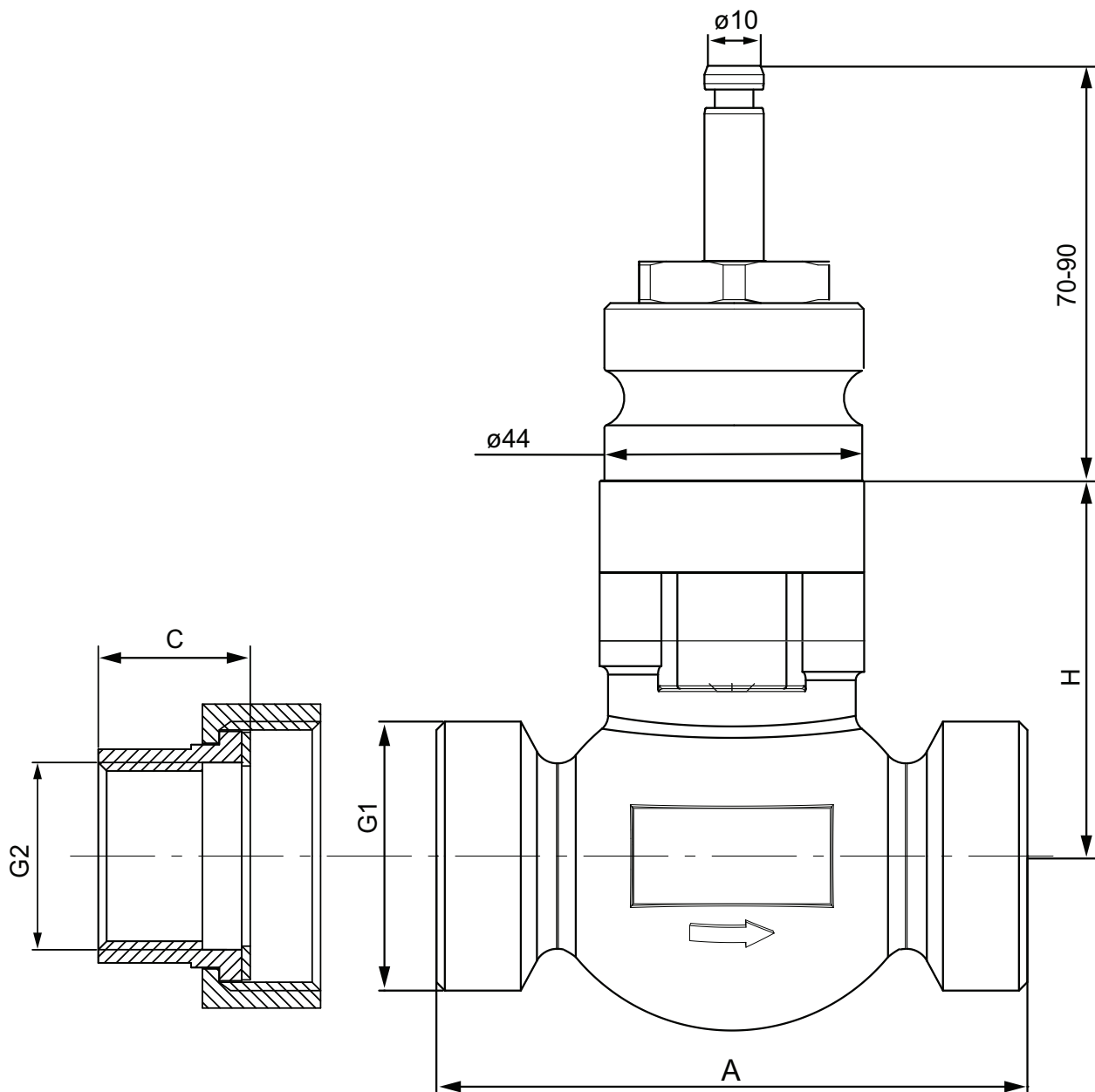

THE CHALLENGER

Article	Nominal diameter	Kvs	Actuator
ETVS40-20	DN40	20	RVAN5
ETVS40-25	DN40	25	RVAN5
ETVS50-31,5	DN50	31,5	RVAN5
ETVS50-40	DN50	40	RVAN5

Accessories

Article	Description
S0603080300	Spare parts kit, packing box (until 2021-04)
S2921357901	Spare parts kit, packing box (from 2021-05)
STEMHEATER	Valve stem heater

Dimensions

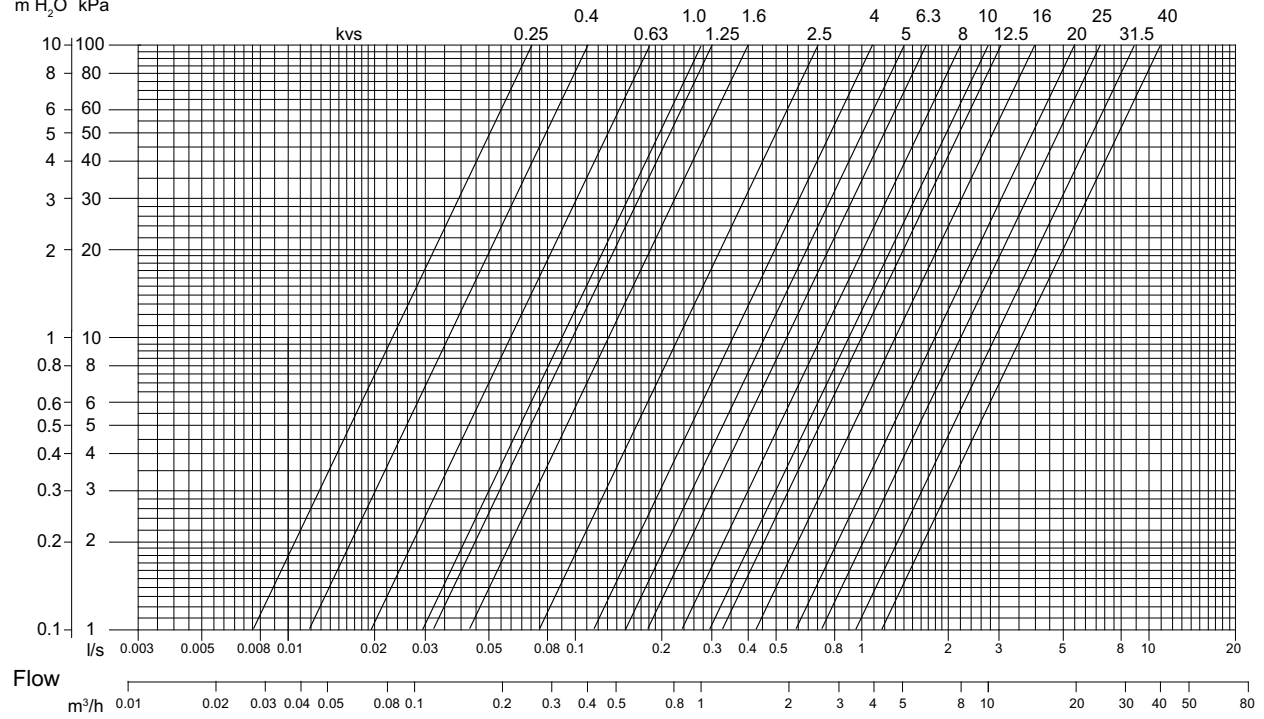


[mm], unless otherwise specified

DN	A	C	H	G1	G2
15	100	23.5	53	G 1"	G ½"
20	100	23.5	56	G 1¼"	G ¾"
25	105	27	67	G 1½"	G 1"
32	105	32	67	G 2"	G 1¼"
40	130	33.5	81	G 2¼"	G 1½"
50	150	36.5	86	G 2¾"	G 2"

Pressure drop diagram

Pressure drop
m H₂O kPa



Pressure drop

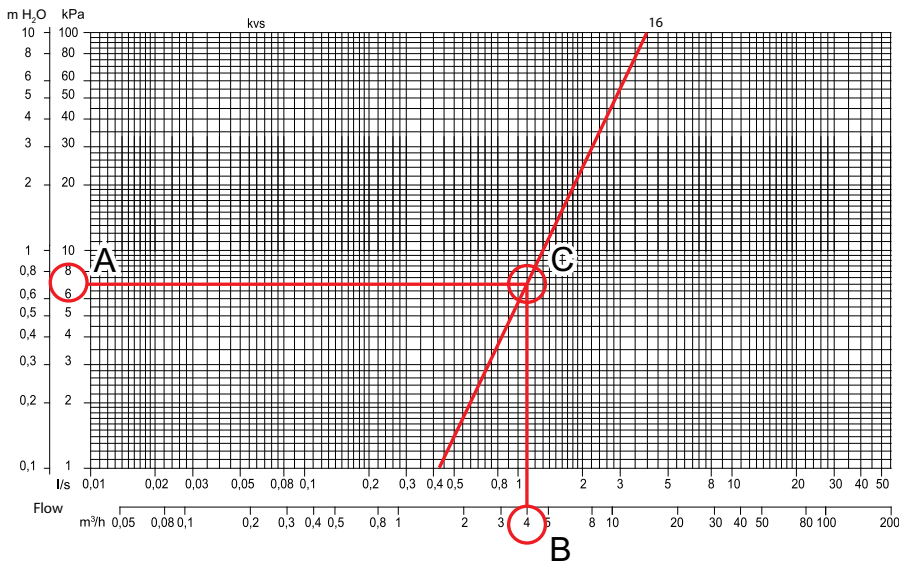


Fig. 2 Example, calculation of the Kv value: If the pressure drop is 7 kPa (A) and the flow is 4 m³/h (B), the Kv value is 16 (C). See the markings in the picture above.

Documentation

All documentation can be downloaded from www.regincontrols.com.