



- Size DN15–50
- Kvs value 0.6–39
- Rangeability 100:1

Function

The valve is closed when the stem is in its lowest position.

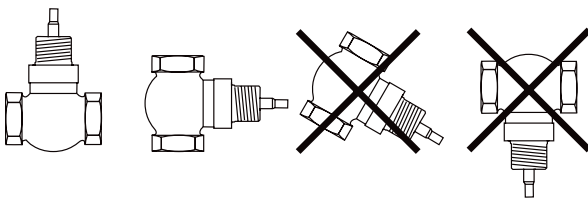
Actuator

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

BTV is intended to be used together with actuators of the type RVA5...

Installation

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



BTV

Female threaded 2-way valve

Pressure balanced (from DN20-50, not DN15) valve intended for control of hot, cold or glycol-mixed water.

- No leakage
- Pressure balanced (smaller actuators can be used)
- Temperature range -5...+140°C
- Pressure rating PN16

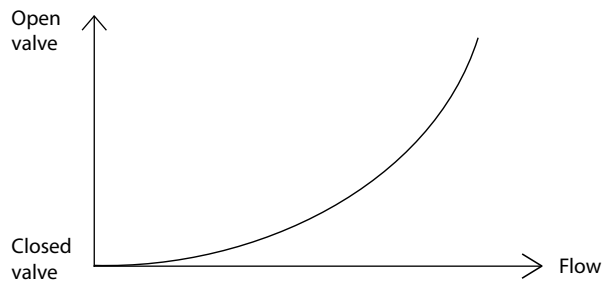
Material

BTV has body and top in brass, stem and plug in stainless steel.

The valve has a soft seating made out of carbon-filled teflon between plug and seat, which makes it completely tight. It has O-rings made of EPDM.

Flow characteristics

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



Models

Valve	Connection	Kvs	Max. diff. pressure	Valve	Connection	Kvs	Max. diff. pressure
BTV15-0,6	DN15	0.6	1.6 MPa	BTV25-6,3	DN25	6.3	1.6 MPa
BTV15-1,0	DN15	1.0	1.6 MPa	BTV25-10	DN25	10	1.6 MPa
BTV15-1,6	DN15	1.6	1.6 MPa	BTV32-16	DN32	16	1.6 MPa
BTV15-2,5	DN15	2.5	1.6 MPa	BTV40-27	DN40	27	1.6 MPa
BTV20-3,9	DN20	3.9	1.6 MPa	BTV50-39	DN50	39	1.6 MPa

Technical data

Pressure rating	PN16
Connection	Female threaded
Flow characteristics	Equal percentage
Rangeability	100:1
Stroke	20 mm
Media	Hot, cold or glycol-mixed water (max. 50 % glycol)
Leakage	None
Temperature range	-5...+140°C
Thread	The valves have female threaded connections according to ISO 228/1

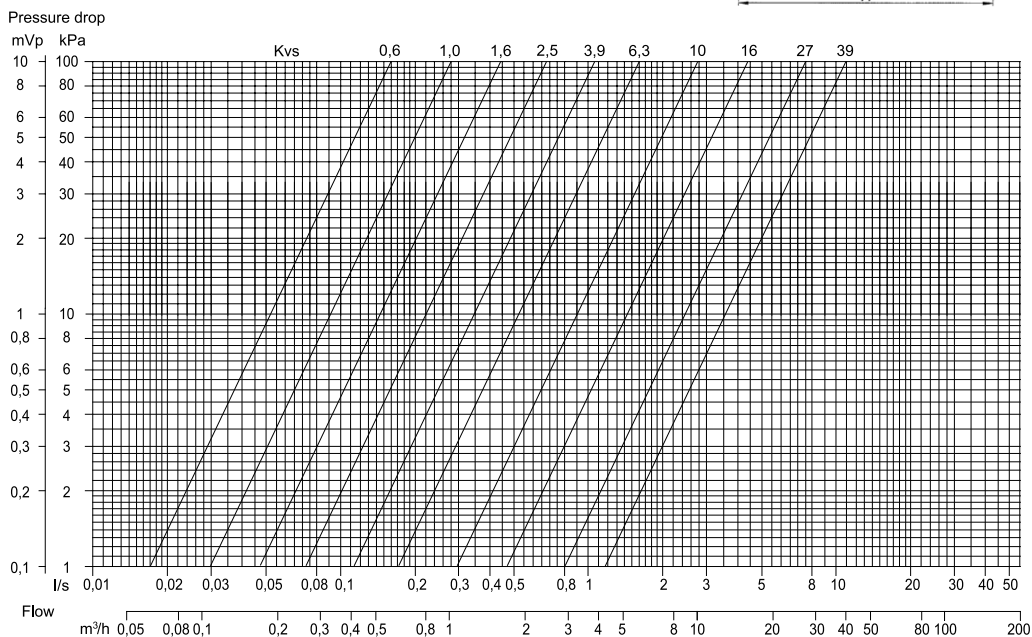
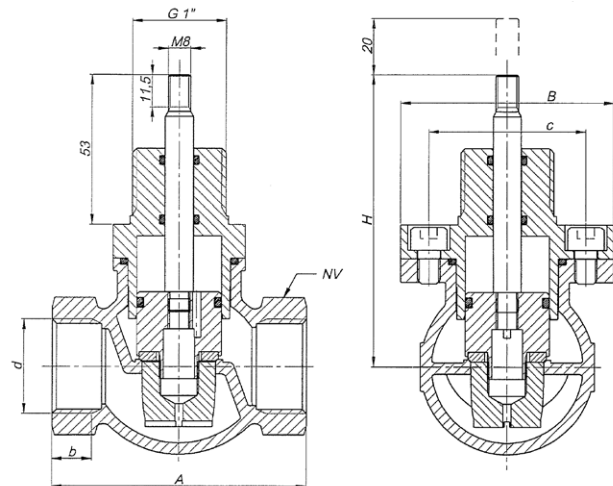
Material

Body	Brass CZ 121
Plug parabol	Stainless steel 304S15
Stem	Stainless steel 303S31
O-rings	EPDM

Dimensions and pressure drop diagram

Measurements in mm

DN:	d	A	b	H	B	c	NV
15	G1/2"	70	11	90	62	47	30
20	G3/4"	75	13	90	62	47	36
25	G1"	90	14	104	76	56	42
32	G1 1/4"	105	17	104	64	44	52
40	G1 1/2"	120	18	120	67	50	58
50	G2"	145	20	124	77	60	70





RVA5-24A

Valve actuator for 0(2)...10 V control signal.
Force 500 N.

Valve actuator for control of Regin valves. The actuator has automatic self stroke adjustment and can be operated manually.

- Protection class IP54
- Stroke 10...30 mm (20 mm fixed stroke)
- Manual operation

Automatic calibration

After each power-up, automatic calibration will take place. If the unit has been configured for fixed stroke (SW2=Off), the zero point (i.e. the position in which the valve is closed) will be calibrated. If the unit has been configured for free stroke (SW2=On), the stroke will be calibrated.

Override

Activation of the override input will force the valve to the maximum open position.

- Automatic stroke adjustment
- Easy to mount the valve
- Position indication

Indications

The actuator has two LEDs with indications according to the table below.

Indication	
Green steady light	Actuator working properly
Green light quick flashing	Test run in progress
Green light slow flashing	The setting was changed during the operation. The new setting will be valid after the next power on.
Red and green steady light	End position reached
Red light slow flashing	Override operating mode
Red steady light	Operation faulty, either the improper installation or the valve stroke lost

Suitable valves

The actuator is intended for control of valves from Regin. Information on suitable valves can be found in the product information for each valve. Regin also offers adapters for adjusting the actuator to valves of other brands.

Technical data

Supply voltage	24 V AC $\pm 15\%$, 50/60 Hz, or 24 V DC $\pm 15\%$
Control signal	0(2)...10 V DC or 4...20 mA. For 4...20 mA control signal, a 500 Ω resistor must be mounted parallel to the input signal, i.e. between terminals 2 and 3. SW4 should be in position 1 (On).
Power consumption	Max. 4.5 W
Stroke	10...30 mm (20 mm fixed stroke)
Stroke time	1.5 s/mm
Force	500 N
Ambient temperature	0...50°C
Storage temperature	-40...+80°C
Ambient humidity	10...90 % RH
Protection class	IP54



EMC emissions & immunity standards: This product conforms to the requirements of the EMC Directive 2004/108/EC through product standards EN60730-1:2000 and EN60730-2-14:1997.

RoHS: This product conforms with the Directive 2011/65/EU of the European Parliament and of the Council.

DIP switches

	1 (On)	0 (Off)
SW1	Spindle down when the valve is closed	Spindle up when the valve is closed (FS=factory setting)
SW2	Free stroke (auto adaptation, 10...30 mm)	Fixed stroke (20 mm) (FS)
SW3	LOG	LIN (FS)
SW4	Y = 2...10 V DC	Y = 0...10 V DC (FS)
SW5	Reverse operation	Direct operation (FS)
SW6	Y signal split in accordance with the setting of SW7	No split function (FS)
SW7	5(6)...10 V = 0...100%	0(2)...5(6) V = 0...100% (FS)

Wiring and dimensions

