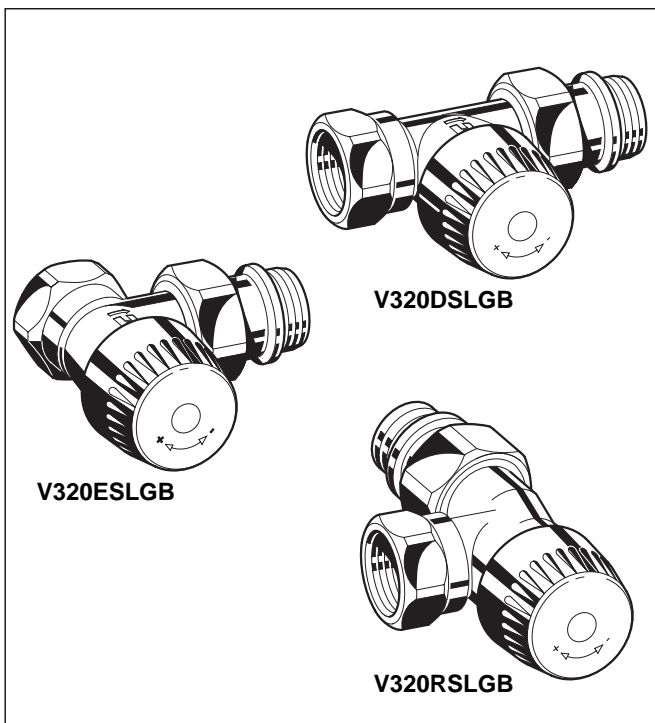


VENUS Series Thermostatic Radiator Valve

TRV BODY WITH STROKE LIMITATION, INTERNAL THREADS

PRODUCT DATA



Application

The VENUS series is a thermostatic valve, supplied with a protection cap. Thermostatic radiator valves individually control room temperatures and thus save energy. VENUS series type thermostatic radiator valves have quiet operation and are fitted to the supply of radiators on 1- and 2-pipe systems with medium to large flow rates.

The VENUS series is supplied with a protection cap. To convert the VENUS series to thermostatic operation the protection cap is replaced by a radiator thermostat, e.g. Honeywell Thera-4.

Features

- Supplied with protection cap
- Bi-directional flow
- Pre-settable by stroke limitation
- For 1- and 2-pipe systems
- Thermostat connection: M30 x 1.5 mm
- Connection to all types of pipework DN10 to DN15
- Quiet operation
- Tail piece with integrated O-ring

Specifications

Medium	Heating water
pH-value	8...9,5
Operating temperature	max. 120°C (248°F)
Operating pressure	max. 10 bar (145 psi)
Differential pressure	max. 0,20 bar (2,9 psi) recommended for quiet operation
kvs-values	1,70 (DN10) 1,85 (DN15)
Thermostat thread	M30 x 1.5
Closing dimension	11.5 mm

Design

The manual valve is made up of:

- Valve housing PN10, DN10 or DN15, dimensions to HD 1215 series F, with internal thread to ISO 228 on inlet; external thread with union-nut and radiator tailpiece on outlet. Internal thread suitable for threaded pipe, also suitable for copper and precision steel pipe using compression fittings (see 'Accessories').
- Pre-settable valve insert
- Protection cap
- Union-nut and radiator tailpiece

Materials

- Valve housing made of hot forged brass, nickel plated
- Valve insert made of brass with stainless steel stem, brass cartridge and EPDM seat-sealing
- Protection cap made of grey plastic
- Union-nut made of brass, nickel-plated
- Radiator tailpiece made of brass, nickel plated, EPDM O-ring

Dimensions

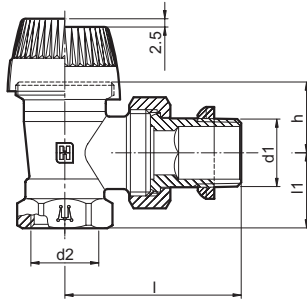


Fig. 1. Angle version with internal thread on inlet

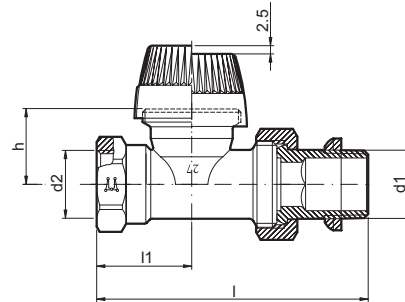


Fig. 2. Straight version with internal thread on inlet

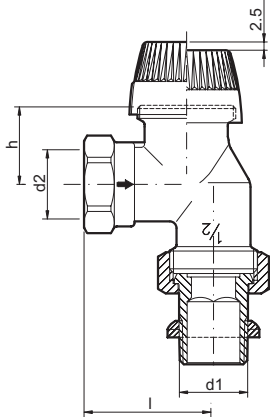


Fig. 3. Reverse angle with internal threads on inlet

NOTE: All dimensions in mm unless otherwise stated.

Ordering Information

Table 1: Available versions and OS-Nos. (OS=Ordering System)

Version	DN	kvs-value	ISO 228		Dimensions			OS-No.
			d1	d2	l1	l	h	
Angle, internal thread (Fig. 1)	10	1,70	R3/8"	Rp3/8"	20	49	21,5	V320ESLGB10
	15	1,85	R1/2"	Rp1/2"	23	53	21,5	V320ESLGB15
Straight, internal thread (Fig. 2)	10	1,70	R3/8"	Rp3/8"	25	75	23	V320DSLGB10
	15	1,85	R1/2"	Rp1/2"	29	82	23	V320DSLGB15
Reverse angle internal thread (Fig. 5)	15	1,85	R1/2"	Rp1/2"	—	38.5	23.5	V320RSLGB15

Function

Thermostatic valves individually control room temperatures and thus save energy.

Delivered with protection cap. By replacing the protection cap with a TRV head the room temperature is automatically controlled.

The valves are controlled by the thermostatic sensor and actuator. Air from the room passing over the sensor causes expansion of the sensor medium as the temperature rises

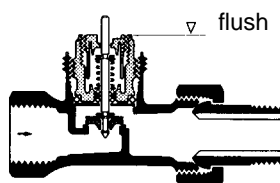
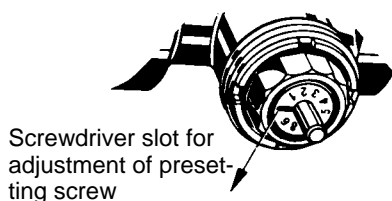
and this causes the valve to start closing. Conversely, when the temperature falls the sensor medium contracts and the aperture becomes larger. The size of the opening for water to flow through changes in proportion to the temperature of the sensor. The valve permits only the amount of water to flow to the radiator which is required to maintain the room temperature set on the thermostat.

Setting procedure

Turn the pre-setting screw until stop. Mark position of screwdriver slot as reference point. Then turn anticlockwise according to reference figure obtained from the pressure drop chart.

Reference figure 10 corresponds to 1 turn.

Reference figure 20 corresponds to 2 turns.





Position of pre-setting screw at delivery

Accessories

Pipe connections for valves with internal thread on inlet

Compression fitting for copper and soft steel pipe

	1/2" x 10 mm	VA620B1510
	1/2" x 12 mm	VA620B1512
	1/2" x 14 mm	VA620B1514
	1/2" x 15 mm	VA620B1515
	1/2" x 16 mm	VA620B1516

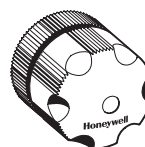
Service parts

Replacement valve insert



VS1200SLGB01

Replacement handwheel



H100-1/2D

Pressure cap



for shutting off valves on radiator outlet

VA2202A010
VA2202A015

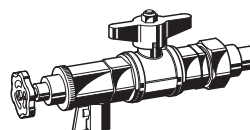
Sealing ring



for pressure cap

VA5090A010
VA5090A015

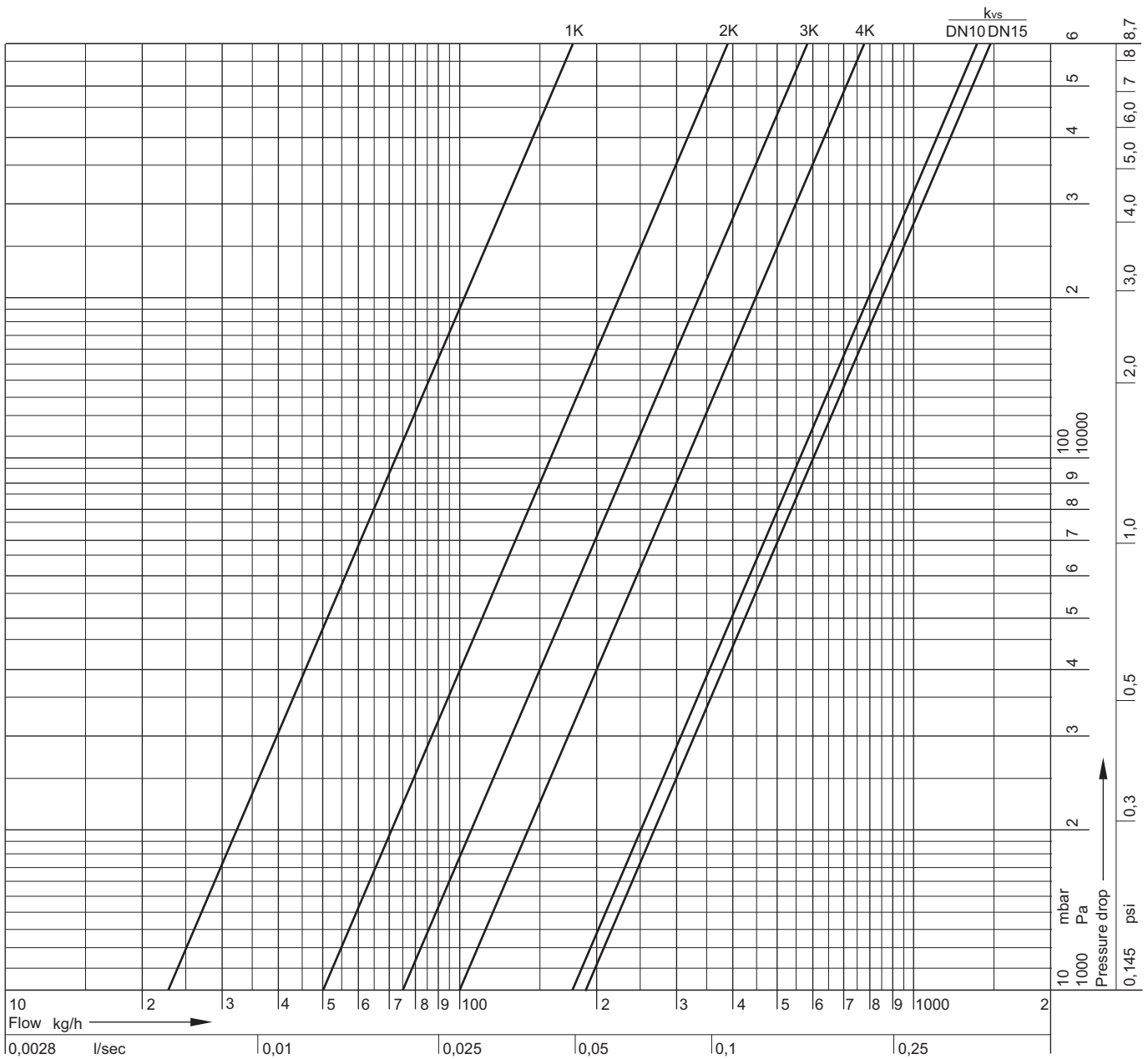
Service tool



for replacing valve insert without draining system

VA8200A001

Flow Diagram



Pre-setting	1	2	3	4	5	7	17,5 = open = kvs
k_v (cv)-value for DN10	0,25 (0,29)	0,50 (0,59)	0,70 (0,82)	1,00 (1,17)	1,25 (1,46)	1,50 (1,76)	1,70 (1,95)
k_v (cv)-value for DN15	0,25 (0,29)	0,50 (0,59)	0,70 (0,82)	1,00 (1,17)	1,25 (1,46)	1,50 (1,76)	1,85 (2,16)

NOTE: Pre-settings above 4 are unsuitable for operation with radiator thermostats and should only be used with actuators (open / close operation).

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