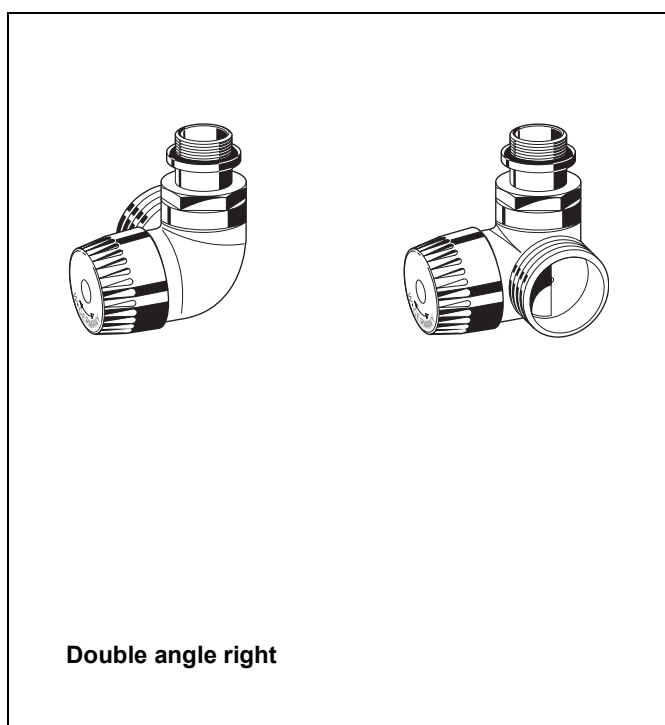


V2000 Design Thera Design Edition - TRV Body

WITH HIGH QUALITY SURFACE FOR DESIGN RADIATORS

PRODUCT DATA



Design

The design thermostatic radiator valve body consists of:

- Valve housing PN10, DN15 with
 - external thread connection on inlet
 - external thread connection with union-nut and radiator tail-piece on outlet
- Pre-settable valve insert
- Protection cap

Materials

- Valve housing made of brass with chrome or white (RAL 9016) surface
- Valve insert made of brass with EPDM O-rings and soft seals and stainless steel spindle
- Protection cap made of plastic
- Union-nut and tailpiece made of chrome plated brass with EPDM O-ring

Application

The Thera Design Edition is particularly styled for use with design radiators. With their high class appearance they perfectly fit to all kinds of ambients.

Thermostatic radiator valve bodies (TRV bodies) are fitted on the supply or return of radiators or heat exchangers. Together with a radiator thermostat, for example the Thera-4, they control the room temperature by regulating the flow of hot water into the radiator or heat exchanger. The temperature of different rooms is controlled individually and energy is saved.

TRV bodies of this type have quiet operation and are fitted to the supply or return of radiators on two-pipe systems with medium flow rates.

The valve insert can be replaced while the system is running and without draining using the service tool (see 'Accessories').

TRV bodies of this type are suitable for

- Honeywell radiator thermostats with M30 x 1.5 connection and from an optical aspect especially the Thera-4 Design series

Features

- Perfect finishing with high quality surface in chrome or white (RAL9016)
- Various versions in angle, straight and double angle available to fit a visual appealing installation
- Including a chromed tail piece with integrated O-ring
- Bi-directional flow
- Pre-settable by stroke limitation
- For 2-pipe systems
- Standard M30 x 1.5 thermostat connection
- Connections for all types of pipework available
- Quiet operation

Specifications

Medium	Water or glycol-water mixture, according to VDI 2035
pH-value	8...9,5
Operating temperature	2...130°C (36...266°F)
Operating pressure	PN10
Differential pressure	max. 100kPa (1 bar, 14.5 psi) – max. 20 kPa (0.2 bar, 2.9 psi) recommended for quiet operation
k_{vs} (C_{vs})-value	1.20 (1.40)
Body-head connection	M30 x 1.5
Closing dimension	11.5 mm
Stroke	2.5 mm

Function

Thermostatic radiator valves enable individual control of room temperature and thus save energy.

The TRV body is controlled by the radiator thermostat. Air from the room passing over the sensor of the radiator thermostat causes the sensor to expand when the temperature rises. The sensor acts onto the valve spindle and this causes the TRV body to close. When the temperature falls the sensor contracts and the spring-loaded valve spindle is opened. The TRV opens in proportion to the temperature of the sensor. Only the amount of water required to maintain the room temperature set on the radiator thermostat can flow into the radiator.

Pre-setting

The TRV is open by factory setting. Pre-setting is done by first closing the valve insert (head black with pre-setting-figure 0-9) on top of the valve body 2 turns right and then opening to the pre-setting-figure derived from the flow diagram.

NOTE: One complete turn refers to pre-setting-figure 10, 2 complete turns to pre-setting-figure 20 and so on.

Please note:

- To avoid stone deposit and corrosion the composition of the medium should conform with VDI-Guideline 2035
- Additives have to be suitable for EPDM sealings
- System has to be flushed thoroughly before initial operation with all valves fully open
- Any complaints or costs resulting from non-compliance with above rules will not be accepted by Honeywell
- Please contact us if you should have any special requirements or needs

Application Examples

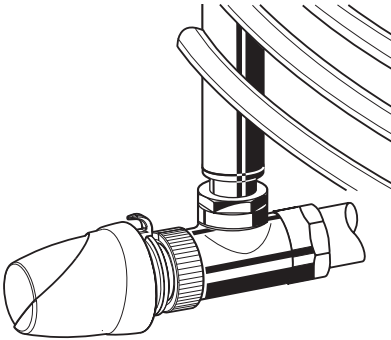


Fig. 1. Angle version

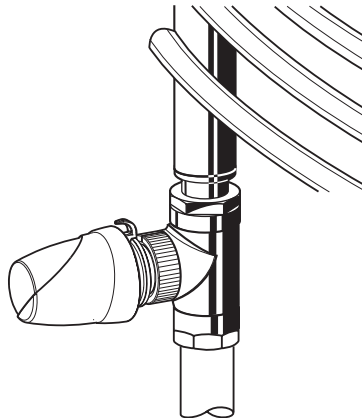


Fig. 2. Straight version

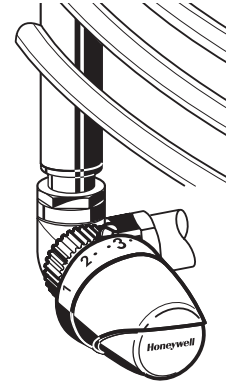


Fig. 3. Double angle version

Dimensions

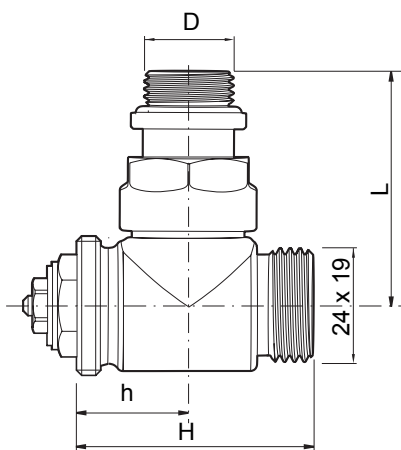


Fig. 4. Angle

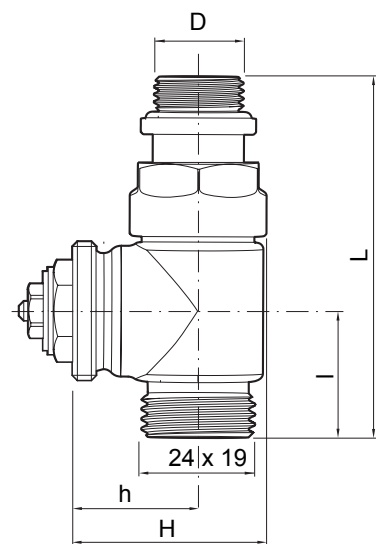


Fig. 5. Straight

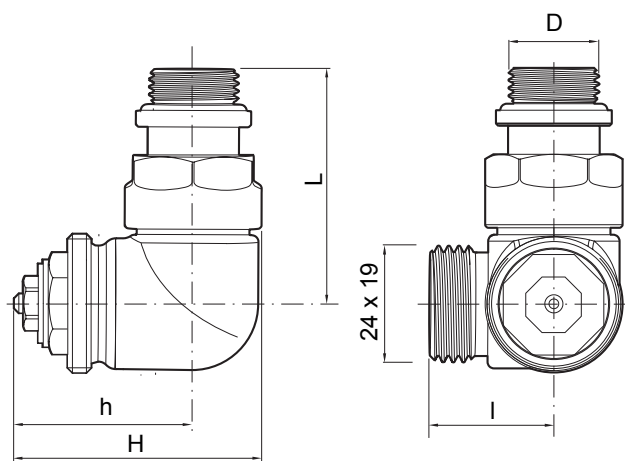


Fig. 6. Double angle

Ordering Information

Table 1. Dimensions and OS-Nos (OS=Ordering System)

Body type	DN	$k_{vs}(c_{vs})$ -value	I	L	h	H	D	OS-No.
White, angle	15	1.20 (1.40)		55	25	51	Rp 1/2"	V2081ESL15
Chrome, angle	15	1.20 (1.40)		55	25	51	Rp 1/2"	V2082ESL15
White, straight	15	1.20 (1.40)	26	81	28	44	Rp 1/2"	V2081DSL15
Chrome, straight	15	1.20 (1.40)	26	81	28	44	Rp 1/2"	V2082DSL15
White, double angle right	15	1.20 (1.40)	26	55	29	45	Rp 1/2"	V2081RSL15
Chrome, double angle right	15	1.20 (1.40)	26	55	29	45	Rp 1/2"	V2082RSL15
White, double angle left	15	1.20 (1.40)	26	55	29	45	Rp 1/2"	V2081LSL15
Chrome, double angle left	15	1.20 (1.40)	26	55	29	45	Rp 1/2"	V2082LSL15

NOTE: All dimensions in mm unless stated otherwise.

Accessories

Pipe Connections

Design compression fitting for COPPER pipe.

Consisting of compression nut and compression ring.

For valves with external thread M24x19.

	Connection	Pipe dimension	Part number	Pcs/ pack
	M24x19	12 mm	FEM24C12	1
	M24x19	14 mm	FEM24C14	1
	M24x19	15 mm	FEM24C15	1
	M24x19	16 mm	FEM24C16	1

NOTE: Max. operating temperature 90°C, max. operating pressure 10 bar.

Design compression fitting for PEX pipe.

Consisting of compression nut, compression ring and reinforcing insert.

For valves with external thread M24x19.

	Connection	Pipe dimension	Part number	Pcs/ pack
	M24x19	12x1.1 mm	FEM24P12X1.1	1
	M24x19	14x2 mm	FEM24P14X2	1
	M24x19	16x1.5 mm	FEM24P16X1.5	1
	M24x19	16x2 mm	FEM24P16X2	1
	M24x19	18x2 mm	FEM24P18X2	1

NOTE: Max. operating temperature 90°C, max. operating pressure 10 bar.

Design compression fitting for MULTILAYER pipe.

Consisting of compression nut, compression ring and reinforcing insert.

For valves with external thread M24x19.

	Connection	Pipe dimension	Part number	Pcs/ pack
	M24x19	12x2 mm	FEM24M14X2.1	1
	M24x19	16x2 mm	FEM24M16X2	1
	M24x19	18x2 mm	FEM24M18X2	1
	M24x19	20x2 mm	FEM24M20X2	1

NOTE: Max. operating temperature 90°C, max. operating pressure 10 bar.

Valve Accessories

Rosette white (RAL9016) for wall covering



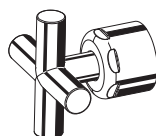
Ø40 x 12mm	VA2201D012
Ø40 x 14mm	VA2201D014
Ø40 x 15mm	VA2201D015
Ø40 x 16mm	VA2201D016
Ø40 x 18mm	VA2201D018
Ø40 x 20mm	VA2201D020

Rosette chrome for wall covering



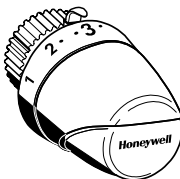
Ø40 x 12mm	VA2201E012
Ø40 x 14mm	VA2201E014
Ø40 x 15mm	VA2201E015
Ø40 x 16mm	VA2201E016
Ø40 x 18mm	VA2201E018
Ø40 x 20mm	VA2201E020

Manual design handwheel



White (RAL9016)	VA2200C001
Chrome	VA2200C002

Thera-4 Design radiator thermostat



white/white	T2001
white/white with zero-position	T2001W0
white/chrome	T2021
white/chrome with zero-position	T2021W0

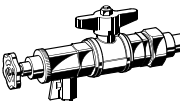
Service Parts

Valve insert



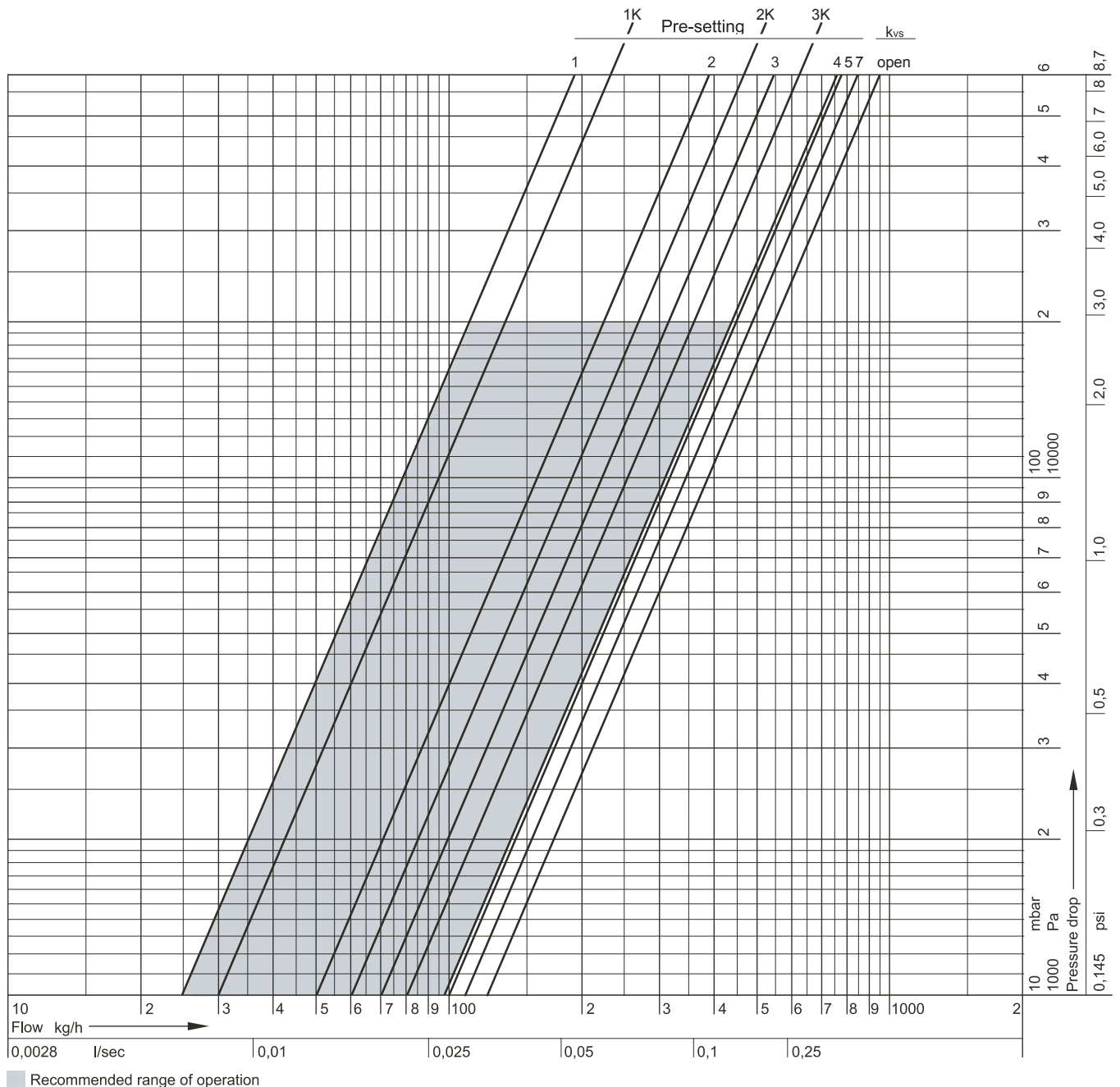
VS1200SLGB11

Service tool to replace valve insert



for all sizes VA8200A001

Flow Diagram

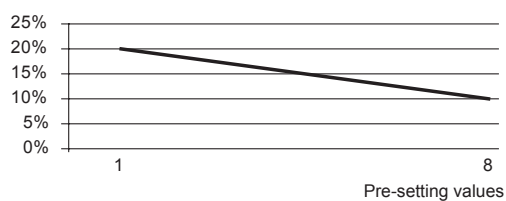


Pre-setting	1	2	3	4	5	7	open = k_{vs}
$k_{vs}(cv)$ -values DN15	0.25 (0.29)	0.50 (0.58)	0.70 (0.82)	0.90 (1.05)	1.00 (1.17)	1.10 (1.28)	1.20 (1.40)

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

P-Band	1K	2K	3K
k_v -value	0.3	0.6	0.8
cv-value	0.35	0.70	0.94

Tolerances for Pre-setting Values



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