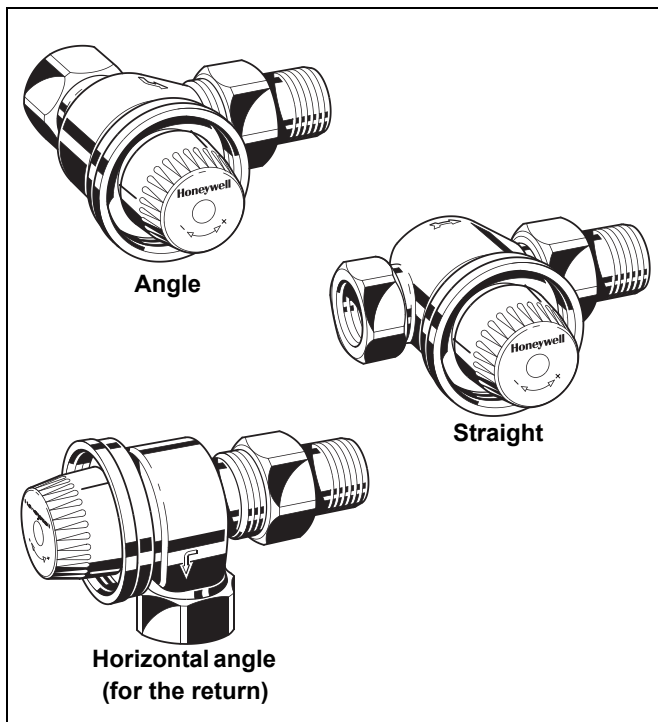


V2050 H type TRV Body HI-FLOW THERMOSTATIC RADIATOR VALVE

PRODUCT DATA



Design

Das Thermostatventil besteht aus:

- Ventilgehäuse PN 10, DN 15, 20 oder 25 mit
 - internal thread to DIN2999 (ISO7) on inlet and external thread for union-nut with radiator tailpiece on outlet. Inlet suitable for threaded pipe, DN15 and 20 also suitable for copper and precision steel pipe using compression fittings (see 'Accessories')
 - external thread connection to DIN/ISO228 with union-nut and radiator tailpiece on outlet
- Ventileinsatz
- Schutzkappe
- Überwurfmutter und Tülle

Materials

- Valve housing made of red bronze
- Valve insert made of brass with EPDM O-rings and seat sealing
- Spindle made of stainless steel
- Protection cap made of white plastic
- Union-nut and tailpiece made of brass

Application

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.

Thermostatic radiator valves of this type have quiet operation and are fitted to radiators on two-pipe systems with large flow rates or radiators in one-pipe systems.

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
- Certain Honeywell MT4 actuators
- Honeywell Hometronic HR80 and Roomtronic HR40 actuators

Features

- For heating-systems with high water flow rates
- Available for installation on the supply or, with horizontal angle body, on the return
- Reverse flow possible - note lower max. differential pressure
- Standard M30 x 1.5 thermostat connection
- Quiet operation
- Valve insert can be replaced while system is operating and without draining the system
- Valve opening spring is not in the water
- With white protection cap

Specifications

Medium	Heating water		
ph-value	8 ... 9.5		
Operating temperature	max. 130°C (266°F)		
Operating pressure	PN10		
Differential pressure	max. 0.3 bar (4.4 psi) max. 0.1 bar (1.45 psi) for reverse flow option		
k_{vs}(c_v)-values	Angle DN15	5.0 (5.85)	
	Angle DN20+25	7.0 (8.19)	
	Straight DN15	3.5 (4.10)	
	Straight DN20+25	5.0 (5.85)	
	Horizontal angle DN155.0	5.0 (5.85)	
	Horizontal angle DN207.0	8.19	
Nominal flow	395 kg/h		
Body-head connection	M30 x 1.5		
Closing dimension	11.5 mm		
Stroke	2.9 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.

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

Dimensions and Ordering Information

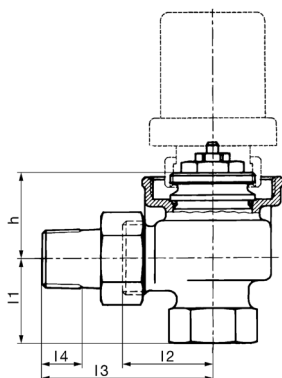


Fig. 1. Angle

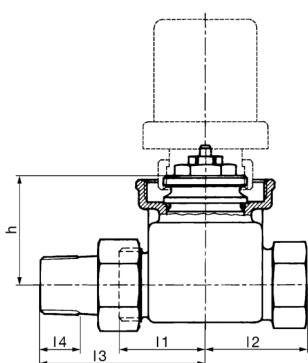


Fig. 2. Straight

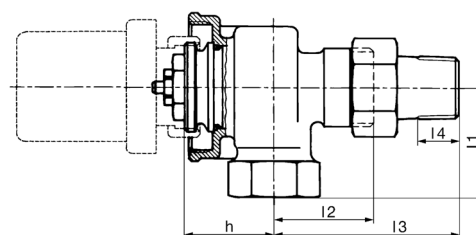


Fig. 3. Horizontal angle

NOTE: Radiator thermostat is not supplied with valve.

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

Body type	DN	k _{vs} (c _{vs})-value	Pipe connection	h	l ₁	l ₂	l ₃	l ₄	OS-No.
Angle (Fig. 1)	15	5.0 (5.85)	Rp 1/2"	39.5	31.0	36.5	59.0	13.2	V2050EH015
	20	7.0 (8.19)	Rp 3/4"	39.5	34.5	40.5	66.5	14.5	V2050EH020
	25	7.0 (8.19)	Rp 1"	40.0	42.0	48.0	75.0	16.8	V2050EH025
Straight (Fig. 2)	15	3.5 (4.10)	Rp 1/2"	30.5	30	32	60	13.2	V2050DH015
	20	5.0 (5.85)	Rp 3/4"	32.0	34.0	36.0	68.0	14.5	V2050DH020
	25	5.0 (5.85)	Rp 1"	32.0	37.5	41.5	74.5	16.8	V2050DH025
Horizontal angle (Fig. 3)	20	5.0 (5.85)	Rp 1/2"	30.5	37.0	30.0	58.0	13.2	V2050HH015
	25	7.0 (8.19)	Rp 3/4"	32.0	40.0	34.0	66.0	14.5	V2050HH020

NOTE: All dimensions in mm unless stated otherwise.

Accessories

Pipe Connections

Compression fitting for **COPPER** and **STEEL** pipe.

Consisting of compression nut and compression ring.

For valves with internal thread.

	Valve size	Pipe dimension	Part number	Pcs/ pack
	3/8" (DN10)	10 mm	FIG3/8CS10	1
	3/8" (DN10)	12 mm	FIG3/8CS12	1
	1/2" (DN15)	10 mm	FIG1/2CS10	1
	1/2" (DN15)	12 mm	FIG1/2CS12	1
	1/2" (DN15)	14 mm	FIG1/2CS14	1
	1/2" (DN15)	15 mm	FIG1/2CS15	1
	1/2" (DN15)	15 mm	FIG1/2CS15-10	10
	1/2" (DN15)	16 mm	FIG1/2CS16	1
	3/4" (DN20)	18 mm	FIG3/4CS18	1
	3/4" (DN20)	22 mm	FIG3/4CS22	1

NOTE: Support inserts have to be used for copper or soft steel pipe with 1.0 mm wall thickness. Max. operating temperature 120°C, max. operating pressure 10 bar.

Compression fitting for **COPPER** and **SOFT STEEL** pipe.

Consisting of compression nut, compression ring and support insert.

For valves with internal thread.

	Valve size	Pipe dimension	Part number	Pcs/ pack
	3/8" (DN10)	12 mm	FIG3/8CSS12	1
	1/2" (DN15)	12 mm	FIG1/2CSS12	1
	1/2" (DN15)	14 mm	FIG1/2CSS14	1
	1/2" (DN15)	15 mm	FIG1/2CSS15	1
	1/2" (DN15)	16 mm	FIG1/2CSS16	1
	1/2" (DN15)	18 mm	FIG1/2CSS18	1
	3/4" (DN20)	18 mm	FIG3/4CSS18	1

NOTE: Support inserts have to be used for copper or soft steel pipe with 1.0 mm wall thickness. Max. operating temperature 120°C, max. operating pressure 10 bar.

Compression fitting for **MULTILAYER** pipe.

Consisting of compression nut, compression ring and support insert.

For valves with internal thread.

	Valve size	Pipe dimension	Part number	Pcs/ pack
	1/2" (DN15)	16 mm	FIG1/2M16X2	1

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

Soldering tailpiece

	1/2" x 15 mm (for DN15)	VA5230A015
	3/4" x 22 mm (for DN20)	VA5230A020

Reduction piece



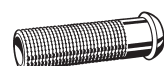
1" pipe > 1/2" valve	VA6290A260
1 1/4" pipe > 1/2" valve	VA6290A280
1" pipe > 3/4" valve	VA6290A285
1 1/4" pipe > 3/4" valve	VA6290A305

Tailpiece with thread up to collar



for valves DN15 (1/2")	VA5201A015
for valves DN20 (3/4")	VA5201A020
for valves DN25 (1")	VA5201A025

Extended radiator tailpiece, nickel-plated, to be shortened as required



3/8" x 70 mm (for DN10) thread approx. 50 mm	VA5204B010
1/2" x 76 mm (for DN15) thread approx. 65 mm	VA5204B015
3/4" x 70 mm (for DN20) thread approx. 60 mm	VA5204B020

Valve Accessories

Manual handwheel cap



Pre-settable, with integrated locking device	VA2200D001
--	------------

Sealing ring for pressure cap



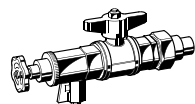
for valves DN15 (1/2")	VA5090A015
for valves DN20 (3/4")	VA5090A020

Pressure cap – for shutting off valves on radiator outlet



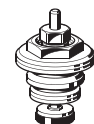
for valves DN15 (1/2")	VA2202A015
for valves DN20 (3/4")	VA2202A020

Service tool for replacing valve insert without draining system



for all sizes	VA8200A002
---------------	------------

Exchange valve insert



H type	VS1200H020
--------	------------

Replaceable 'O' ring insert



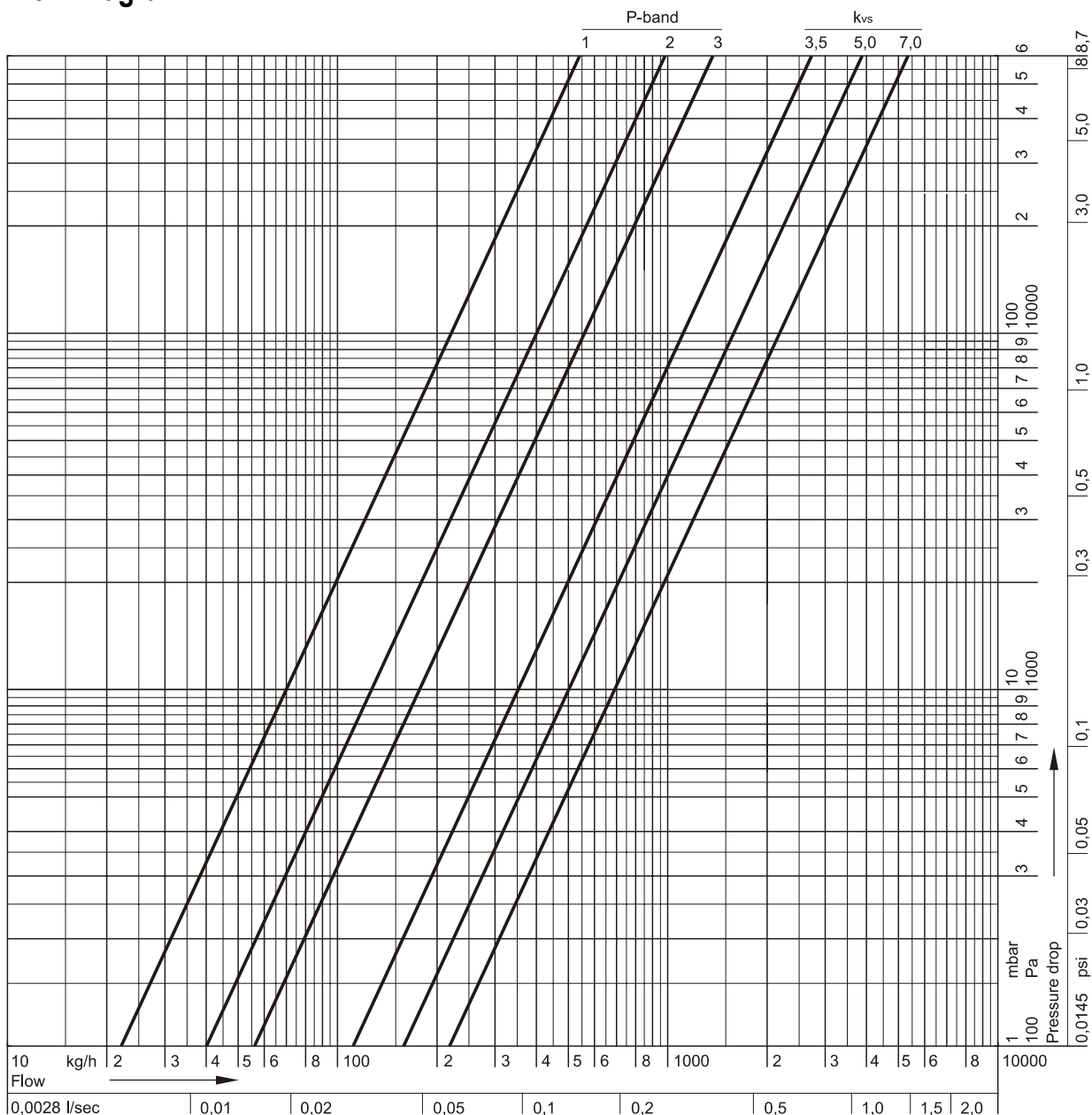
H type	VS2200A001
--------	------------

Special tool for assembly of radiator thermostats



VA8210A001

Flow Diagram



Body type	DN	P-Band					Kvs(Cvs)-value
		1K	2K	3K	5K	7K	
Angle, horizontal angle	15	0.7 (0.82)	1.25 (1.46)	1.8 (2.11)	3.0 (3.51)	3.5 (4.10)	5.0 (5.85)
	20, 25	0.7 (0.82)	1.25 (1.46)	1.8 (2.11)	3.0 (3.51)	4.3 (5.03)	7.0 (8.19)
Straight	15	0.7 (0.82)	1.25 (1.46)	1.8 (2.11)	2.5 (2.93)	3.0 (3.51)	3.5 (4.10)
	20, 25	0.7 (0.82)	1.25 (1.46)	1.8 (2.11)	2.7 (3.16)	3.7 (4.33)	5.0 (5.85)

NOTE: Valid for standard HON TRV heads, i.g. T6001

V2050 with T6001HF	DN	P-Band			Kvs(Cvs)-value
		1K	2K	3K	
Angle, horizontal angle	15	0.6 (0.72)	1.6 (1.88)	2.8 (3.28)	5.0 (5.85)
	20	0.6 (0.72)	1.6 (1.88)	2.8 (3.28)	7.0 (8.19)
	25	0.6 (0.72)	1.6 (1.88)	2.8 (3.28)	7.0 (8.19)
Straight	15	0.6 (0.72)	1.6 (1.88)	2.3 (2.70)	3.5 (4.10)
	20	0.6 (0.72)	1.6 (1.88)	2.4 (2.81)	5.0 (5.85)
	25	0.6 (0.72)	1.6 (1.88)	2.4 (2.81)	5.0 (5.85)

Environmental and Combustion Controls

Honeywell GmbH

Hardhofweg

74821 MOSBACH

GERMANY

Phone: +49 (6261) 810

Fax: +49 (6261) 81393

<http://ecc.emea.honeywell.com>

EN0H-2108GE23 R0115

January 2015

© 2015 Honeywell International Inc.

Subject to change without notice

Manufactured for and on behalf of the Environmental and Combustion Controls Division of Honeywell Technologies Sàrl, Z.A. La Pièce 16, 1180 Rolle, Switzerland by its Authorised Representative Honeywell GmbH

Honeywell