# Honeywell Home Radiator Valves and Thermostats

# **T2000 Series**

Thera-4 Design

Compact-size design radiator thermostats

## APPLICATION

A Radiator Thermostat is installed onto a Thermostatic Radiator Valve Body (TRV body). The combination of both, the Thermostatic Radiator Valve (TRV), controls the room temperature by adjusting the flow of hot water through a radiator.

TRVs are installed in water-based heating systems on the supply or, less commonly on the return connection of radiators.

Radiator thermostats of this type with liquid sensor fulfill the European Standard EN 215 when used with certified Honeywell Home TRV bodies.

Honeywell Home radiator thermostats with Honeywell Home (HW) M30  $\times$  1.5 connection are suitable for all TRV body and radiator inserts with M30  $\times$  1.5 connection and 11.5 mm closing dimension.

Radiator Thermostats of this type with snapring (DA) type connection are suitable for TRV bodies and valve inserts with Danfoss (RA) type compatible snap connection.

#### FEATURES

- "A"-class Energy-Efficiency certified according TELL labeling sheme
- Conforms with M30 x 1.5 connection to European standard EN 215
- Equipped with liquid sensor
- Modern ergonomical design
- Compact size
- Easy to clean
- Easy to equip with range stoppers





#### SPECIFICATIONS

Thermostat connection:			
HW type:	M30 x 1.5		
DA type:	Snap connection		
Setpoint range with zero position:	0 - 💥 - 1 - 5		
Setpoint range without zero position:	₩ -1-5		
Temperature with zero position:	1 - 28 °C (34 - 82 °F)		
Temperature without zero position:	6 - 28 °C (43 - 82 °F)		
Closing dimension:	11.5 mm		
Note <sup>.</sup> Zero-position is also thermo	statically controlled - when		

Note: Zero-position is also thermostatically controlled - when temperature falls the TRV may open.

### DESIGN

The radiator thermostat consists of:

- Handwheel with lid and socket
- Honeywell Home HW M30 x 1.5 connection and 11.5 mm closing dimension
- Sensor with support cage
- Liquid sensor
- Spindle assembly
- Connection nut

#### MATERIALS

- Handwheel, lid and socket made of plastic, white to RAL9016 or chromium-plated
- Socket, support cage and spindle assembly made of plastic
- Sensor filled with liquid
- Connection nut made of nickel-plated brass

# DIMENSIONS AND ORDERING INFORMATION

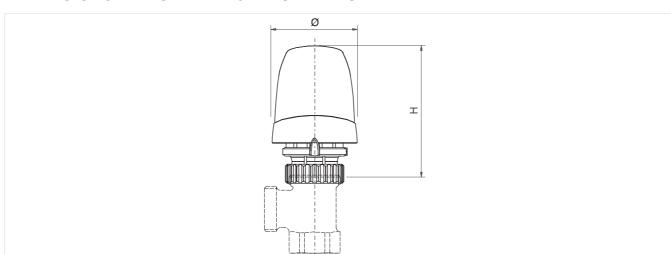


Fig. 1 Dimensions

Туре	H closed	H open	Ø
Thera-4 Design	73	79	49

Note: All dimensions in mm unless stated otherwise.

#### Tab. 2 Available versions and OS-Nos (OS=Ordering Specification)

Туре	EN 215 certification	Zero- position ('0')	Connection	Colour	Сар	OSNo.
Thera-4 Design and	•		M30 x 1.5	white/white	Honeywell Home	T2001
Thera-4 Design-DA with liquid-filled sensing element	•	•	M30 x 1.5	white/white	Honeywell Home	T2001W0
			DA type	white/white	Honeywell Home	T2001DA
		•	DA type	white/white	Honeywell Home	T2001DAW0
	•		M30 x 1.5	white/chrome	Honeywell Home	T2021
	•	•	M30 x 1.5	white/chrome	Honeywell Home	T2021W0
			DA type	white/chrome	Honeywell Home	T2021DA
		•	DA type	white/chrome	Honeywell Home	T2021DAW0

### FUNCTION

Radiator thermostats of this type control the TRV body. The air passing around the sensor of the radiator thermostat causes the sensor to expand when the temperature rises. The expanding sensor closes the TRV accordingly. When the room temperature changes the TRV opens or closes proportionally. Only the amount of water required to maintain the room temperature set on the radiator thermostat is allowed to flow through the valve.

#### **EN 215 INFORMATION**

All radiator thermostats of this type with M30x1.5 connection in connection with certified Honeywell Home TRV bodies conform to the European Standard EN 215.

Parameter	Thera-4 DesignT2001, T2021	EN 215 Requirements
Min. set point temperature	6 °C (43 °F)	5 - 12 °C (41 - 54 °F)
Max. set point temperature	28 °C (82 °F)	≤ 32 °C (90 °F)
Hysteresis	0.45 K	1.0 K
Influence of differential pressure	0.22 K	≤ 1.0 K
Influence of heating medium	0.8 K	≤ 1.5 K
Response time	23 min	≤ 40 min

Note:All °C- and °F - values specified at ideal incident flow. This can differ from stated values depending on installation position and air flow.Note:Influence of differential pressure depends on TRV body used.

#### SET POINT

#### Tab. 4 Radiator thermostats of this type with zero-position ('0')

Set point	0	*	1	2	3	4	5
°C	1	6	14	18	21	24	28
°F	34	43	57	64	70	75	82

# Tab. 5 Radiator thermostats of this type without zero-position ('0')

#### Radiator thermostats without zero-position ('0')

Set point	*	1	2	3	4	5
°C	6	14	18	21	24	28
°F	43	57	64	70	75	82

Note: All °C and °F-values approximate. Heating can freeze when radiator thermostats with zero-position are set at position '0'. Zeroposition is also thermostatically controlled - when temperature falls the TRV may open.

## INSTALLATION EXAMPLES

#### **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 Home
- Please contact us if you should have any special requirements or needs

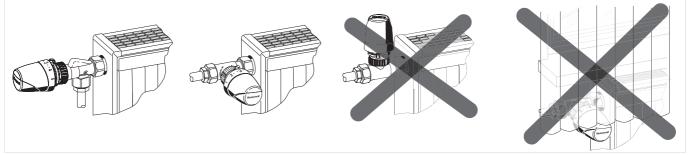


Fig. 2 Correct and false installation positions

#### ACCESSORIES

	Description	n	Dimension	Part No.
	TA6900A	Theft - protection ring		
		white (RAL9016)		TA6900A001
	TA3000C	Range stops		
		10 x blue and 10 x red		TA3000C001
		20 x white (RAL9016)		TA3000C002
	TA1000A	Decoring for connection nut		
		white (RAL9016) 10 pair, 20 pieces		TA1000A001
		chrome 10 pair, 20 pieces		TA1000A002
	VA8210A	Special tool for assembly of radiator thermost	ats	
C				VA8210A001
	TA1010HZ	HZ - Adapter		
Ö		HZ-Adapter from M28 x 1.5 with 9.5 mm closing dimension to M30 x 1.5 with 11.5 mm closing dimension		TA1010HZ01
	TA1010DA	DA - Adapter from Danfoss		
Service Service		Snap connection RA to M30 x 1.5		TA1010DA01

For more information

homecomfort.resideo.com/europe



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