# Honeywell Home Radiator Valves and Thermostats



# T4000 Series

## Thera-200 Design

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 x 1.5 connection are suitable for all TRV body and radiator inserts with M30 x 1.5 connection and 11.5 mm closing dimension.

#### **FEATURES**

- Conforms with M30 x 1.5 connection to European standard EN 215
- Equipped with liquid sensor
- Modern ergonomical design
- Compact size
- Easy to clean

#### **SPECIFICATIONS**

Thermostat connection:	M30 x 1.5
Setpoint range:	<b>*</b> -1-6
Temperature range:	6 - 26 °C (43 - 79 °F)
Closing dimension:	11.5 mm

#### 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 (black or white) or metal-plated (chromed or brushed)
- Socket, support cage and spindle assembly made of plastic
- Sensor filled with liquid
- Connection nut made of nickel- or chrome-plated brass

#### **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.

#### **DIMENSIONS AND ORDERING INFORMATION**

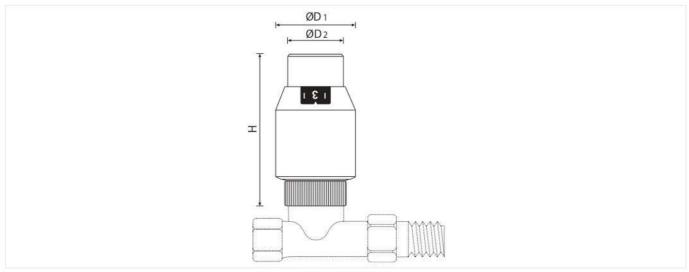


Fig. 1 Dimensions

Tab. 1 Dimensions

Туре	H closed	H open	ØD <sub>1</sub>	ØD <sub>2</sub>
Thera-200 Design	75	79	43	33

Note: All dimensions in mm unless stated otherwise.

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

Туре	EN 215 certification	Connection	Colour (Handle/Cap)	OSNo.
Thera-200 Design	•	M30 x 1.5	white/chrome	T4021
	•	M30 x 1.5	white/chrome	T4021GB
		M30 x 1.5	black/chrome	T4321
	•	M30 x 1.5	black/chrome	T4321GB
	•	M30 x 1.5	chrome/chrome	T4221
	•	M30 x 1.5	chrome/chrome	T4221GB
	•	M30 x 1.5	brushed/brushed	T4111
Thera-200 Design theft-protected	•	M30 x 1.5	brushed/brushed	T4111GB
	•	M30 x 1.5	white/chrome	T4021V1

#### **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.

Tab. 3 Comparison of radiator thermostats of this type specs and EN 215 requirements

Parameter	Thera - 200 Design	EN 215 Requirements
Min. set point temperature	6 °C (43 °F)	5 - 12 °C (41 - 54 °F)
Max. set point temperature	26 °C (79 °F)	≤32 °C (90 °F)
Hysteresis	0.25 K	≤ 1.0 K
Influence of differential pressure	0.3 K	≤ 1.0 K
Influence of heating medium	1.0 K	≤1.5 K
Response time	20 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 Set point temperature

Set point	closed	*	1	2	3	4	5	6
°C		6	11	14	17	20	23	26
°F		43	52	57	63	68	73	79

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

### **INSTALLATION EXAMPLE**

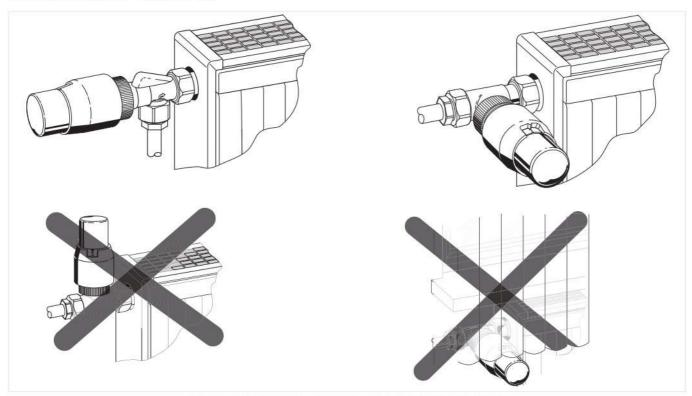


Fig. 2 Correct and false installation positions for Non-UK-version

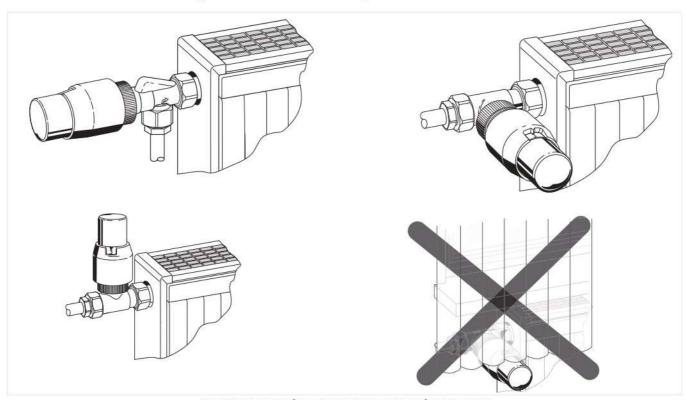


Fig. 3 Correct and false installation positions for UK-version

#### 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

#### **ACCESSORIES**

	Description	1	Dimension	Part No.
n	TA1010HZ	HZ - Adapter		
		HZ-Adapter from M28 $\times$ 1.5 with 9.5 mm closing dimension to M30 $\times$ 1.5 with 11.5 mm closing dimension		TA1010HZ01
	<b>TA1010DA</b>	DA - Adapter from Danfoss		
		Snap connection RA to M30 x 1.5		TA1010DA01