T7000 Series

Thera-2080

Heavy - Duty Radiator Thermostat

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.

011

FEATURES

- Heavy duty and robust version, especially designed for industrial, commercial and public buildings
- Conforms with M30 x 1.5 connection to European standard EN 215
- Equipped with liquid sensor
- Equipped with Memory-clip

SPECIFICATIONS

Thermostat connection: HW type:	 M30 x 1.5
Setpoint range with zero position:	0 - ❄ - 1 - 5
Setpoint range without zero position:	❄ - 1 - 5 ❄ - 1 - 3
Temperature with zero position:	1 - 28 °C (34 - 82 °F)
Temperature without zero position:	6 - 28 °C (43 - 82 °F) 6 - 21 °C (43 - 70 °F)
Closing dimension: HW type:	 11.5 mm
Bending force:	> 1000 N

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
- Internal or remote sensor
- Liquid sensor
- Spindle assembly
- Connection nut

MATERIALS

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

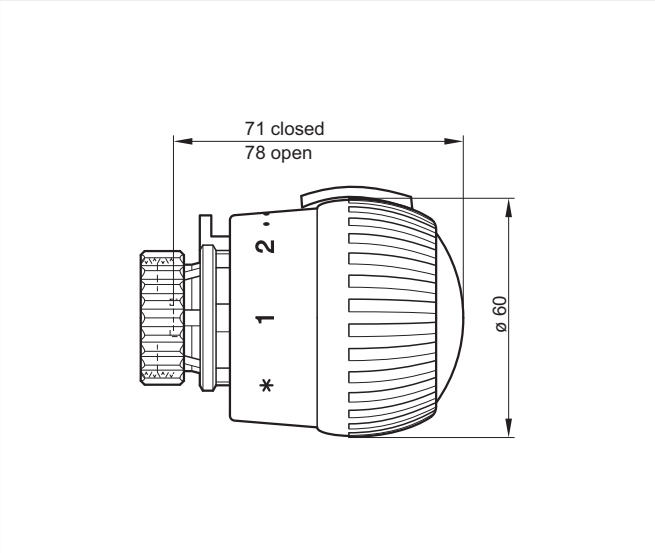

Fig. 1 Thera-2080 with internal sensor

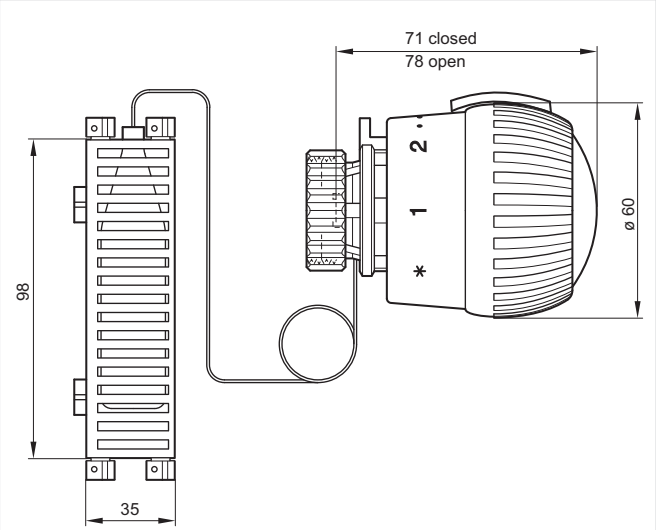

Fig. 2 Thera-2080 with remote sensor

Note: All dimensions in mm unless stated otherwise.

Tab. 1 Available versions and OS-No (OS = Ordering Specification)

Type	EN 215 certification	Zero-position ('0')	Limited to position 3	Connection	Capillary tube length	Colour	Setpoint range	OS.-No.
Thera-2080 with internal sensor	•			M30 x 1.5	-	white	❄ - 1..5	T7001
	•		•	M30 x 1.5	-	white	❄ - 1..3	T7001B3
	•	•		M30 x 1.5	-	white	0 - ❄ - 1..5	T7001W0
Thera-2080 with remote sensor	•			M30 x 1.5	2.0 m	white	❄ - 1..5	T700120
	•	•		M30 x 1.5	2.0 m	white	0 - ❄ - 1..5	T700120W0

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

	Thera-2080 without zero-position	Thera-2080 with remote sensor, without zero-position	EN 215 requirements
Min. set point temperature	6 °C (43 °F)	6 °C (43 °F)	5 - 12 °C (41 - 54 °F)
Max. set point temperature	28 °C (82 °F)	28 °C (82 °F)	≤ 32 °C (90 °F)
Hysteresis	0.3 K	0.4 K	≤ 1.0 K
Influence of differential pressure	0.2 K	0.4 K	≤ 1.0 K
Influence of heating medium	0.5 K	0.45 K	≤ 1.5 K
Response time	27 min.	10 min.	≤ 40 min.
Control accuracy	0.2 K	0.2 K	≤ 1.2 K

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.

INSTALLATION EXAMPLE

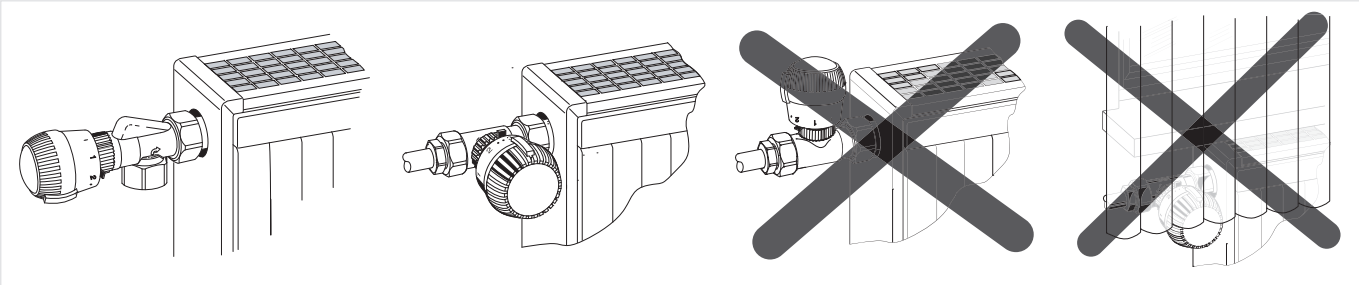

Fig. 3 Correct and false installation positions for radiator thermostats with internal sensor

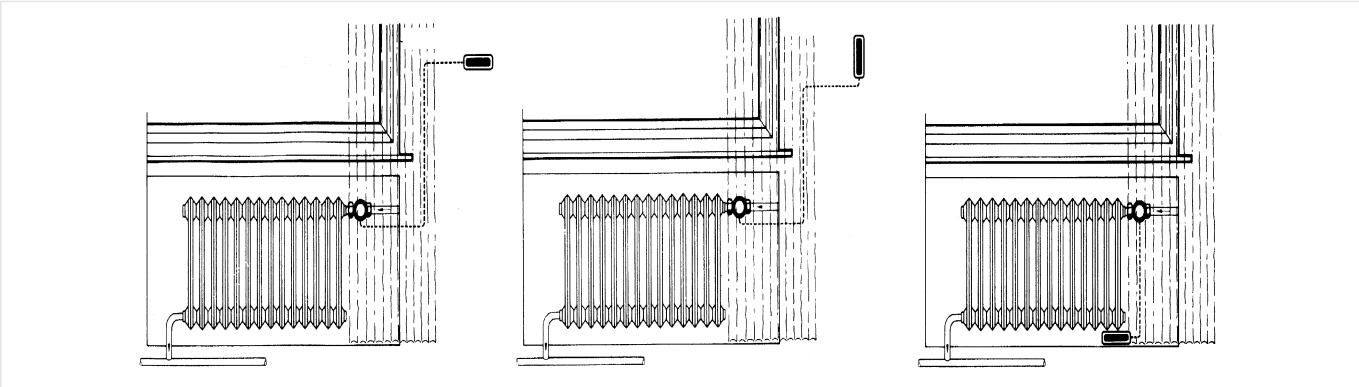

Fig. 4 Thera-2080 with remote sensor

SET POINT

Tab. 3 Radiator thermostats of this type with zero-position ('0')

Setpoint	0	❄	1	2	3	4	5
°C	1	6	11	16	21	25	28
°F	34	43	52	61	70	77	82

Tab. 4 Radiator thermostats of this type without zero-position ('0')

Setpoint		❄	1	2	3	4	5
°C		6	11	16	21	25	28
°F		43	52	61	70	77	82

Tab. 5 Radiator thermostat (T7001B3) without zero-position ('0')

Setpoint		❄	1	2	3		
°C		6	11	16	21		
°F		43	52	61	70		

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.

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		Dimension	Part No.
	**TA2080A**	**Theft - protection ring**		
		with Allan screws		TA2080A001
	**TA1010DA**	**DA - Adapter from Danfoss**		
		Snap connection RA to M30 x 1.5		TA1010DA01
	**TA1010HZ**	**HZ - Adapter**		
		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
	**VA8210A**	**Special tool for assembly of radiator thermostats**		
				VA8210A001

For more information

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