



T100-Series

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.

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

For T100M-F

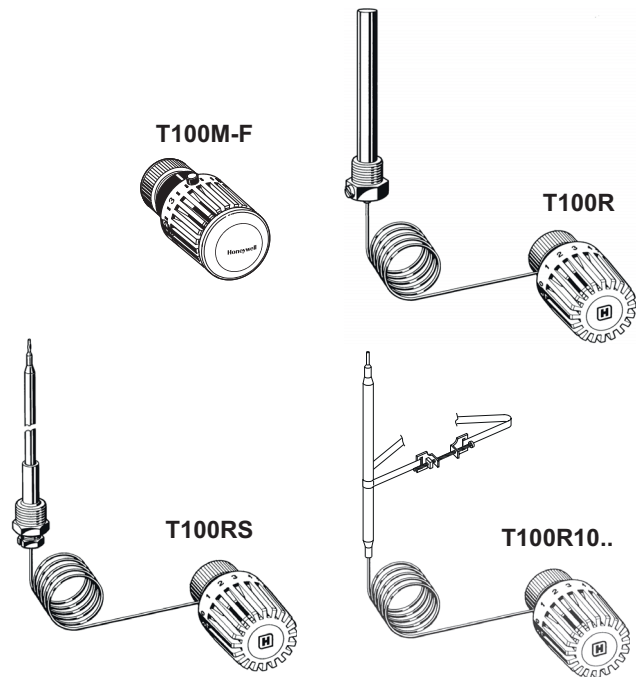
- With internal liquid-filled sensing element
- Red economy button for optimal setting

For T100R/RS

- Remote variants
- Liquid-filled sensing element
- T100R with additional immersion pocket for sensor
- Replacement of T100R thermostat can be carried out without draining the system
- T100RS is installed with rapid-response sensor directly immersed in the heating medium
- T100R1004 and T100R1012 with contact sensor and strap length of 3 m

SPECIFICATIONS

Thermostat connection:	M30 x 1.5
Max. flow temperature:	120 °C (248 °F)
Max. operating pressure:	10 bar (145 psi)
Max. differential pressure:	1.2 bar (17.4 psi)
Time constant:	10 s (T100R) 5 s (T100RS)
Capillary tube length:	2 m
Setpoint range:	see table setpoint and temperature range
Temperature range:	see table setpoint and temperature range
Closing dimension:	11.5 mm



DESIGN

The radiator thermostat consists of:

- External liquid-filled sensor with capillary tube
 - T100R with additional immersion pocket for sensor
 - T100RS with screw-in sensor
 - T100R10.. with contact sensor
- Handwheel with lid and socket
- T100M-F with red economy button
- T100M-F with internal liquid-filled sensing element
- Connection nut standard (T100M-F and T100R)

MATERIALS

- Handwheel socket and lid made of plastic, white to RAL9016
- Socket made of black plastic (T100R/RS)
- Socket made of white plastic to RAL9016 (T100M-F)
- Economy button made of red plastic (T100M-F)
- Immersion pocket made of nickel-plated brass (T100R/RS)
- Support cage and spindle assembly made of plastic
- Connection nut made of nickel-plated brass

FUNCTION

For T100M-F

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.

For T100R/RS

Thermostats of this type reliably control the temperature in a hot water generator according to the setting and without external energy source. The sensor expands or contracts according to the temperature and the movement of the sensor in turn opens or closes the aperture in the valve body through which water flows to the hot water generator.

DIMENSIONS

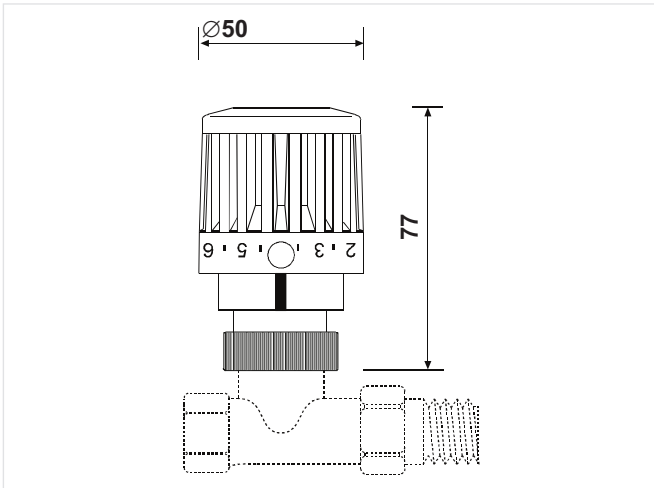


Fig. 1 T100M-F

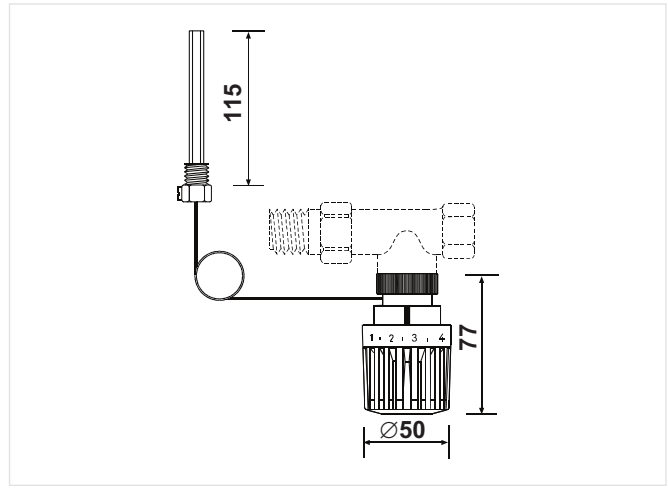


Fig. 2 T100R

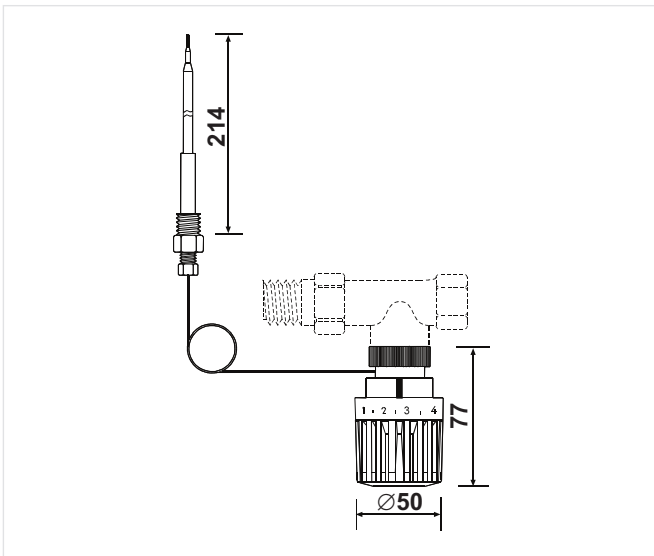


Fig. 3 T100RS

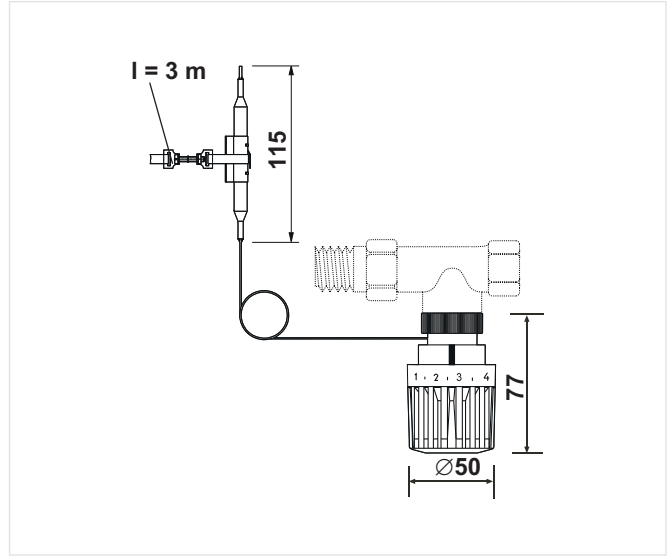


Fig. 4 T100R1004/1012

Note: All dimensions in mm unless stated otherwise.

ORDERING INFORMATION

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

OS-No.	Remote	Sensor element	Zero-Position	T min °C	T max °C	R1 1/2" immersion pocket	R1 1/2" screw in sensor	Contact sensor
T100M-264F		liquid		7	27			
T100M-364F		liquid	yes	1	27			
T100R-AA	2 m	liquid	yes	10	50	yes		
T100R-AB	2 m	liquid		30	70	yes		
T100RS-DA	2 m	liquid	yes	10	50		yes	
T100RS-DB	2 m	liquid		30	70		yes	
T100R1004	2 m	liquid	yes	10	50			yes
T100R1012	2 m	liquid		30	70			yes

Tab. 2 Setpoint and temperature range

OS-No.	Temperature °C (°F)							
	1 (34)	7 (45)	8 (46)	12 (54)	16 (61)	20 (68)	24 (75)	27 (81)
T100M-264F		✱	1	2	3	-	5	6
T100M-364F	0	✱	1	2	3	-	5	6

OS-No.	Temperature °C (°F)									
	10 (50)	13 (55)	17 (63)	20 (68)	23 (73)	27 (81)	30 (86)	33 (91)	37 (99)	40 (104)
T100R-AA	0	1	2	3	4	5	6	7	8	9
T100R-AB							0	1	2	3
T100RS-DA	0	1	2	3	4	5	6	7	8	9
T100RS-DB							0	1	2	3
T100R1004	0	1	2	3	4	5	6	7	8	9
T100R1012							0	1	2	3

OS-No.	Temperature °C (°F)								
	43 (109)	47 (117)	50 (122)	53 (127)	57 (135)	60 (140)	63 (145)	67 (153)	70 (158)
T100R-AA	10	11	12						
T100R-AB	4	5	6	7	8	9	10	11	12
T100RS-DA	10	11	12						
T100RS-DB	4	5	6	7	8	9	10	11	12
T100R1004	10	11	12						
T100R1012	4	5	6	7	8	9	10	11	12

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: 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 EXAMPLES

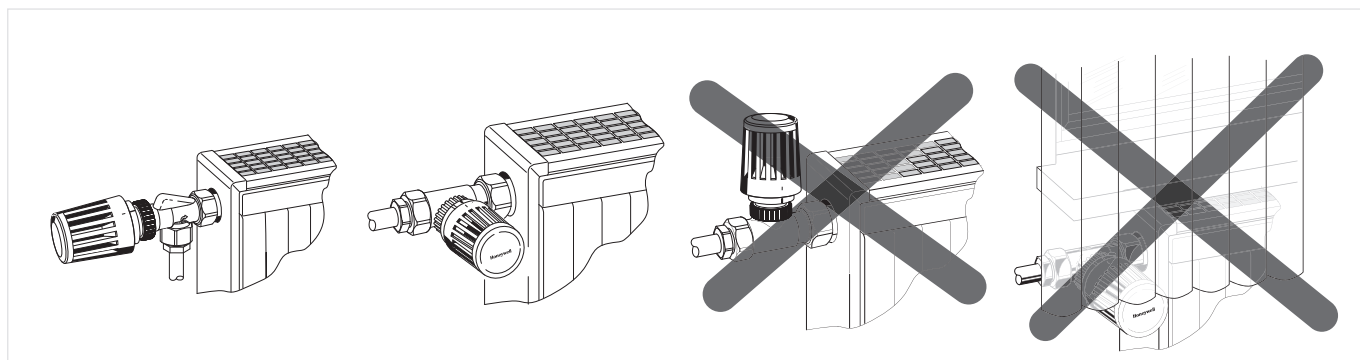




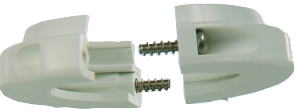


Fig. 5 Correct and false installation positions for radiator thermostats with internal sensor

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.
	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
	TA1000A Decoring for connection nut		
	white (RAL9016) 10 pair, 20 pieces		TA1000A001
	chrome 10 pair, 20 pieces		TA1000A002
	TA6900A Theft - protection ring		
	white (RAL9016)		TA6900A001

For more information

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