

**Pendulum room temperature measuring transducers,
calibratable, with multi-range switching
and active output**

Calibratable resistance thermometer **THERMASGARD® RPTM 1** with eight switchable measuring ranges, continuous output, terminal box enclosure made of impact-resistant plastic and enclosure cover with quick-locking screws, with or without optional display (for displaying actual temperature). This room pendulum sensor is specifically designed for temperature detection in larger rooms and halls. Due to the measuring method employed by this pendulum room temperature sensor in combination with its positioning in the room, an excellent measuring result that is representative of the room is achieved as ambient air of the room is circulating evenly around the sensor. These temperature transmitters are factory-calibrated. Adjustment / fine adjustment by the user is possible (zero point offset is adjustable).

TECHNICAL DATA

Power supply:	24V AC / DC (± 10 %) for U variant 15...36V DC for I variant, depending on working resistance, residual ripple stabilised ± 0.3V
Working resistance:	$R_a(\text{ohm}) = (U_b - 14 \text{ V}) / 0.02 \text{ A}$ for I variant
Load resistance:	$R_L > 5 \text{ kOhm}$ for U variant
Power consumption:	< 1.0 VA / 24 V DC; < 2.2 VA / 24 V AC
Sensor:	Pt1000, DIN EN 60751, class B
Sensor protection:	plastic sinter filter, Ø 16 mm, L = 35 mm, exchangeable (optional metal sinter filter, Ø 16 mm, L = 32 mm)
Measuring ranges:	multi-range switching with 8 switchable measuring ranges see table (other ranges optional) T_{min} -5 °C, T_{max} +60 °C, with manual zero point correction (± 10 K)
Deviation, temperature:	typically ± 0.2 K at +25 °C
Output:	0 - 10 V or 4...20 mA
Ambient temperature:	measuring transducer -5...+60 °C
Connection type:	2- or 3-wire connection
Enclosure:	plastic, UV-stabilised, material polyamide, 30 % glass-globe reinforced, with quick-locking screws (slotted / Phillips head combination), colour traffic white (similar to RAL 9016), enclosure cover for display is transparent!
Enclosure dimensions:	72 x 64 x 37.8 mm (Tyr 1 without display) 72 x 64 x 43.3 mm (Tyr 1 with display)
Cable gland:	M 16 x 1.5, including strain relief, exchangeable, max. inner diameter 10.4 mm
Connection cable:	PVC, H03VV-F, 2 x 0.5 mm ² , KL = approx. 1.5 m (other lengths optional)
Protective tube:	stainless steel V2A (1.4301), Ø = 16 mm, NL = 142 mm
Electrical connection:	0.14 - 1.5 mm ² , via terminal screws
Humidity:	< 95 % r. H., non-precipitating air
Protection class:	III (according to EN 60730)
Protection type:	IP 65 (according to EN 60529)
Standards:	CE conformity, electromagnetic compatibility according to EN 61326, according to EMC directive 2014 / 30 / EU
Optional:	Two-line display with illumination , cutout approx. 36 x 15 mm (W x H), for displaying the ACTUAL temperature and the internal diagnostics (measuring range exceeded, measuring range not reached, sensor breakage, sensor short circuit)



RPTM 1

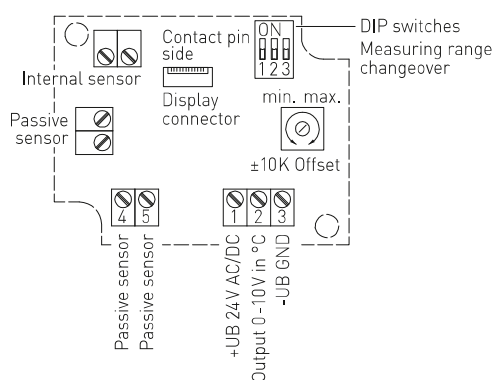
Display and internal diagnostics

THERMASGARD®
Measuring transducer with display

	Standard
	Measuring range exceeded
	Measuring range not reached
	Sensor breakage
	Sensor short circuit

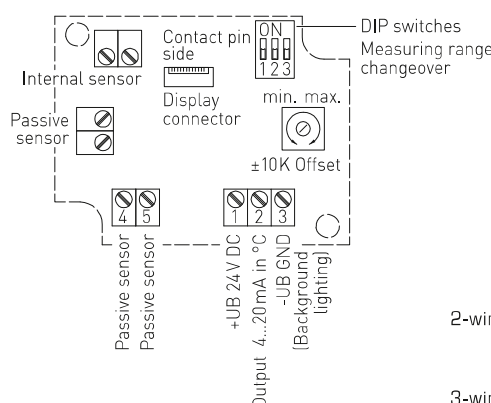
3-wire connection

RPTM 1-U



2- or 3-wire connection*

RPTM 1-I

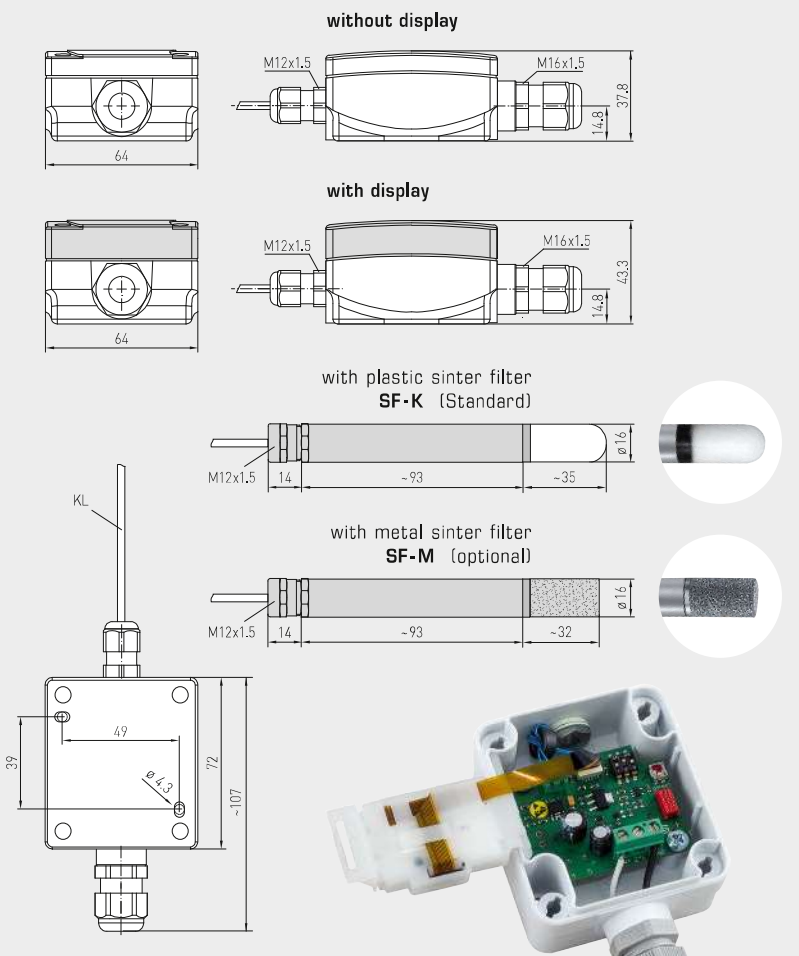


Connection*:

2-wire connection for devices
with / without display
(not illuminated)

3-wire connection for devices
with illuminated display

Dimensional drawing



Measuring ranges (adjustable)	DIP 1	DIP 2	DIP 3
-20...+ 150 °C	ON	ON	ON
-50... + 50 °C	OFF	ON	ON
-20... + 80 °C	ON	OFF	ON
-30... + 60 °C	OFF	OFF	ON
0... + 40 °C	ON	ON	OFF
0... + 50 °C (default)	OFF	ON	OFF
0...+ 100 °C	ON	OFF	OFF
0...+ 150 °C	OFF	OFF	OFF

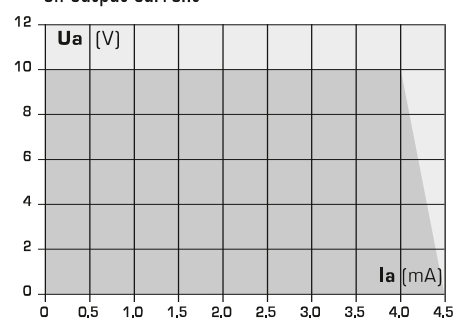
(observe max. permissible temperature ranges!)



RPTM 1
with display



Dependency of output voltage on output current



Type / WG01	Sensor	Output	Type	Item No.	Price
RPTM 1 - I				IP65, I-variant	
RPTM1-I	Pt1000	4...20 mA	Remote sensor	1101-1162-0219-910	128,00 €
RPTM 1 - U				IP65, U-variant	
RPTM1-U	Pt1000	0 - 10 V	Remote sensor	1101-1161-0219-910	128,00 €
Extra charge:	Other ranges optional				21,42 €
	Two-line display with illumination				42,02 €
	2-wire connecting leads, per running meter (PVC)			on request	
Accessories					
SF-M	Metal sinter filter, Ø 16 mm, L = 32 mm, exchangeable, stainless steel V4A (1.4404)			7000-0050-2200-100	35,70 €