

**Pendulum room temperature measuring transducer,
(with stainless steel sleeve), calibratable,
with Modbus connection**

Calibratable room pendulum temperature measuring transducer (with sleeve)

THERMASGARD® RPTM1-Modbus-T3, with Modbus connection, in an impact-resistant plastic housing with quick-locking screws, cable sensor with stainless steel sleeve and plastic sinter filter (exchangeable), optionally with/without display, measures temperature (-50...+150 °C). International system of units **SI** (default) can be changed to **imperial** (via Modbus).

The pendulum sensor has been specially designed to detect the temperature in larger rooms or halls. The resistance thermometer achieves a very good representative measurement result due to its positioning in the room.

Innovative Modbus sensor with galvanically separated RS485 Modbus interface, selectable bus termination resistance, DIP switch for setting the bus parameters and bus address in current-free state, internal LEDs for telegram status display, two separate push-in terminals and large three-line display (illuminated, with customised programming in the 7-segment range and dot-matrix range). Uses **internal diagnostics** to detect sensor breakage or sensor short circuit as errors. The error messages can be retrieved via Modbus and are shown on the display. The sensor is factory-calibrated; an environmental precision adjustment by an expert is possible.

TECHNICAL DATA

Voltage supply:	24 V AC (± 20%); 15...36 V DC
Power consumption:	< 1.2 W / 24 V DC; < 1.8 VA / 24 V AC
System of units:	SI (default) or Imperial (switchable via Modbus)
Data points:	Temperature [°C] [°F]
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 range:	-50...+150 °C
Deviation, temperature:	typically ± 0.2 K at +25 °C
Zero point offset:	± 10 °C
Ambient temperature:	Measuring transducer -30...+70 °C
Medium:	clean air and non-aggressive, non-combustible gases
Bus protocol:	Modbus (RTU mode), address range 0... 247 selectable
Baud rate:	9600, 19200, 38400 Baud
Signal filtering:	0,3 s / 1 s / 10 s
Housing:	plastic, UV-resistant, material polyamide, 30% glass-globe reinforced, with quick-locking screws (slotted / Phillips head combination), colour traffic white (similar to RAL 9016), housing cover for display is transparent!
Housing dimensions:	108 x 78.5 x 43.3 mm (Tyr 3 without display) 108 x 78.5 x 45.8 mm (Tyr 3 with display)
Cable connection:	cable gland , plastic (2x M20 x 1.5; with strain relief, exchangeable, inner diameter 8 - 13 mm) or M12 connector according to DIN EN 61076-2-101 (optional on request)
Connection cable:	PVC, H03VV-F, 2 x 0.5 mm², cable length (KL) = approx. 1.5 m (other lengths optional)
Protective tube:	stainless steel V2A (1.4301), Ø=16 mm, NL = 142 mm
Electrical connection:	0.2 - 1.5 mm², using push-in terminals
Permissible air humidity:	< 95 % RH, non-precipitating air
Protection class:	III (according to EN 60 730)
Protection type:	IP 65 (according to EN 60 529)
Standards:	CE conformity, electromagnetic compatibility according to EN 61326, according to EMC Directive 2014 / 30 / EU
Features:	Display with illumination , three-line, programmable, cutout approx. 51 x 29 mm (W x H), for displaying the actual temperature, error message or an individually programmable display value
Internal diagnostics:	Error 1 at sensor breakage Error 2 at sensor short circuit

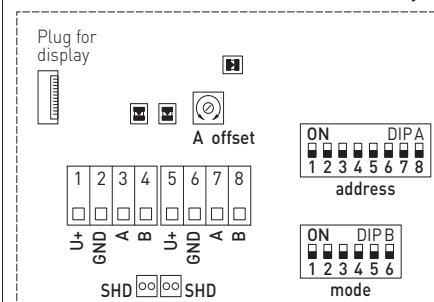
RPTM1-Modbus-T3



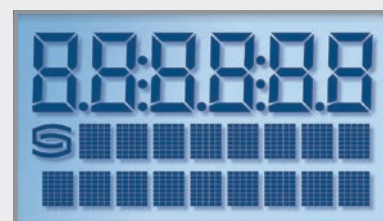
Device version
with **M12 connector**
(optional on request)



Schematic diagram

Modbus
Tyr 3

DIP A: Bus address LED (internal status)
DIP B: Bus parameters (Baud rate, parity...) Offset correction
 Telegram indicator Reception (LED green) Error (LED red) Shielding

Programmable
display screenModbus
Tyr 3



S+S REGELTECHNIK

Wireless
W-Modbus
→ Onlineshop

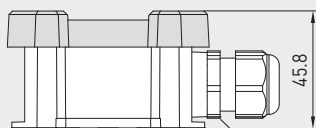
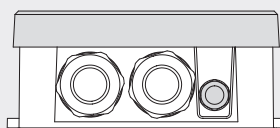
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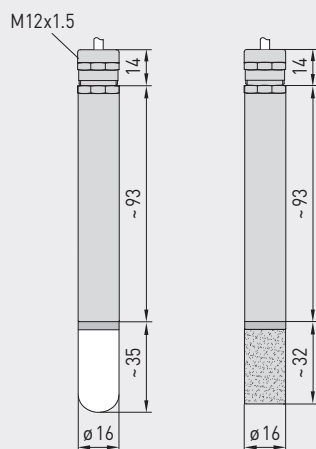
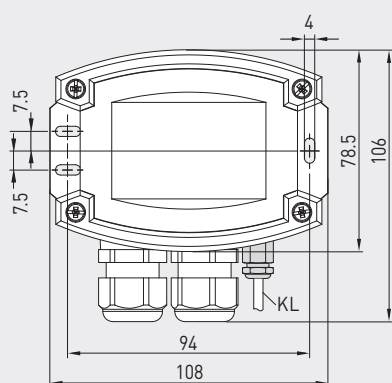
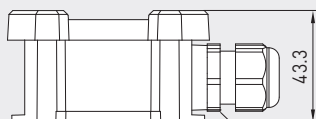
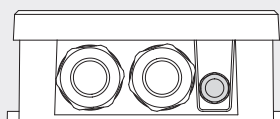
Dimensional drawing
[mm]

RPTM1 - Modbus-T3

with display



without display



RPTM1 - Modbus-T3
with display



MF-16-K
Mounting flange,
plastic (optional)



SF-K

with plastic sinter filter
(standard)




SF-M

with metal sinter filter
(optional)



THERMASGARD® RPTM 1 - Modbus-T3 Pendulum room temperature measuring transducer (with stainless steel sleeve)

Type / WG01	Sensor	Output	Type	Display	Item No.	Price
RPTM1 - Modbus-T3						
RPTM1-Modbus-T3	Pt1000	Modbus	Remote sensor		1101-6286-0210-000	221,10 €
RPTM1-Modbus-T3 LCD	Pt1000	Modbus	Remote sensor		1101-6286-4210-000	277,51 €
Extra charge:	per running metre of connecting lead (PVC)				on request	
	Cable connection with M12 connector according to DIN EN 61076-2-101				on request	
Note:	System of units SI (default) or imperial (can be changed via Modbus).					
ACCESSORIES						
KA2-Modbus	Communication adapter (USB/RS485) for system connection				1906-1200-0000-100	220,41 €
LA-Modbus	Line termination device (with terminating resistor) as an active bus termination				1906-1300-0000-100	82,20 €
SF-M	Metal sinter filter , Ø 16 mm, L = 32 mm, exchangeable stainless steel V4A (1.4404)				7000-0050-2200-100	43,60 €
MF-16-K	Mounting flange plastic (optional)				7100-0030-0000-000	9,85 €
For further information, see last chapter Accessories!						