

**Room operating temperature sensor, on-wall,
for temperature, dew point,
calibratable, with Modbus connection**

The calibratable room temperature measuring transducer **THERMASGARD® RTM1-Modbus** with Modbus connection, in an elegant housing (Baldur 1) with snap-on lid, base with 4-hole attachment, optionally with/without display, for detecting room temperature (0...+50 °C). International system of units **SI** (default) can be changed to **imperial** (via Modbus).

The following parameters can be retrieved via Modbus: Temperature, dew point temperature. Available as a room control unit in various type versions with setpoint potentiometer (%).

A long-term stable, **digital temperature sensor** guarantees exact measurement results. The sensor is factory-calibrated; an environmental precision adjustment by an expert is possible. **Modbus sensor** with galvanically separated RS485 Modbus interface, selectable bus termination resistance, DIP switches for setting the bus parameters and bus address in a currentless state, internal LEDs for telegram status display and two-line display (illuminated, in the 7-segment and dot-matrix range, individually programmable).

RTM1-Modbus
Standard



TECHNICAL DATA

Power supply:	24 V AC (± 20 %) and 15...36 V DC
Power consumption:	< 1.0 W / 24 V DC; < 2.2 VA / 24 V AC
Sensor:	digital temperature sensor , low hysteresis, high long-term stability
System of units:	SI (default) or imperial (can be changed via Modbus)
Data points:	temperature [°C] [°F], dew point [°C] [°F], setpoint potentiometer
Measuring range:	0...+ 50 °C
Accuracy temperature:	typically ± 0.2 K at +25 °C
Zero point offset:	± 10 °C adjustable by potentiometer
Ambient temperature:	storage -35...+85 °C; operation 0...+50 °C
Medium:	clean air and non-aggressive , non-combustible gases
Communication:	Modbus (RTU cable)
Bus interface:	RS 485, galvanically isolated
Baud rate:	9600, 19200, 38400 Baud
Bus protocol:	Modbus (RTU mode), address range 0... 247 adjustable
Signal filtering:	4 s / 32 s
Electrical connection:	0.2 - 1.5 mm ² , via terminal screws
Housing:	plastic, flame retardant (UL 94 V-0), PC/ABS material, colour white (similar to RAL 9016)
Housing dimension:	85 x 85 x 27 mm (Baldur 1)
Installation:	wall mounting or on in-wall flush box, Ø 55 mm, base with 4 holes, for attachment to vertically or horizontally installed in-wall flush boxes for rear cable entry, with predetermined breaking point for cable entry from top/bottom in case of plain on-wall installation
Long-term stability:	± 1 % per year
Permissible air humidity:	< 95 % RH, non-precipitating air
Protection class:	III (according to EN 60 730)
Protection type:	IP 30 (according to EN 60 529)
Standards:	CE conformity according to EMC Directive 2014/30/EU
Features:	Display with illumination , two-line, programmable, cutout approx. 36 x 15 mm (W x H), to display actual temperature or a selectable parameter or an individually programmable display value
ACCESSORIES	see table

Display
Standard **RTM1-Modbus**

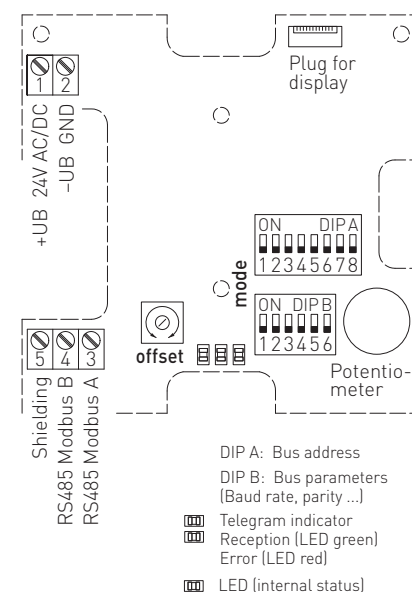


Temperature [°C] [°F]



Programmable display screen

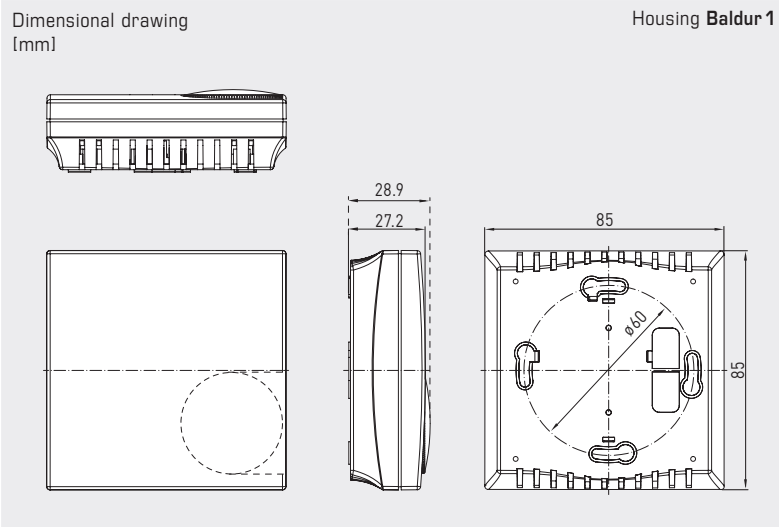
Schematic diagram **RTM1-Modbus**





S+S REGELTECHNIK

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RTM1-Modbus
with display



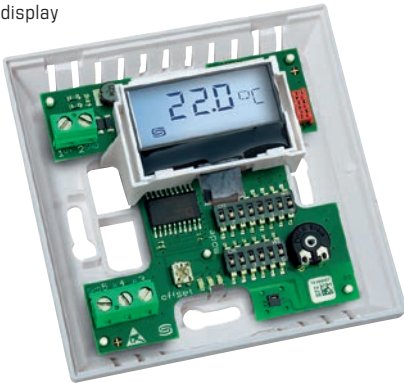
RTM1-Modbus-P
with display and
potentiometer



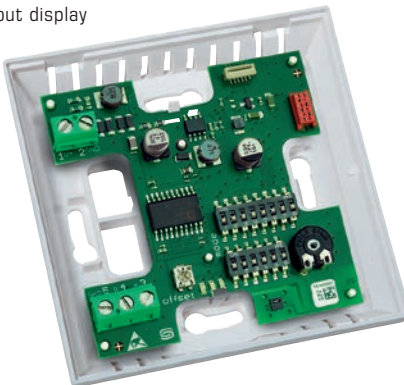
RTM1-Modbus-P
with potentiometer



RTM1-Modbus
with display



RTM1-Modbus
without display



THERMASGARD® RTM 1 - Modbus Room operating temperature sensor

Type/ WG01	Measuring Range	Output	Equipment	Display	Item No.	Price
RTM1-Modbus					IP30	
RTM1-Modbus	0...+50 °C	Modbus	-		1101-42A6-0000-000	127,13 €
RTM1-Modbus LCD	0...+50 °C	Modbus	-	■	1101-42A6-2000-000	188,23 €
RTM1-P-Modbus					IP30	
RTM1-Modbus P	0...+50 °C	Modbus	potentiometer		1101-42A6-0001-005	167,14 €
RTM1-Modbus P LCD	0...+50 °C	Modbus	potentiometer	■	1101-42A6-2001-005	301,01 €
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	236,11 €
LA-Modbus	Line termination device (with terminating resistor) as an active bus termination				1906-1300-0000-100	88,05 €