

# RSTHM-2

## Temperature and humidity room transmitter

The RSTHM-2 series are combined room transmitters which measure temperature, relative humidity and ambient light. They are Power over Modbus supplied and all the parameters are accessible via Modbus RTU.

### Key features

- Selectable temperature and relative humidity ranges
- 24 VDC Power over Modbus supply
- Bootloader for updating the firmware via Modbus RTU communication
- Ambient light sensor with adjustable 'active' and 'standby' level
- Modbus RTU (RS485)
- 3 LEDs with adjustable light intensity for status indication
- Long-term stability and accuracy

### Technical specifications

Supply voltage	24 VDC, Power over Modbus	
Maximum power consumption	0,312 W	
Nominal or average power consumption in normal operation	0,234 W	
Imax	13 mA	
Selectable temperature range	0–50 °C via Modbus RTU	
Selectable relative humidity range	0–100 % rH via Modbus RTU	
Accuracy	±0,4 °C (0–50 °C)	
	±3 % rH (0–100 % rH)	
Protection standard	IP30 (according to EN 60529)	
Ambient conditions	Temperature	0–50 °C
	Rel. humidity	0–100 % rH (non-condensing)

### Wiring and connections

#### RJ45 socket (Power over Modbus)

Pin 1	24 VDC	Supply voltage
Pin 2		
Pin 3	A	Modbus RTU communication, signal A
Pin 4		
Pin 5	/B	Modbus RTU communication, signal /B
Pin 6		
Pin 7	GND	Ground, supply voltage
Pin 8		



### Modbus registers



The Sensistant Modbus configurator allows you to easily monitor and/or configure Modbus parameters. The parameters of the unit can be monitored / configured through the 3SMODBUS software platform. You can download it from the following link:  
<https://www.sentera.eu/en/3SMCenter>  
 For more information about the Modbus registers, please refer to the product Modbus Register Map.



### Article codes

	Supply voltage	Connection type
<b>RSTHM-2</b>	Power over Modbus, 24 VDC	RJ45

### Area of use

- Monitoring indoor temperature and relative humidity in HVAC applications
- Suitable for residential and commercial buildings
- For indoor use only

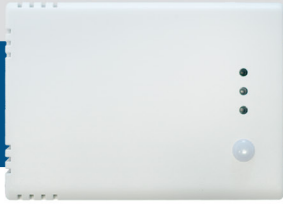
### Standards

- Low Voltage Directive 2014/35/EC
  - EN 60529:1991 Degrees of protection provided by enclosures (IP Code) Amendment AC:1993 to EN 60529
  - EN 60730-1:2011 Automatic electrical controls for household and similar use - Part 1: General requirements
- EMC directive 2014/30/EC:
  - EN 60730-1:2011 Automatic electrical controls for household and similar use - Part 1: General requirements
  - EN 61000-6-1:2007 Electromagnetic compatibility (EMC) - Part 6-1: Generic standards - Immunity for residential, commercial and light-industrial environments
  - EN 61000-6-3:2007 Electromagnetic compatibility (EMC) - Part 6-3: Generic standards - Emission standard for residential, commercial and light-industrial environments. Amendments A1:2011 and AC:2012 to EN 61000-6-3
  - EN 61326-1:2013 Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 1: General requirements
  - EN 61326-2-3:2013 Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 2-3: Particular requirements. Test configuration, operational conditions and performance criteria for transducers with integrated or remote signal conditioning.
- WEEE 2012/19/EC
- RoHS Directive 2011/65/EC

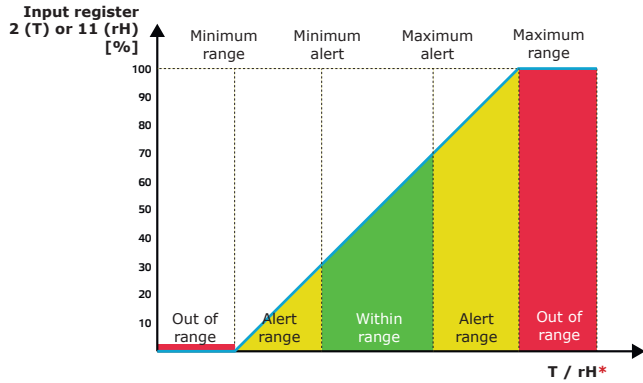


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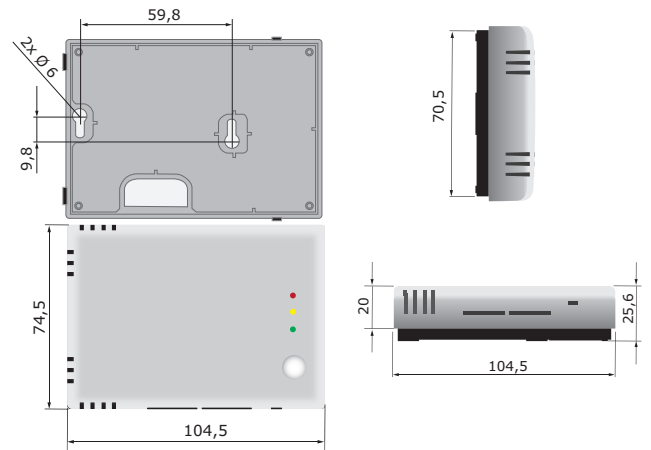


### Operational diagram(s)

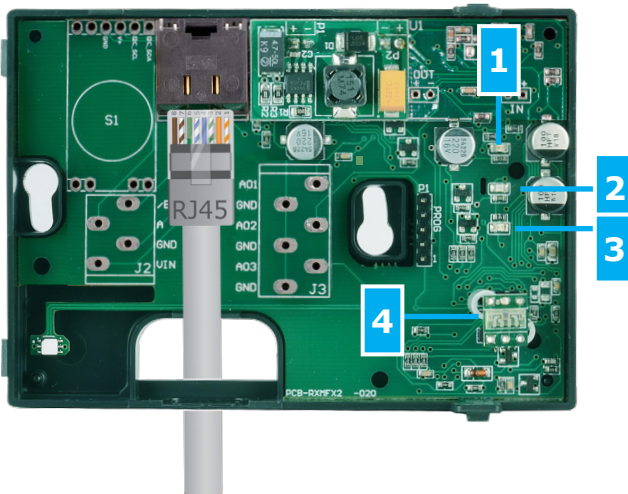


\*LED indications - T (default) and rH

### Fixing and dimensions

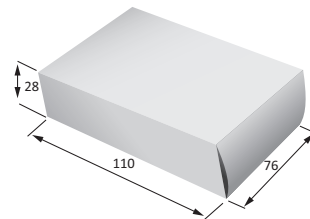


### Settings and indications



1 - Red LED	Continuous	Measured temperature or relative humidity are out of range
	Blinking	Communication with one of the sensors fails
2 - Yellow LED	On	Measured temperature or relative humidity are in the alert range
3 - Green LED	On	Measured temperature or relative humidity are within range
4 - Ambient light sensor		Low light intensity / Active / Standby
5 - RJ45 socket		Modbus communication with connected Master devices and PoM-voltage supply (24 VDC)
		Blinking LEDs indicate that packages are transmitted via Modbus RTU communication
Bootloader mode		When bootloader mode is activated, the green and yellow LEDs flash alternately
		After starting the bootloader application, the red LED starts blinking

### Packaging



Article	Packaging	Length [mm]	Width [mm]	Height [mm]	Net weight	Gross weight
RSTHM-2	Unit (1 pc.)	110	76	28	0,082 kg	0,095 kg
	Carton (24 pcs.)	485	175	77	1,96 kg	2,43 kg
	Box (144 pcs.)	510	410	270	10,80 kg	14,554 kg

### Global trade item numbers (GTIN)

Packaging	RSTHM-2
<b>Unit</b>	05401003011430
<b>Carton</b>	05401003301876
<b>Box</b>	05401003502693