



# RXT

## Room temperature transmitter / switch

The RXT series are combined room temperature transmitters / switches. Four pre-defined ranges provide ideal measurement windows with one user-definable range. These units are equipped with Modbus RTU (RS485) communication and have an analog output and a relay output.

### Key features

- Integrated sensor
- 1 analog and 1 relay output
- Modbus RTU (RS485) communication
- Multiple ranges as measurement windows available
- Selectable switching point by trimmer or via Modbus
- Selectable Hysteresis by jumpers or via Modbus
- Long-term stability and accuracy
- Blue LED operating indication

### Technical specifications

Outputs	1 analog output (0–10 VDC / 0–20 mA) 1 C/O relay output (230 VAC / 2 A)	
Power consumption	No load: maximum 25 mA Full load: maximum 45 mA	
Load resistance	0–10 VDC mode > 500 Ω 0–20 mA mode < 500 Ω	
Sensor temperature ranges (jumper selection)	0–30 °C 10–40 °C 20–50 °C 0–50 °C	
Sensor temperature range (Modbus selection)	0–50 °C, free selectable	
Hysteresis (jumper selection)	1 / 2 / 3 / 4 °C	
Hysteresis (Modbus selection)	1 / 2 / 3 / 4 / 5 °C	
Switching point	Selectable by trimmer or via Modbus RTU	
Protection standard	IP30 (according to EN 60529)	
Ambient conditions	Temperature	0–50 °C
	Rel. humidity	< 95 % rH (non-condensing)



### Article codes

	Supply	Connection
RXT-G	15–24 VAC ±10 % 18–34 VDC	3 – wire
RXT-F	18–34 VDC	4 – wire

### Area of use

- Temperature control in HVAC applications
- For indoor use only

### Wiring and connections

Vin	Positive DC voltage / AC ~
GND	Ground / AC ~
A	Modbus RTU (RS485) signal A
/B	Modbus RTU (RS485) signal /B
Ao1	Analog output (0–10 VAC / 0–20 mA)
GND	Ground
NO1	Normally open contact
COM1	Common contact
NC1	Normally closed contact
Connections	Cable cross section: max. 1,5 mm <sup>2</sup>

**Caution:** If a G-type article is using the same AC power supply source (transformer) as F-type article, a **SHORT CIRCUIT** may result when the power supply and analog signal terminals are connected to the same common ground! In this case always connect different article types to separate AC transformers or use the same article version.

If an AC power supply is used with any of the units in a Modbus network, the GND terminal should **NOT BE CONNECTED** to other units on the network or via the CNVT-USB-RS485 converter. This may cause permanent damage to the communication semiconductors and / or the computer!

### Modbus registers



The Sensistant Modbus configurator allows you to easily monitor and/or configure Modbus parameters.

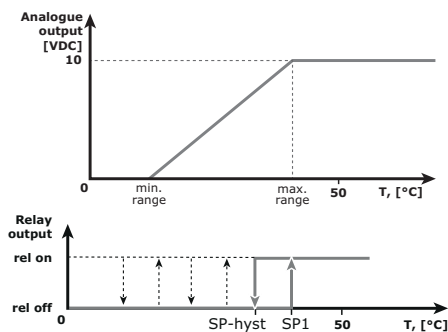
The parameters of the unit can be monitored / configured through the 3SModbus software platform. You can download it from the following link:

<https://www.sentera.eu/en/3SMCenter>



For more information about the Modbus registers, please refer to the product Modbus Register Map.

### Operational diagram(s)



### Standards

- Low Voltage Directive 2006/95/EC
- EMC Directive 2004/108/EC: EN 61326
- WEEE Directive 2012/19/EU
- RoHS Directive 2011/65/EU

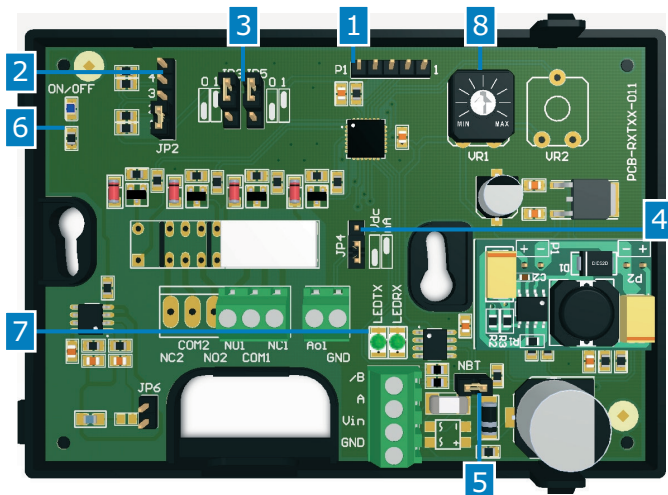




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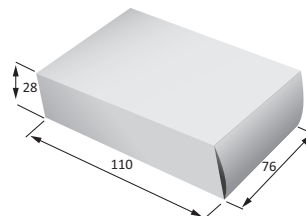
## Settings



1 – Modbus settings reset jumper JP1		Put and hold for 20 seconds
2 – Sensor range setting JP2		0–30 °C
		10–40 °C
		20–50 °C
		0–50 °C
3 – Hysteresis selection JP3 & JP5		1 °C
		2 °C
		3 °C
		4 °C
4 – Analog output selection JP4		0–10 VDC
		0–20 mA
5 – Network bus resistor jumper NBT		The RXT is the first or last unit
6 – Operating indication	Blinking blue	Initialization (30 s) / error
	Cont. blue	Normal operation
7 – Modbus communication indication	Blinking green	Transmitting
	Blinking green	Receiving
8 – Setpoint trimmer		VR1 - switching point for the relay

indicates ON position of the jumper.)

## Packaging



Article	Packaging	Length [mm]	Width [mm]	Height [mm]	Net weight	Gross weight
RXT-F	Unit (1 pc.)	110	76	28	0,08 kg	0,11 kg
RXT-G	Carton (24 pcs.)	492	182	84	2,02 kg	2,69 kg
	Box (144 pcs.)	514	414	274	12,10 kg	17,03 kg

## Fixing and dimensions

