Room sensor Temperature

For measuring the temperature in the room.
The room units can be seamlessly connected to existing third-party controllers.

Type Overview

Type	Output signal
01RT-1B-0	Pt1000
01RT-1C-0	Ni1000
01RT-1D-0	Ni1000TK5000
01RT-1F-0	NTC1k8
01RT-1L-0	NTC10k (10k2)
01RT-1M-0	NTC10k Pre (10k3)
01RT-1Q-0	NTC20k

Technical data

Electrical data	Electrical connection	Spring loaded terminal 0.5...1.5 mm²
	Cable entry	Wire openings at the backside (for In-wall wiring) and top-/bottom side (for On-wall wiring)
Functional data	Medium	Air
Measuring data	Measured values	Temperature
Specification temperature passive	Measuring range	0...50°C [32...122°F]
	Measuring current	Pt1000: <0.3 mA @ 0°C [32°F] Ni1000 (JCI): <5 mA @ 21°C [70°F] Ni1000TK5000: <0.3 mA @ 0°C [32°F] NTC1k8: <0.1 mA @ 25°C [77°F] NTC10k (10k2): <2 mA @ 25°C [77°F] NTC10k Pre (10k3): <2.7 mA @ 25°C [77°F] NTC20k: <0.5 mA @ 25°C [77°F]
	Accuracy temperature	Passive sensors depending on used type Pt.. : Class B, ±0.3°C @ 0°C [±0.5°F @ 32°F] Ni.. : ±0.4°C @ 0°C [±0.7°F @ 32°F] NTC1k8 : ±0.5°C @ 25°C [±0.9°F @ 77°F] NTC.. : ±0.2°C @ 25°C [±0.35°F @ 77°F]
	Time constant τ (63%) in the room	Typical 360 s
	Wall coupling factor	35 %
Safety data	Protection class IEC/EN	III, Protective Extra-Low Voltage (PELV)
	Degree of protection IEC/EN	IP30
	EU Conformity	CE Marking
	Certification IEC/EN	IEC/EN 60730-1 and IEC/EN 60730-2-9

Technical data

Safety data	Quality Standard	ISO 9001
	Ambient humidity	Max. 95% RH, non-condensing
	Ambient temperature	0...50°C [32...122°F]
	Storage temperature	-20...60°C [-4...140°F]
Materials	Housing	PC, white, RAL 9003

Safety notes

This device has been designed for use in stationary heating, ventilation and air-conditioning systems and must not be used outside the specified field of application. Unauthorised modifications are prohibited. The product must not be used in relation with any equipment that in case of a failure may threaten humans, animals or assets.

Ensure all power is disconnected before installing. Do not connect to live/operating equipment.

Only authorised specialists may carry out installation. All applicable legal or institutional installation regulations must be complied with during installation.

The device contains electrical and electronic components and must not be disposed of as household refuse. All locally valid regulations and requirements must be observed.

Remarks

General remarks concerning sensors

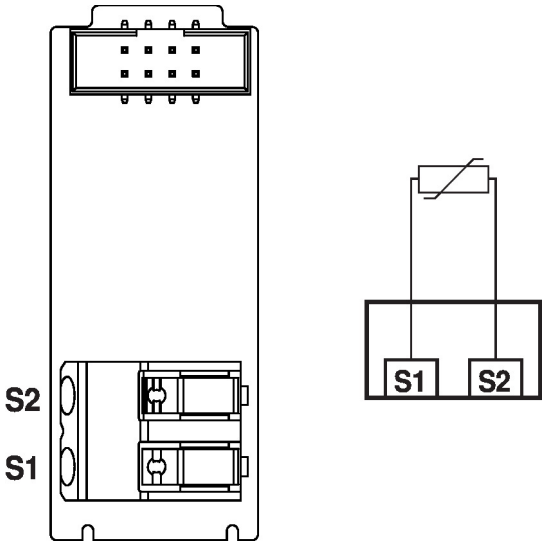
Due to self-heating with 2 wire passive sensors, the supply wire current affects the measurement accuracy. So the supply current should not be higher than the measuring current values specified in this data sheet.

When using lengthy connecting cables (depending on the cross section used), the cable resistance must be taken into account. The lower the impedance of the sensor used, the greater the effect of the line resistance on the measurement, because it generates an offset.

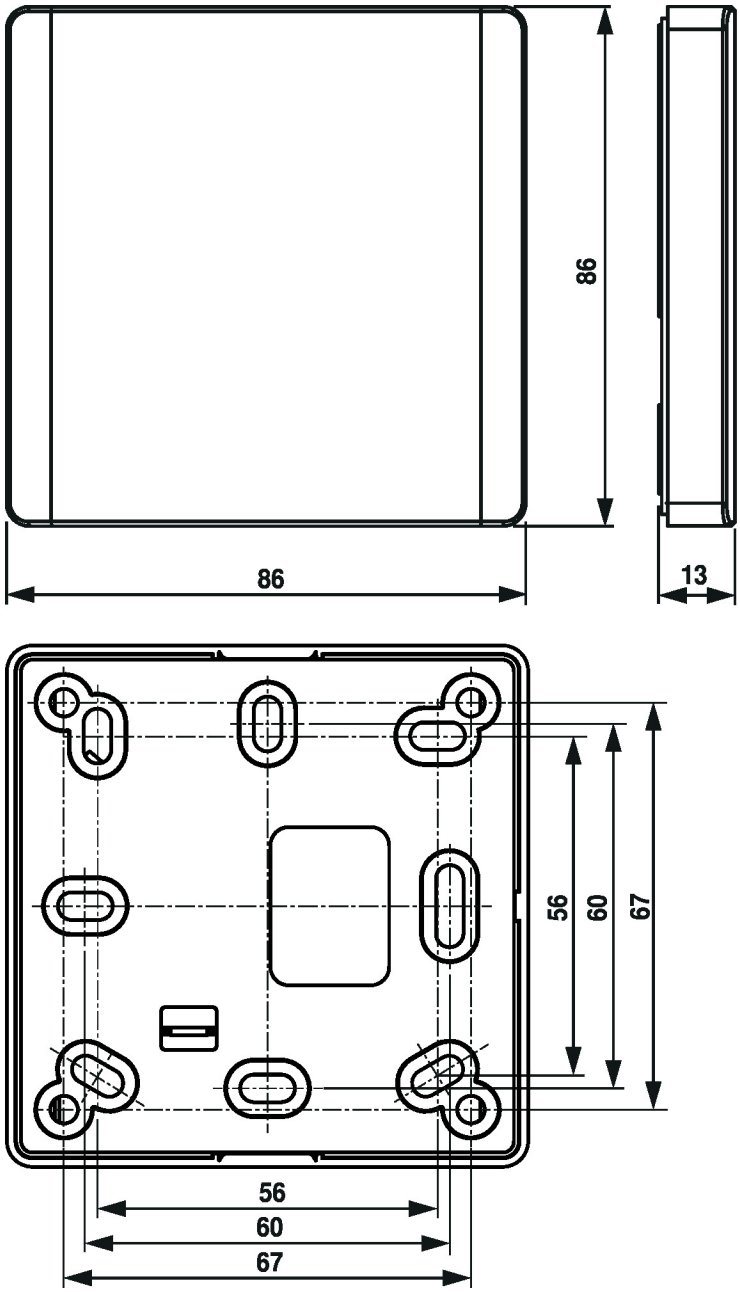
Parts included

Screws

Wiring diagram



Dimensions



Type	Weight
01RT-1B-0	0.048 kg
01RT-1C-0	0.048 kg
01RT-1D-0	0.048 kg
01RT-1F-0	0.048 kg
01RT-1L-0	0.048 kg
01RT-1M-0	0.048 kg
01RT-1Q-0	0.048 kg

Further documentation

- Installation instructions
- Resistance characteristics