

Room Operating Unit Temperature

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


Type Overview

Type	Output signal	Potentiometer
P-01RT-1B-0	Pt1000	0.7...1.3 kOhm
P-01RT-1F-0	NTC1k8	0.7...1.3 kOhm
P-01RT-1L-0	NTC10k (10k2)	2.5...8.5 kOhm
P-01RT-1M-0	NTC10k Pre (10k3)	2.5...8.5 kOhm

Technical data

Electrical data	Electrical connection	Spring loaded terminal 0.5...1.5 mm ²	
	Cable entry	Wire openings at the backside (for In-wall wiring) and top-/bottom side (for On-wall wiring)	
Functional data	Application	Air	
	Output signal passive temperature	Pt1000 NTC1k8 NTC10k (10k2) NTC10k Pre (10k3)	
	Measured values	Temperature	
	Measuring range temperature	0...50°C [32...122°F]	
Measuring data	Accuracy temperature passive	Passive sensors depending on used type Pt.. : Class B, ±0.3°C @ 0°C [±0.5°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]	
	Accuracy potentiometer	typical ±15%	
	Measuring current	Pt1000: <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]	
	Time constant τ (63%) in the room	Typical 360 s	
	Wall coupling factor	35 %	
	Materials	Housing	PC, white, RAL 9003
	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
Quality Standard		ISO 9001	
Ambient humidity		Max. 95% RH, non-condensing	
Ambient temperature		0...50°C [32...122°F]	

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 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

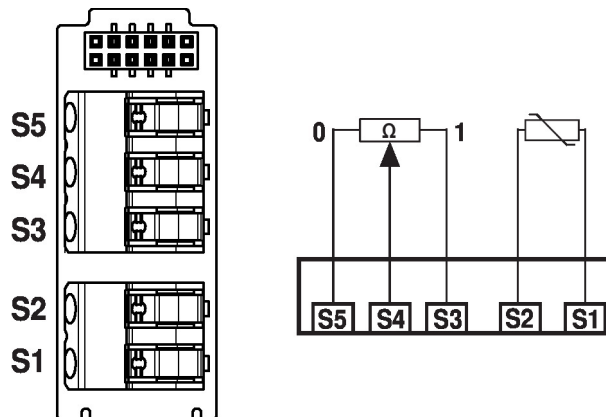
Due to self-heating with 2 wire passive sensors, the supply wire current affects the measurement accuracy. So the supply current should not be higher than the measuring current values specified in this data sheet.

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.

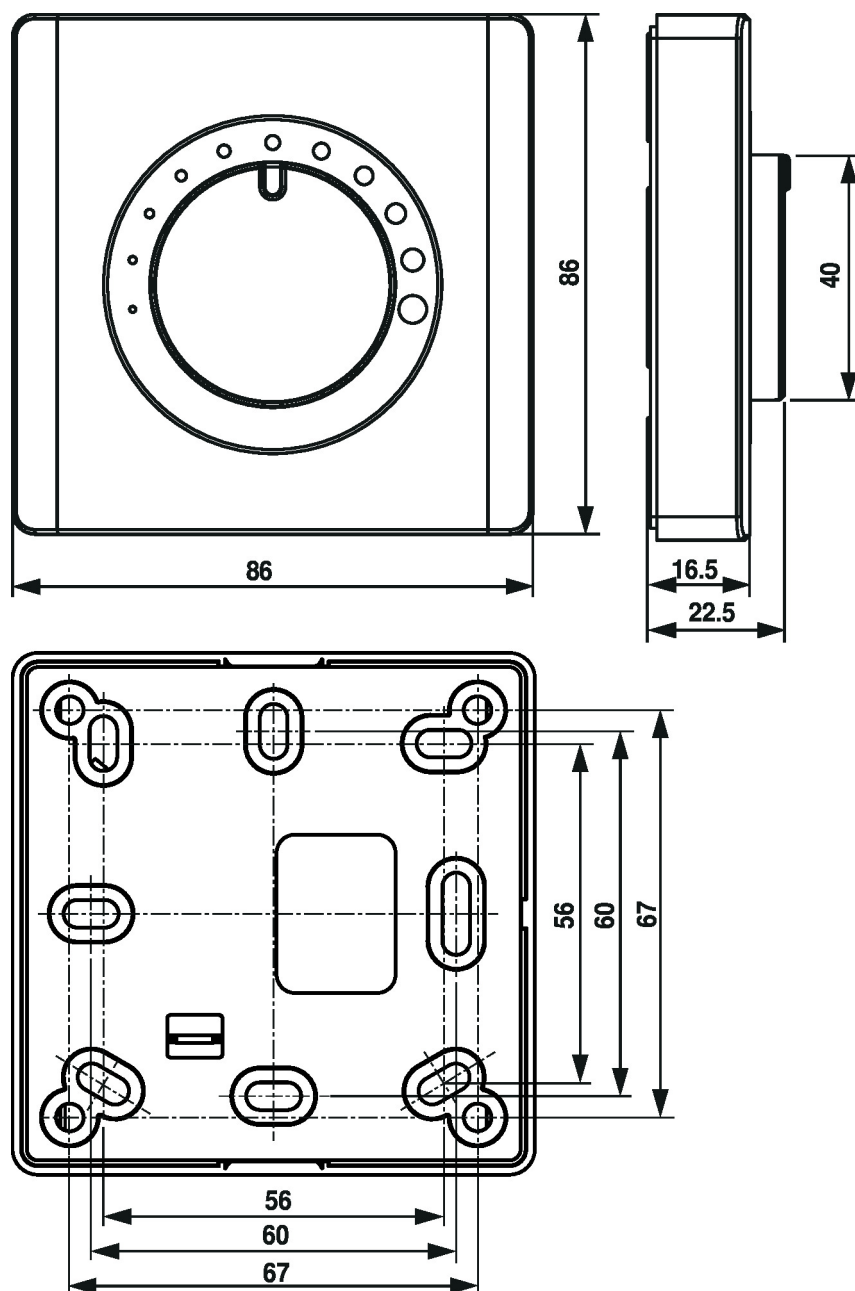
Parts included

Screws

Wiring diagram



Dimensions



Type	Weight
P-01RT-1B-0	0.06 kg
P-01RT-1F-0	0.06 kg
P-01RT-1L-0	0.06 kg
P-01RT-1M-0	0.06 kg

Further documentation

- Installation instructions
- Resistance characteristics