

RSTF

Room temperature sensor



Summary The RSTF temperature sensor is an analogue room air and radiating temperature sensor.

Application

- HVAC systems – temperature measuring and control rooms
- monitoring and recording of room temperature

Function The sensor uses a sensing element, the signal of which is available at the screw terminals. Typical sensor provided is Pt1000 for **domat** I/O modules, other sensor types see table below. Temperature range is -30 to +75 °C.

The sensors are intended for operating in a normal and chemically non-aggressive environment. They do not need any servicing or maintenance and can be mounted in any position.

The sensors are mounted with 4 screws on wall or on a flush-mounted junction box with 55 mm in diameter.

Technical data	Recommended measuring circuit	appr. 1 mA
	Measuring range	max. -30 ÷ +75 °C
	Protection class	IP65 according to EN 60529
	Terminals	screw terminals for wires 0,14 – 1,5 mm ²
	Cover	plastic ABS, enclosure colour - pure white (similar RAL 9010) semi-globe colour - black
	Insulation resistance	> 100 MOhm at 20°C, 500 VDC
	Humidity	< 95 % r.H.
	Dimensions	see below

Sensor types

Type	Ordering	Accuracy
Pt100	on request	DIN EN 60751 class B
Pt1000	default sensor type	DIN EN 60751 class B
Ni1000-6180 (Sauter)	on request	DIN EN 43760 class B
Ni1000-5000 (L&G)	on request	
NTC 1,8 kOhm	on request	DIN EN 44070

When designing sensor cabling, please note that the cable resistance will cause measuring error. For a 50 m cable and a Pt1000 sensor the error is as follows:

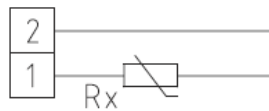
wires 0.50 mm² ... measuring error 0.90 K

wires 0.75 mm² ... measuring error 0.60 K

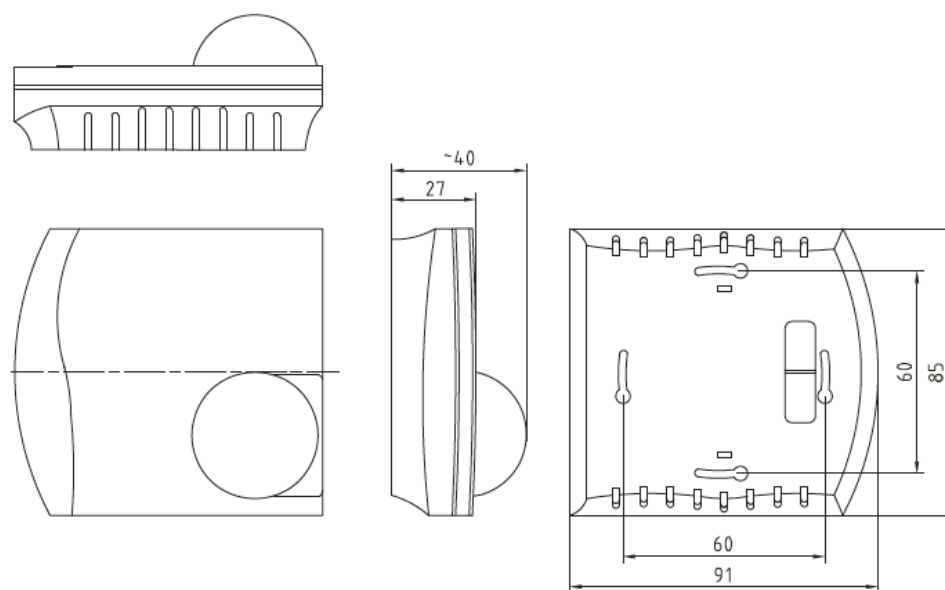
wires 1.00 mm² ... measuring error 0.44 K.

For other cable lengths, the errors are more or less linear.

Terminals



Dimensions



**Changes in
versions**

03/2015 — Modifying of sensor accuracy table, change in accuracy class and measuring error