

RGTF1

Duct flue gas temperature sensor



Summary

The RGTF1 temperature sensor is an analogue smoke flue temperature sensor.

Applications

- HVAC systems – smoke temperature measuring and control

Functions

The sensor uses a sensing element, the signal of which is available at the screw terminals. Default sensor element is Pt1000, other sensor types see table below. Temperature range is -35 to +600 °C.

The sensors are intended for operating in non-condensing environment. They do not need any servicing or maintenance. The stainless steel mounting flange is included.

Technical data

Recommended measuring circuit	appr. 1 mA
Measuring range	max. -35 ÷ +600 °C optional -100 °C...+750°C
Protection type	IP54 (according to EN 60529) optional IP65
Protection class	III (according to EN 60730)
Terminals	screw terminals for wires 0,14 – 2,5 mm ²
Insulation resistance	> 100 MOhm at 20°C, 500 V DC
Relative humidity	< 95 % r. H.
Connecting head	material aluminium, colour white aluminium (similar RAL 9006), ambient temperature -20...+100 °C, M 20 x 1.5
Protective tube	stainless steel, 1.4571, V4A, Ø = 11 mm
Process connection	by mounting flange, stainless steel (included in the scope of delivery)
Dimensions	see below

Sensor types

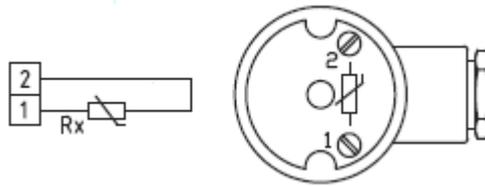
Type	Ordering	Accuracy
Pt100	on request	DIN EN 60751 class B
Pt1000	default sensor type	DIN EN 60751 class B

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.

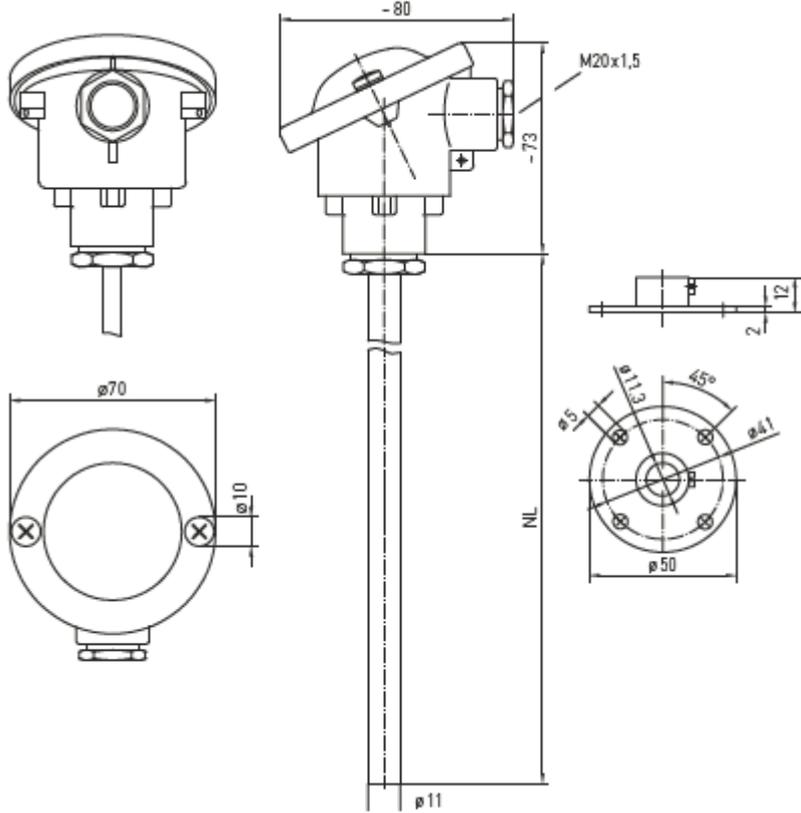
Stem lengths

200 mm	on request
250 mm	default stem length
300 mm	on request
500 mm	on request

Terminals



Dimensions



**Changes in
versions**

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