

ALTF02
ALTF2

Strap-on temperature sensors



Summary

The ALTF temperature sensors are analog strap-on temperature sensors for universal use.

Application

- HVAC systems – media temperature measuring

Function

The sensor uses a sensing element, the signal of which is available at the screw terminals. Default sensor type provided is Pt1000, other sensor types see table below. Temperature range is -30 to +110 °C.

The sensors are intended for operating in an outdoor or industry environment. They do not need any servicing or maintenance and can be mounted in any position.

The insert provides a slot for a steel band with an adjustable lock for mounting on pipes with diameter 13 ... 92mm, i. e. ½" ... 3".

Technical data

Recommended measuring circuit	appr. 1 mA
Measuring range	max. -30 ÷ +110 °C
Protection class	ALTF02 ...IP43 DIN EN 60529 ALTF2 ...IP65 DIN EN 60529
Sensor accuracy	see table below
Terminals	screw terminals for wires 0,14 – 1,5 mm ²
Cover	polyamide, 30% glass-globe-reinforced
Insulation resistance	> 100 MOhm at 20°C, 500 VDC

Operation humidity	Up to 95 % r. H.; non-precipitating air
Weight	< 0,1 kg
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:

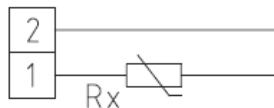
wires 0.50 mm² ... measuring error 0.90 K

wires 0.75 mm² ... measuring error 0.60 K

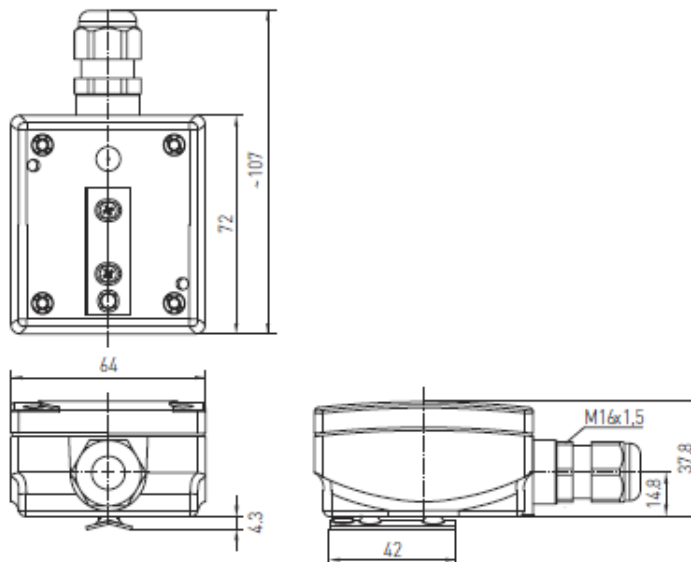
wires 1.00 mm² ... measuring error 0.44 K.

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

Terminals



Dimensions



Dimensions are in *mm*.

Changes in versions

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

05/2016 – New housing design ALTF02. Add information about operation humidity.