

**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. 1/4" ... 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 <sup>2</sup>
Cover	polyamide, 30% glass-globe-reinforced
Insulation resistance	> 100 MOhm at 20°C, 500 VDC

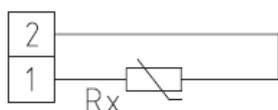
Operation humidity	Up to 95 % r. H.; non-precipitating air
Weight	< 0,1 kg
Dimensions	see below

### Sensor types

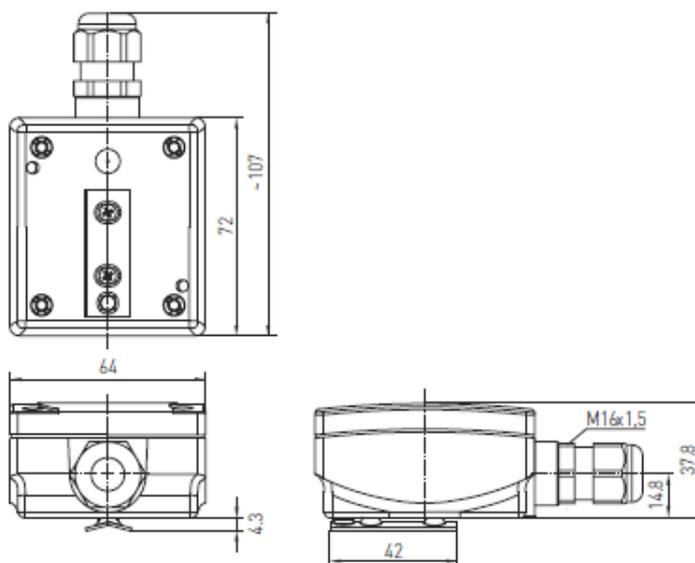
Type	Ordering	Accuracy
Pt100	on request	DIN EN 60751 class B
Pt1000	<b>default sensor type</b>	<b>DIN EN 60751 class B</b>
Ni1000-6180 (Sauter)	on request	DIN EN 43760 class B
Ni1000-5000 (L&G)	on request	
NTC 1,8 kOhm	on request	DIN EN 44070

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 mm<sup>2</sup> ... measuring error 0.90 K  
wires 0.75 mm<sup>2</sup> ... measuring error 0.60 K  
wires 1.00 mm<sup>2</sup> ... 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.