

OFTF

Surface temperature sensor



Summary Small surface temperature sensor in aluminium enclosure.

Application

- HVAC systems – used for temperature detection on flat or slightly convex surfaces e.g. at windows, for monitoring formation of condensate, or as heating surface feeler

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.

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 using appropriate adhesive or with mounting hole in sensor head.

Cable ends are protected by aluminium endings for installation into terminals. Standard cable length is 1,5 m, other lengths available on request. Optional with silicone cable SiHF up to 180°C.

Technical data

Recommended measuring current	about 1 mA
Measuring range	-30 to +105 °C
Protection degree	Standard IP65 (rolled), on request IP68 (sealed) (DIN EN 60529)
Connection	2 wires
Pocket	aluminium
Insulating resistance	> 100 MOhm at 20°C, 500 V DC
Mass	< 0,1 kg
Dimensions	8x8x40 mm, standard cable length 1,5 m

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:

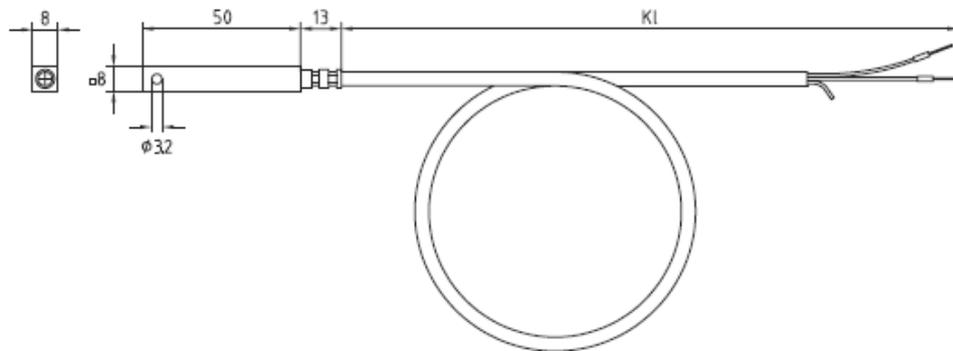
wires 0.50 mm² ... measuring error 0.90 K

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.

Dimensions



**Changes in
versions**

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