domat
control system

ALTF1 Strap-on temperature sensors

Summary **The ALTF1 temperature sensor is analog strap-on temperature sensor for universal use.**

Application
- **HVAC systems – media temperature measuring**

Function The sensor uses a two-wire sensing element, the signal of which is brought at the screw terminals. Default sensor type provided is Pt1000, other sensor types see table below. Temperature range is -35 to +105 °C for basic design (PVC). Optional silicone design temperature range is -35 to +180 °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 insert provides a slot for a steel band with an adjustable lock for mounting on pipes with diameter 13...92mm, i. e. ¼"...3", strap length 300 mm.

Technical data

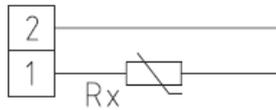|	
Recommended measuring circuit	appr. 1 mA
Measuring range	max. -30 ÷ +105 (180) °C
Protection type	IP65 (according to EN 60529), optional IP68
Sensor accuracy	see table below
Connecting cable	PVC, 1.5 m, LiYY, 2x0.25 mm² or
	silicone SiHF 1.5 m, 2x0.25 mm²
Insulation resistance	> 100 MOhm at 20°C, 500 V DC
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:
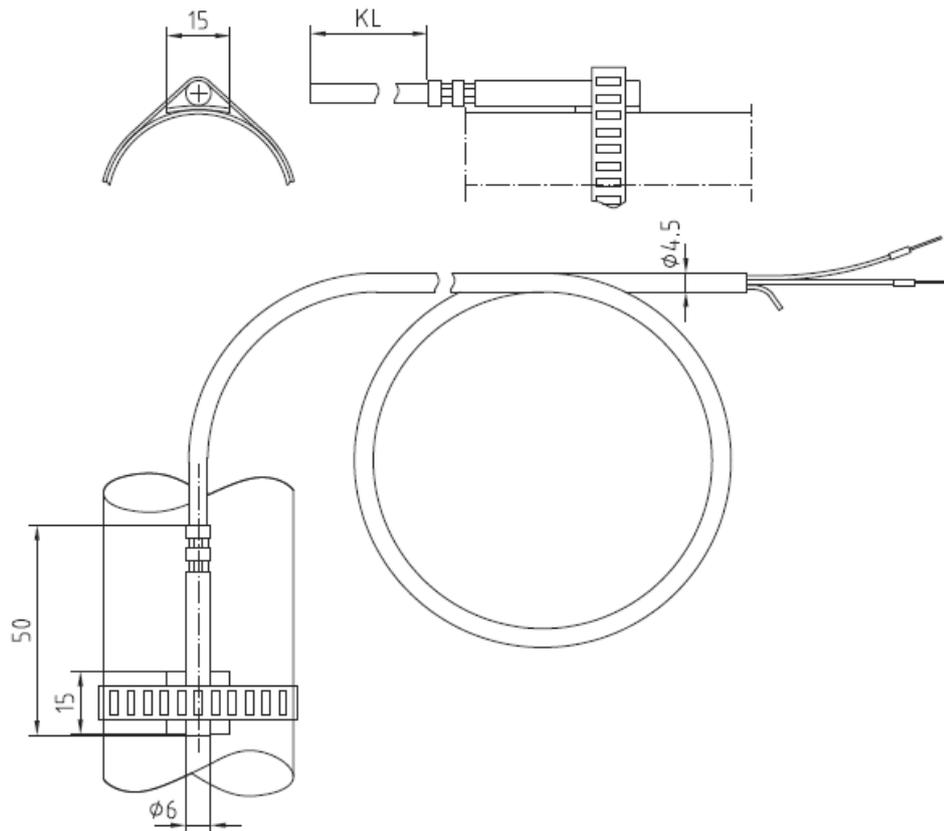wires 0.50 mm2 ... measuring error 0.90 K
wires 0.75 mm2 ... measuring error 0.60 K
wires 1.00 mm2 ... measuring error 0.44 K.
For other cable lengths, the errors are more or less linear.

Terminals

Dimensions

KL = cable length; default 1.5 m

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