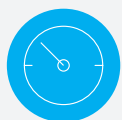


PT100

Temperature Probe

PT100 temperature probe is designed for measurement of air, surface ground, soil and water temperature.



Highly stable measurement



CE certified



Meets EN61000-6-4 and EN61000-6-2 EMC requirements



Connector - optional



Designed to stand harsh weather conditions

PT100 high quality probe family uses a highly stable and accurate platinum resistance sensing element. Waterproof construction and used materials ensure long time reliability in extreme environmental conditions.

The probe meets EN61000-6-4 and EN61000-6-2 EMC requirements. The high noise immunity is assured by 4-wire screened cable, with standard length 3 m, 5 m, or 10 m long for convenient installation. Accuracy class is F0.1 IEC 60751.

Measurement

Measurement range	-65 °C to +75 °C
Temperature sensor	PT100 RTD Class F0.1 IEC 60751 Platinum resistance element
Accuracy	$\pm(0.1 + 0.00167 \times \text{temperature}) \text{ } ^\circ\text{C}$
Measuring element	100 Ω , $\alpha = 0.00385$
Long-term stability	< 0.1 °C / year
Resolution	0.01 °C (for AMS 111 data logger) depends on data logger
Measurement period	depends on data logger
Response time	63 % to < 20 s
Upgrade to ISO 17025 accredited calibration	optional

Electrical

Recommended current	1 mA max.
----------------------------	-----------

Mechanical

Measuring tip	length 15 mm, diameter 4 mm
Probe housing	length 100 mm, diameter 10 mm
Cable	standard lengths 3 m, 5 m, 10 m (different lengths available on request)
Connector	optional

Environmental

Operating temperature range	-65 °C to +75 °C
Storage temperature range	-65 °C to +75 °C
Operating humidity range	0 to 100 %
Protection rating	IP 68

Factory calibration

Calibration point [°C]	Typical uncertainty U [°C]
-40	0.06
-30	0.06
-20	0.06
-10	0.06
0	0.06
10	0.06
20	0.06
30	0.06
40	0.06
50	0.06
60	0.06