



RELIABLE & SENSITIVE
ROBUST CONSTRUCTION
VARIOUS CONFIGURATIONS AVAILABLE

Temperature sensor series TH provides reliable means to monitor temperature in rock, concrete, soil, or ground fill

Description

Temperature sensors are available in three different models: **TH-T**, **TH-PT100**, and **TH-TC**.

Model **TH-T** uses a 3 k Ω chip thermistor. The thermistor is encapsulated and sealed into a stainless steel or PVC cylindrical housing. Two lead wires are connected to the thermistor for readout. The **TH-T** incorporates the standard thermistor used in most vibrating wire instruments.

Model **TH-PT100** consists of a platinum resistor highly sensible to temperature. Platinum is well suited because of its stability at high temperature. A four- or three-wire bridge mounting gives a good measurement resolution with a portable bridge measurement device or a data acquisition system. The sensor is enclosed inside a stainless steel housing, which allows grouting while offering resistance to strain.

Model **TH-TC** is a thermocouple consisting of a twin solid thermocouple wire AWG 24, covered by a 0.38-mm thick PVC jacket and encapsulated in a PVC protective housing. It is usually connected with an extension wire, which will be connected to a readout unit. The thermocouple and extension wires are copper-constantan alloy (type T).

Key Features

- Available in various configurations
- Reliable & sensitive
- Rugged

Applications

- Dams and bridges
- Buildings and tunnel linings
- Influence of instrument temperature

Specifications

MODEL	TH-T	TH-PT100 (Class A)	TH-TC TYPE T
Range*	-50 to +150°C	-200 to 600°C	-60 to +400°C
Accuracy	±0.5% F.S.	±0.15°C at 0°C	±0.1% F.S.
Resolution	0.1°C	Depends on readout	0.1°C
Sensor	3 kΩ thermistor	100 Ω resistor	Thermocouple
Housing	PVC or stainless steel	Stainless steel	PVC
	16 mm OD	16 mm OD	16 mm OD
	51 mm long	51 mm long	51 mm long
Cable	IRC-41A or IRC-295	IRC-41A	Duplex AWG 20 extension wire,
Sensibility	—	<0.1% F.S.	—

* Temperature range of cable must be considered (e.g. -20 to +80°C for the IRC)

Ordering Information

Please specify:

- Model of temperature sensor
- Cable length and type

Optional Accessories

- Armored cable
- Readout instruments