Maturix Thermocouple

Probe for Maturix[®] Temperature and Strength Monitoring



Overview

The type K thermocouple sensor measures temperature at the tip of the cable and is intended for Maturix[®] Temperature and Strength Monitoring. Install the thermocouple and connect it to the transmitter. The temperature data will be sent continuously.

The cable consists of two durable conductors. It is insulated with PTFE (Teflon), which has excellent abrasion, flame, and humidity resistance. The cable is designed to be both strong and flexible, suitable for multiple purposes.

On our ready-to-use thermocouples, the connector is moulded directly to the pins using fibre-reinforced nylon, ensuring precise fit and a durable connection.

Type K thermocouples are simple to use, versatile, widely available, and cost-effective temperature sensors ideal for concrete monitoring.

Reusability is important - the thermocouples can be reassembled by cutting the cable, removing the jacket, and reconnecting the two conductors at the tip.

Features

- Measure temperature at any position with type K thermocouples
- Industry-standard temperature sensor
- Multiple ready-to-use lengths available
- High resistance and durability
- 5x higher pull force than traditional connectors

Benefits

- Ideal for concrete monitoring
- Flexible and versatile use
- Cost-efficient temperature & strength monitoring
- Flexible positioning
- Color-coded by length

Maturix[®] Temperature and Strength Monitoring

Maturix combines durable hardware, smart wireless technology and user-friendly software into a powerful concrete monitoring tool. The system provides in-depth insights into the curing status and shows real-time temperature, maturity and strength data.



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Information in this datasheet is based on specifications believed correct at the time of publication. The right is reserved for making changes as design and general improvements are introduced.

Specifications

Temperature measurements

Range	-60 to 125 °C (-76 to 257 °F) ¹
Tolerance	±1.5 °C (±2.7 °F)
Thermocouple class	Class 1

Use and storage

Temperature	-60 to 125 °C (-76 to 257 °F) ¹
Ideal storage conditions	Indoor, 20 to 30 °C (68 to 86 °F)

Mechanical specifications

Cable length	Ready-to-use cables: 1, 3, 5, 10 meters Self-assembly roll: 100 meter
Cable shape	Flat pair
Cable thickness	2.5 x 1.5 mm (0.1 x 0.06 in)
Connector thickness	7/0.12, 0.2 mm ²
Connector dimensions (L x W x H)	32 x 17 x 8 mm (1.26 x 0.67 x 0.31 in)
Connector type	Miniature, type K, male, flat pins
Materials	Cable, conductors: Ni-Cr / Ni-Al Cable, jacket: Teflon/PTFE (blue) Cable, tip protector: Polyolefin (black) Connector, ready-to-use: Fiber-reinforced nylon

 $^{\rm 1}{\rm Can}$ be extended to 250 °C without the tip protector. The tip must not be in contact with conducting materials like metals.

Models

Ready-to-use sensors			
Part no.			
21001-010	Thermocouple, type K	1m	10pcs.
21003-010	Thermocouple, type K	3m	10pcs.
21005-005	Thermocouple, type K	5m	5pcs.
21010-001	Thermocouple, type K	10m	1pcs.
Self-assembly parts			
Part no.			
31100-001	Thermocouple, type K, 100m wire (Cable roll for self-assembly)		
32005-010	Thermocouple connector, type K, custom connector (Miniature type K male connector)		
HS code	8517 6990 00		





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