

T1E0B10A

Temperature Measurement Module



Properties

- Module integrated in the cable
- For thermocouples type J or K
- Low linearity error

Application

- General test and measurement
- Fatigue
- Vehicle crash

Measurement principles

- For thermocouples

Options

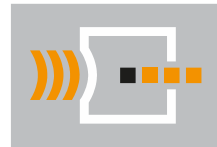
- ID-Module integrated in measurement module

Technical description

Temperature measurement module completely constructed using semiconductor technology. Optimized for direct connection to the measuring systems used in the crash area. The module provides an output signal that is directly proportional to the temperature. The necessary cold junction compensation for thermocouples is integrated in the measurement module. Available for type J or type K thermocouples. There is very fast responsiveness depending on the thermocouple used. Ideal for use with self-adhesive surface thermocouples type T1E0C10A or other sheathed thermocouples.

Dimensions

Module: W x H x D: 52 x 18 x 18 mm



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Technical specification

	Unit	Value	Comment
Measuring range	°C	-25 to +400	Depending on the thermocouple
Sensitivity ¹⁾	mV/°C	5	
Thermocouple type	–	J or K	Specify when ordering
Zero signal ¹⁾	mV	230 ±15	At 23 °C
Amplitude non-linearity ²⁾	%	≤ 0.6	
Current consumption	mA	< 2.0	
Supply voltage	V	6–15	
Insulation resistance	MΩ	> 100	
Temperature range	°C	0...+50	Temperature of the module
Weight (approximate)	g	5.0	

All values measured at 10 V sensor supply voltage and at 23 °C.

¹⁾ Typical value

²⁾ At nominal load

Standard calibration range: 0 °C to 100 °C in 10 °C steps.

The thermocouple is not supplied.