

T1E0A10A

Temperature Sensor

Properties

- Small housing
- Measurement range -20 up to +100 °C
- Low linearity error

Application

- General test and measurement
- Fatigue
- Vehicle crash

Measurement principles

- Semiconductor

Options

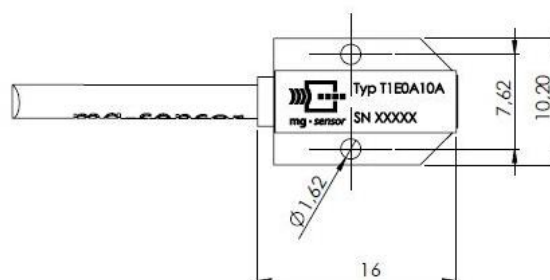
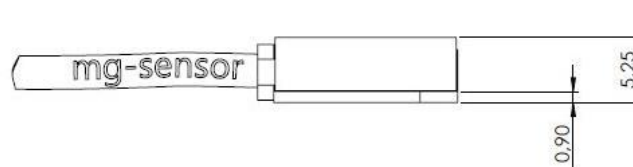
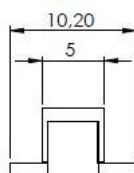
- ID-Module integrated in sensor



Technical description

Temperature measurement module completely constructed using semiconductor technology. Optimized for direct connection to the measuring systems used in the crash area. The sensor provides an output signal that is directly proportional to the temperature. The sensor element is located very close to the bottom side of the sensor base. Thanks to the very good thermal conductivity of the aluminum, the sensor element temperature adjusts itself almost ideally to the surface of the measuring point. The sensor is intended for simple measurements where there are no steep temperature gradients.

Dimensions



Technical Data Sheet



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Technical specification

	Unit	Value	Comment
Measuring range	°C	-20 bis +100	
Sensitivity ¹⁾	mV/°C	10	
Output signal ^{1), 2)}	V	1.0	
Zero signal ¹⁾	mV	230 ±15	At 23°C
Amplitude non-linearity ³⁾	%	≤ 0.2	
Current consumption	mA	0.2	
Supply voltage	V	5–15	
Insulation resistance	MΩ	> 100	
Temperature range	°C	-40...+125	
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

³⁾ Relative nominal range