

# TG 6 – TEMPERATURE SENSORS WITH A CABLE AND METAL CASE

K20.05en

## DESCRIPTION AND APPLICATION

These temperature sensors are designed to measure the surface temperature of solid substances. The maximum temperature range of use of the sensors is  $-30\text{ }^{\circ}\text{C}$  to  $200\text{ }^{\circ}\text{C}$  and these limits must not be exceeded even for a brief period. The structure of the sensors, which includes an M6 thread, enable the measurement of solid substances right below the surface. The sensors are designed for use in a chemically non-aggressive environment. The method of use must be chosen with regard to the temperature and chemical resistance of the case and lead-in cable.

## ACCESSORIES

- connectors

## DECLARATION, CERTIFICATION, CALIBRATION

Manufacturer provides **EU Declaration of Conformity**.

**Calibration** – The final metrological inspection – comparison with standards or working instruments – is carried out for all the products. Continuity of the standards and working measuring instruments is ensured within the meaning of the Section 5 of Act no.505/1990 on metrology. The manufacturer offers a possibility to supply the sensors calibrated in SENSIT s.r.o.'s laboratory (according to requirements of the EN ISO/IEC 17025 standard) or in an Accredited laboratory.

## SPECIFICATIONS

Sensor type	TG 6
Measuring range	$-30\text{ }^{\circ}\text{C}$ to $200\text{ }^{\circ}\text{C}$ (can be limited by the type of cable, determine in documentation)
Type of sensing element	Pt, Ni, NTC, TC K, TC J, TC T
Ingress protection	IP 67 in accordance with EN 60529, as amended
Thread/OK	M 6/OK 12
Case material	brass
Length of thread	9 mm
Lead-in cable	shielded silicone $2 \times 0.22\text{ mm}^2$ shielded silicone $4 \times 0.15\text{ mm}^2$
Wire resistance	$0.16\ \Omega$ for 1 m of cable for 2-wire connection
Time response	$\tau_{0.5} < 4\text{ s}$ (in flowing water at $0.2\text{ m}\cdot\text{s}^{-1}$ )
Maximum allowable cable tension	1 kg

Note: Certain technical specifications of thermocouple sensors (lead wires, IP rating, etc.) may differ with different types.

## MODIFICATION AND CUSTOMIZATION

- variable thread design, or size
- accuracy class A (with the exception of sensors Ni 10000/5000, Ni 10000/6180, T1 = Ni 2226, thermistor NTC 20 k $\Omega$ )
- possibility of three or four-wire connection



## WIRING DIAGRAM

