



# TG 9 – TEMPERATURE SENSORS WITH A CABLE AND METAL CASE

## DESCRIPTION AND APPLICATION

These temperature sensors are designed to measure the temperature of gaseous and liquid substances. The maximum temperature range of use of the sensors is  $-50$  to  $200$  °C. The shape of the case with tapering to 3.6 mm in diameter ensures fast response to changes in temperature. The lead-in cable has silicone insulation and shielding. The sensors are designed for universal use, 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, CERTIFICATES, 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 9
Measuring range	$-50$ to $200$ °C (can be limited by the sensing element, determine in documentation)
Type of sensing element	Pt, Ni (except for T1 = Ni 2226 and Ni 10000), NTC, TC K, TC J, TC T
Ingress protection	IP 67 in accordance with EN 60529, as amended
Case material	stainless steel DIN 1.4301
Diameter of the case	5 mm
Diameter of case tip	3.6 mm
Length of case L	60 to 200 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 $0.2 \text{ m}\cdot\text{s}^{-1}$ )

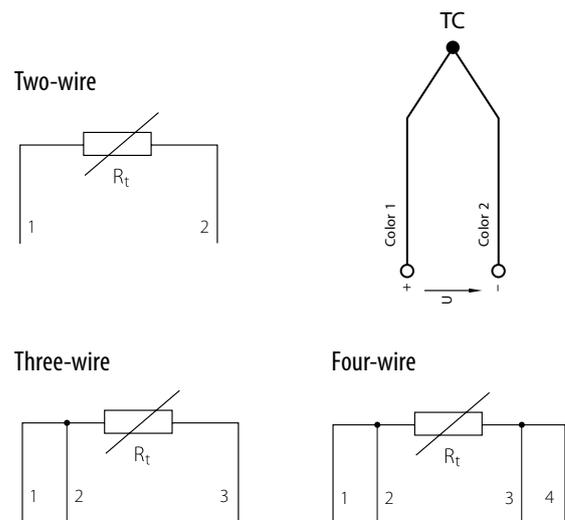
Note: Certain technical specifications of thermocouple sensors (lead wires, IP rating, etc.) may differ with different types.

## MODIFICATION AND CUSTOMIZATION

- possibility to encase two sensing elements
- variable stem design in the area – L length
- 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



## DIMENSIONAL DRAFT

