

TG1 AND TG2 – TEMPERATURE SENSORS WITH A CABLE AND METAL CASE

K14.05en

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 lead-in cable is a type with silicone insulation and shielding. The sensors are primarily designed for measuring the temperature in pipelines. Their structure enables quicker response to changes in temperature and can be used as a pressure device as defined in Government Regulation No. 26/2003 Coll., as amended. 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	TG1	TG2
Measuring range	-50 to 200 °C (can be limited by the type of cable, determine in documentation)	
Type of sensing element	all types (Pt 100, Pt 1000, Ni 1000, Ni 10000, Ni 2226=Ti6, NTC, PTC, KTY, TSic, DALLAS, TC K, TC J, TC T and so on)	
Ingress protection	IP 67 in accordance with EN 60529, as amended	
Thread / OK	M 10 x 1.5 / OK 12	
Case material	brass	stainless steel DIN 1.4301
Case diameter	6 mm	
Length of case L	10 to 60 mm (in 10 mm)	10 to 100 mm (in 10 mm)
Length of thread L1	8 mm	10 mm
Lead-in cable	shielded silicone 2 x 0.22 mm ² shielded silicone 4 x 0.15 mm ²	
Wire resistance	0.16 Ω for 1 m of cable for 2-wire connection	
Time response	$\tau_{0.5} < 7$ s	$\tau_{0.5} < 9$ s (in flowing water at 0.4 m.s ⁻¹)

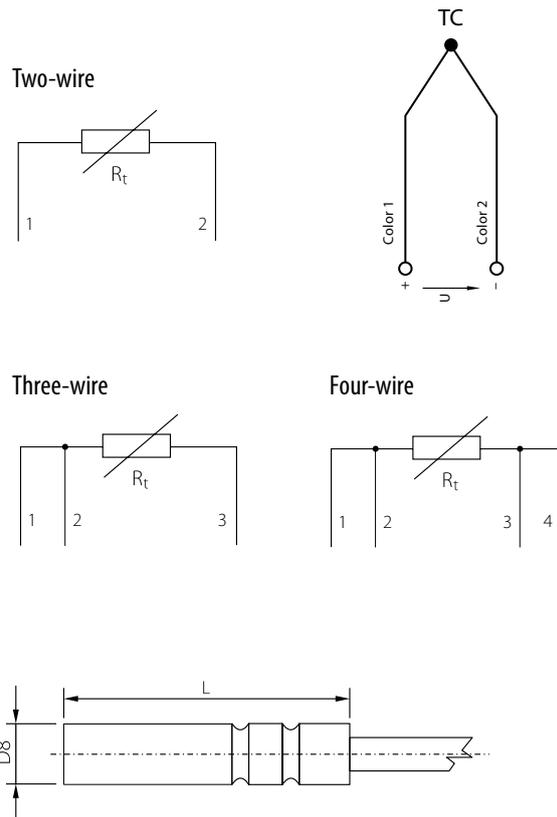
Note: Certain technical specifications of thermocouple sensors (lead wires, IP rating, etc.) may differ with different types.

MODIFICATION AND CUSTOMIZATION

- possibility to encase two sensing elements
- variable stem design in the area – L length, case material
- accuracy class A (with the exception of sensors Ni 10000/5000, Ni 10000/6180, T1 = Ni 2226, thermistor NTC 20 kΩ)
- possibility of three or four-wire connection
- possibility of encasing non-standard temperature sensors (DALLAS, TSic, KTY, SMT, etc.)



WIRING DIAGRAM



TEMPERATURE SENSORS WITH A CABLE