

TG 70 – TEMPERATURE SENSOR WITH A CABLE AND METAL CASE

K35.02en

DESCRIPTION AND APPLICATION

The temperature sensors TG 70 are designed to measure the surface temperature of solid substances. The construction of the sensor enables fixed connection to the measured surface by using screw placed in to the hole in the sensor case. The structure of the sensors also enables fast response to the changes in temperature in particular when silicone grease is applied between the measured surface and the sensor. Maximum temperature range of sensor use is -50 to 350 °C (400 °C for a short time). The range for each design variant is reduced with a type of the temperature sensing element and the supply cable. The temperature sensors meet ingress protection from IP 50 to IP 67 according to the EN 60529, as amended, depending on the lead-in cable variant. The temperature sensors are intended for operation in chemically non-aggressive environment. By using temperature sensor is recommended to ensure stripping sensor from the influence of ambient temperature and thus reduce the error method due to the impact of differences between the measured temperature ambient temperature.

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

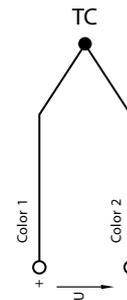
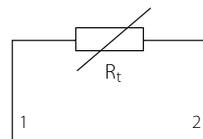
Sensor type	TG 70	TG 70A
Type of sensing element	Pt, Ni, NTC, TC K, TC J, TC T	
Case dimension	outer Ø 14 mm inner Ø 5.2 mm	outer Ø 16 mm inner Ø 5.2 mm
Case material	stainless steel DIN 1.4301	
Supply cable variations / Temperature range (can be limited by type of sensing element – specified in manual)	PVC shielded -30 to 80 °C PVC unshielded -40 to 105 °C Silicone shielded -50 to 200 °C Teflon shielded -50 to 250 °C With fibreglass 0 to 400 °C (with metal braiding)	
Ingress protection	from IP 50 to IP 67 in accordance with EN 60529, as amended - according to the type of cable	
Insulation resistance (between case and sensor)	>200 MΩ at 500 VDC, 25 ± 3°C	
Maximum permissible static pull on the supply cable	1 kg	

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

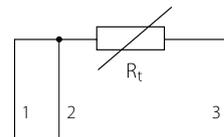


WIRING DIAGRAM

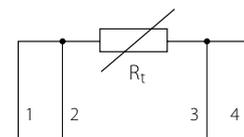
Two-wire



Three-wire

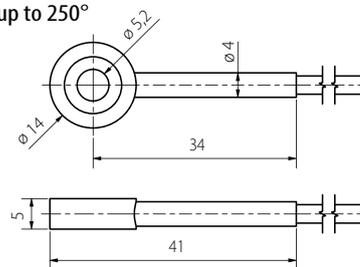


Four-wire

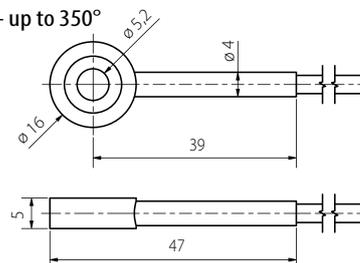


DIMENSIONAL DRAFT

TG 70 - up to 250°



TG 70A - up to 350°



MODIFICATION AND CUSTOMIZATION

- possibility to encase two sensing elements
- accuracy class A (with the exception of sensors Ni10000/5000, Ni 10000/6180, T1 = Ni 2226, thermistor NTC 20 k Ω)
- possibility of encasing non-standard temperature sensors (DALLAS, TSIC, KTY, SMT, etc.)

