SENSIT

TR 141 and TR 141B, TM 141 and TM 14B
TEMPERATURE SENSORS WITH A CABLE AND METAL CASE

K22.05en

DESCRIPTION AND APPLICATION

These temperature sensors are designed for measuring the surface temperature of solid substances with a flat and smooth surface. The maximum temperature range of use is 0 °C to 300 °C, 350 °C short-term. Due to used type of lead-in cable with glass fibre insulation and metal braiding, the sensors are not resistant against the penetration of moisture into the case and are designed for use in a dry environment. 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

- thermal conductive paste up to 200 °C, 5g
- 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	TR 141 and TR 141B	TM 141B and TM 141B
Measuring range	0 to 300 °C, variant TR 141 and TM 141 and TR 141B and TM 141B up to 350 °C (short-term)	
Type of sensing element	Pt 100, Pt 500, Pt 1000, TC K, TC J	
Ingress protection	IP 50 in accordance with EN 60529	
Case material	aluminium alloy stainless steel DIN 1.4301	
Length of case	L 40 mm	
End sleeves	H 0.25 / 10 mm	
Lead-in cable	with glass fibre and metal braiding 2 x 0.35 mm2 with glass fibre and metal braiding 4 x 0.35 mm2	with glass fibre and metal braiding 2 x 0.22 mm2 with glass fibre and metal braiding 4 x 0.22 mm2
Wire resistance	0.11 Ω for 1 m of cable for 2-wire connection	
Maximum allowable cable tension	1 kg	
Recommendation	use thermal conductive paste for installation	

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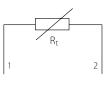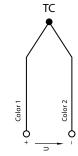
MODIFICATION AND CUSTOMIZATION

- possibility of encasing two sensing elements
- variable design of sensor case dimensions and materials
- accuracy class A (with the exception of sensors Ni 10000/5000, Ni 10000/6180, T1 = Ni 2226, thermistor NTC 20 kΩ)
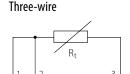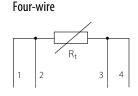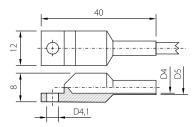- possibility of three or four-wire connection
- possibility of encasing non-standard temperature sensors (DALLAS, TSiC, KTY, SMT, etc.)

WIRING DIAGRAM

Two-wire

TC

DIMENSIONAL DRAFT

SENSIT s.r.o., Skolni 2610, 756 61 Roznov pod Radhostem, Czech Republic
T +420 571 625 571 F +420 571 625 572 E obchod@sensit.cz

K22.05en
09/2019