

## TEMPERATURE SENSORS WITH A CABLE AND METAL CASE


**DESCRIPTION AND APPLICATION**

These resistance sensors are designed to measure the temperature of gaseous and liquid substances. The maximum temperature range of use of the sensors is  $-50\text{ }^{\circ}\text{C}$  to  $200\text{ }^{\circ}\text{C}$ . The used type of 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.



TEMPERATURE SENSORS WITH A CABLE

**SPECIFICATIONS**

Sensor type	TR 125
Measuring range	$-50\text{ }^{\circ}\text{C}$ to $200\text{ }^{\circ}\text{C}$ (can be limited by the sensing element, determine in documentation)
Type of sensing element	Pt, Ni, NTC, TCx
Ingress protection	IP 67 in accordance with EN 60529
Case material	stainless steel DIN 1.4301
Diameter of the case	5 mm
Length of case L	30 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	$\tau_{0.5} < 7\text{ s}$ (in flowing water at $0.4\text{ m}\cdot\text{s}^{-1}$ )

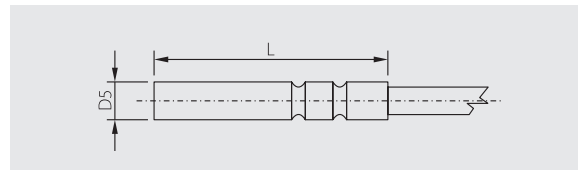
**SENSOR INSTALLATION AND SERVICING**

1. Installation of the sensor in the measured place.
2. Connection of the wires of the lead-in cable according to the wiring diagram.  
The shielding of the lead-in cable is not connected to the outer case of the sensor or temperature sensor.

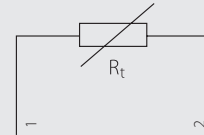
After installing and connecting to the electrical measuring equipment, the sensor is ready for use. The sensor does not require any special servicing or maintenance. The work position is adjustable.

**MODIFICATION AND CUSTOMISATION**

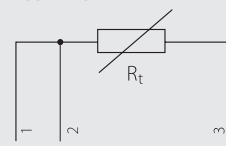
- possibility to encase two sensing elements
- variable stem design in the area – L length, case material
- accuracy class A (with the exception of sensors Ni 10000/5000, Ni 10000/6180, T1 = Ni 2226, thermistor NTC 20 k $\Omega$ )
- possibility of three or four-wire connection

**DIMENSIONAL DRAFT**

**WIRING DIAGRAM**

Two-wire



Three-wire



Four-wire

