

# TR 091.5 – TEMPERATURE SENSORS WITH A CABLE AND METAL CASE

K34.03en

## DESCRIPTION AND APPLICATION

These temperature sensors are designed for contact measurement of the temperature of gaseous and liquid or solid substances. The maximum temperature range -50 to 200 °C. The 1.5 mm diameter of the case ensures fast response to changes in temperature. Various cable materials with a PVC, silicone or teflon insulation can be used as lead-in cables.

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.

The sensors are also designed for use in a chemically non-aggressive environment.

## 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	TR 091.5
Measuring range	-50 to 200 °C
Type of sensing element	Pt 100, Pt 1000, TC K, TC J
Connection of sensing element	2wire (in part of case with ø 1,5 mm)
Connection of extension cables	2wire, 3wire, 4wire
Ingress protection	IP 65 in accordance with EN 60 529, as amended
Case material	stainless steel DIN 1.4301
Diameter of the case	1.5 mm
Length of case L	20 to 80 mm
Wires inside measuring part	2 x AWG 32
Lead-in cable	shielded silicone 2 x 0.34 mm <sup>2</sup> or 4 x 0.22 mm <sup>2</sup> shielded teflon 2 x 0.14 mm <sup>2</sup> or 4 x 0.14 mm <sup>2</sup>
Wire resistance	0.16 Ω for 1 m of cable for 2-wire connection (silicone cable) 0.254 Ω for 1 m of cable for 2-wire connection (teflon cable)
Response time	$\tau_{0,5} = 1.8 \text{ s}$ $\tau_{0,9} = 5.5 \text{ s}$

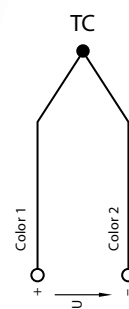
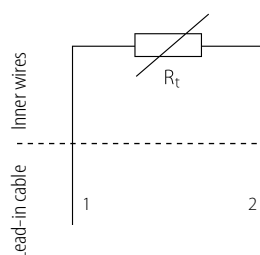
Note: Certain technical specifications of thermocouple sensors (lead wires, IP rating, etc.) may differ with different types.



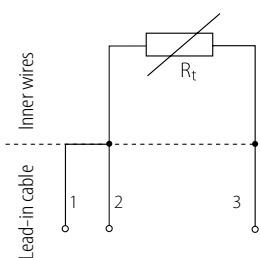
TEMPERATURE SENSORS WITH A CABLE

## WIRING DIAGRAM

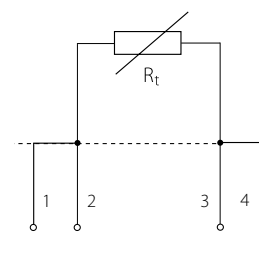
### Two-wire



### Three-wire



### Four-wire



## DIMENSIONAL DRAFT

