

# TR 080A – TEMPERATURE SENSORS WITH A CABLE AND METAL CASE

K16.05en

## DESCRIPTION AND APPLICATION

These resistance temperature sensors are designed to measure the temperature of gaseous, liquid or solid substances. The maximum temperature range of use of the sensors is -30 to 180 °C. The lead-in cable is a type with silicone insulation and shielding. The sensors are primarily designed for measuring the temperature in airconditioning ducts. The 4 mm case diameter enables quicker response to changes in temperature. 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

- 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 080A
Measuring range	-30 to 180 °C (can be limited by the type of cable, determine in documentation)
Type of sensing element	Ni 1000, Pt 100, Pt 500, Pt 1000, NTC
Ingress protection	IP 65 in accordance with EN 60529, as amended
Thread/OK	according to customer
Case material	stainless steel DIN 1.4301
Diameter of case	4 mm
Length of case L	30 to 200 mm
Lead-in cable	shielded silicone 2 x 0.22 mm <sup>2</sup> shielded silicone 4 x 0.15 mm <sup>2</sup>
Wire resistance	0.16 Ω for 1 m of cable for 2-wire connection
Time response	$\tau_{0.5} < 5$ s in flowing water at 0.4 m.s <sup>-1</sup>

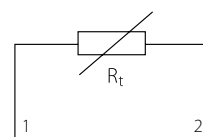
## MODIFICATION AND CUSTOMIZATION

- 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

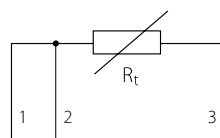


## WIRING DIAGRAM

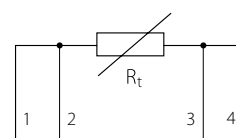
Two-wire



Three-wire



Four-wire



## DIMENSIONAL DRAFT

