# TR 024 AND TR 024A – TEMPERATURE SENSORS WITH A CABLE AND METAL CASE

K02.05en



## 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 of use is -50 to 260 °C for the TR 024 model with a teflon cable, and -50 to 200 °C for the TR 024A model with a silicone cable. The diameter of the case ensures fast response to changes in temperature. The used type of 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

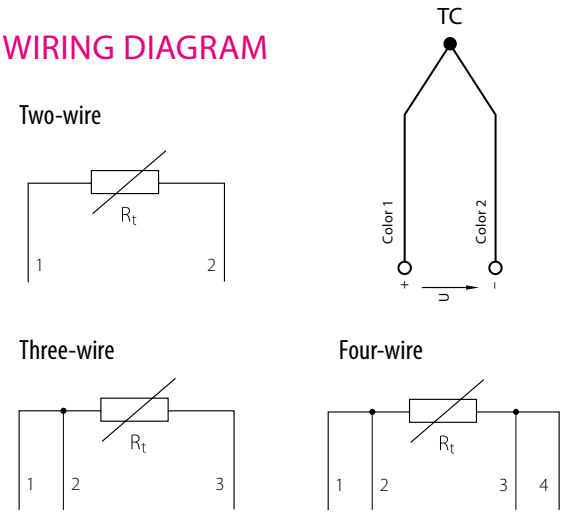
- connectors

## 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.

## WIRING DIAGRAM

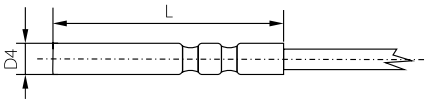



## SPECIFICATIONS

| | | |
|---|---|---|
| Sensor type | TR 024 | TR 024A |
| Measuring range | -50 to 250 °C | -50 to 200 °C |
| Type of sensing element | Pt, Ni, TC K, TC J, TC T | |
| Ingress protection | IP 64 in accordance with EN 60529, as amended | IP 67 in accordance with EN 60529, as amended |
| Case material | stainless steel DIN 1.4404 | |
| Diameter of case | 4 mm | |
| Length of case L | 20 to 60 mm (in 10 mm) | |
| Lead-in cable | teflon shield. 2 x 0.14 mm$^2$<br>teflon shield. 4 x 0.14 mm$^2$ | silicone shield 2 x 0.14 mm$^2$ |
| Wire resistance | 0.254 Ω for 1 m of cable for 2-wire connection | 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$^{-1}$) | |

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

## DIMENSIONAL DRAFT




## MODIFICATION AND CUSTOMIZATION

- 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 kΩ)
- possibility of three or four-wire connection for TR 024 variant

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