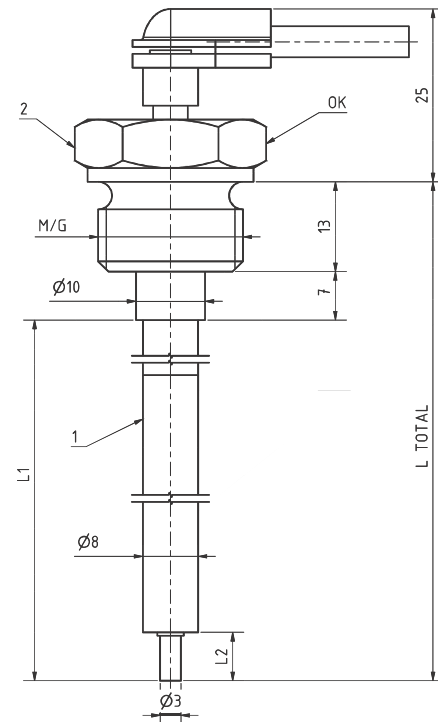


TR 085JA

Temperature sensor

Z084.1a



DESCRIPTION AND APPLICATION ↓

The **TR 085JA** resistance temperature sensors are specially designed for temperature measurement of rubber mixes. The temperature range for use of the sensors is -50 to 220 °C and these limits must not be exceeded even for a brief period. The sensors can be used for all control systems compatible with the Pt 100/3850 or Pt 1000/3850 temperature sensor. The sensors meet the ingress protection class of IP 65 according to EN 60529, as amended, and they are designed for general use. The design of the sensor, in which the temperature sensor is connected with the end of the measuring case, ensures very fast response of the sensor on temperature changes, even when the sensor is just minimally submerged in the measured rubber mix. The sensors are designed to be operated in a chemically non-aggressive environment, the use must be chosen with regard to the temperature and chemical resistance of the case and the supply cable.

Recommended use and position of the sensors:

- the working position is given by the position of the assembly fitting and by the sensor length
- it is necessary to ensure that the entire measuring section of the case with the length of 7 mm is in contact with the medium to be measured

SPECIFICATIONS ↓

Sensor type	TR 085JA
Type of sensing element	Pt 100, Pt 1000
Accuracy class *	B according to EN 60751 $\pm (0.3 + 0.005 t)$ in °C
Measuring range	-50 to 220 °C
Ingress protection	IP 65 according to EN 60529, as amended
Time response	$\tau_{0,5} < 2$ s (in running water > 0.2 m/s)
Material / ϕ of the measuring part	stainless steel / 3 mm
Measuring case length	7 mm
Material / ϕ of the plastic part	DURATRON / 8 mm
Material / ϕ of the assembling part	stainless steel / 8 mm
Overall length, including the thread	as specified by the customer
Assembly thread type / OK	as specified by the customer
Electric strength	500 VAC according to EN 60730-1
Insulation resistance	> 200 M Ω at $500 V_{DC}$, $25^\circ\text{C} \pm 3^\circ\text{C}$
Lead-in cable type	2-wire shielded teflon 2×0.14 mm ² 3- and 4-wire shielded teflon 4×0.14 mm ²
Supply wire resistance	$0.274 \Omega / 1$ m at 25°C
Resistance to pressure	2.5 MPa

* in the case of 2-wire connection, it is necessary to add the effect of the lead-in cable line resistance, which is 0.071 °C / 1 m at a temperature of 25 °C, to the values measured on the individual sensors.

DECLARATION, CERTIFICATION, 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, as amended) or in an Accredited laboratory.

OPERATING CONDITIONS ↓

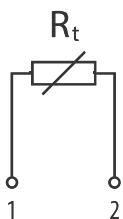
- Temperature near the lead-in cable: -50 to 220 °C
- Relative ambient humidity: 10 to 100%
- Atmospheric pressure: 70 to 106 kPa

ACCESSORIES ↓

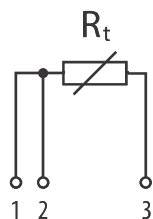
- Connectors

WIRING DIAGRAM ↓

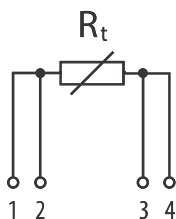
■ 2wire



■ 3wire



■ 4wire



www.sensit-rubberplastic.cz

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



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