



T01.03en

temperature

DESCRIPTION AND APPLICATION

These thermocouple temperature sensors are designed to measure temperatures up to 400 °C and 600 °C according to sensor type. When combining sensor and stainless steel central holder or thermowell, supplied as accessories, the sensors are possible to be used for temperature measurement in various applications in the industrial environment, for example even as pressure equipment within the meaning of the Government Regulation No. 26/2003 Coll. as amended. Maximum permitted operating pressure is 6.3 MPa (applies for case maximum length of up to 300 mm). The thermocouple temperature sensors are possible to be used for any control systems compatible with selected thermocouple type. Thermocouple temperature sensors type TCS 4x and TCS 6x meet ingress protection IP 54 in accordance with EN 60529, as amended. Thermocouple temperature sensors type TCS 64x and TCS 66x meet ingress protection IP 68 (1 bar) in accordance with EN 60529, as amended. Standard measuring range for temperature sensors TCS 4x and TCS 6x is -50 to 600 °C. Temperature range can not be exceeded even for a brief period. Maximum ambient temperature around the conection head is 100 °C.

The thermocouple temperature sensors are intended for operation in chemically non-aggressive environment. The use must be chosen with regard to temperature resistance of connection head and chemical resistance of connection head and stem of the sensor.

ACCESSORIES

- stainless steel thermowell JPTS 41 for types TCS 4K, TCS 4J, TCS 6K, TCS 6J
- stainless steel thermowell JPTS 641 for types TCS 64K, TCS 64J, TCS 66K, TCS66J
- metal central holder K 120
- screw with collet or cutting rings if different lengths of stem immersion of the temperature sensor are set

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.

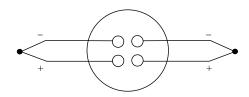
SPECIFICATIONS

| | TCS 4K TCS 6K | | TCS 4J TCS 6J | TCS 64K TCS 66K | TCS 64J TCS 66J | |
|--|------------------|--|-------------------------------|---------------------------------------|--|--|
| · · | hermocouple | "K" | thermocouple "J" | thermocouple "K" | thermocouple "J" | |
| Measuring range - | -50 to 400 °C | | | -50 to 600 °C, in a short time 650 °C | | |
| Type of thermocouple | | "J" and "K", single, double | | | | |
| Accuracy class | | standardly 2 in accordance with EN 60584 and DIN 43 710, further 1 | | | | |
| Version | | with an isolated measuring point | | | | |
| Diameter of the stem | | 6 mm | | | | |
| Standard length of the stem | | 50, 100, 160, 220, 280, 340 and 400 mm | | | | |
| Nominal pressure of the stem | | PN 63 (with a thread) up to 400 °C and length of the stem 300 mm | | | | |
| Thread types for variant with thread | | G 1/2"; M 20 x 1.5; M 27 x 2; others on customer's requirements | | | | |
| Material of the stem | | stainless steel | DIN 1.4301 | stainless steel D | inless steel DIN 1.4571 | |
| Reccommended wire cross section | | 0.35 to 1.5 mm ² | | | | |
| Ingress protection | | IP 54 in accord | lance with EN 60529, as amend | led IP 68 (1 bar) in ac | bar) in accordance with EN 60529, as amended | |
| Type of connection head | | LIMATHERM B | | LIMATHERM NA | LIMATHERM NAA | |
| Material of the connection head | | aluminium alloy | | | | |
| Ambient temperature around the connection head | | -30 to 100 °C | | -30 to 150 °C | -30 to 150 °C | |

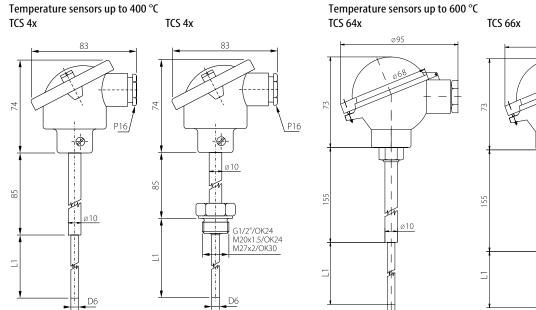


WIRING DIAGRAM

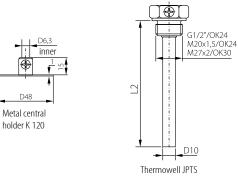
Wiring diamgram for temperature sensors up to 400 and 600 °C



DIMENSIONAL DRAFT







MODIFICATION AND CUSTOMIZATION

- variable stem design length L1, diameter, case material
- type of thermowell thread

