TG 40 – RIGHT-ANGLE TEMPERATURE SENSORS

B05.03en

DESCRIPTION AND APPLICATION

These right-angle temperature sensors with a bayonet TG 40 are designed to measure temperature of solid substances, however, they may be used also to measure temperature of liquid and gaseous substances. Due to temperature sensor design, the cable is led out at right angle to measuring part of the sensor. To fasten the temperature sensor into a point to be measured, the bayonet head that is screwed onto a spring is used. Combination of the bayonet nut, the spring and the corresponding bayonet adapter can provide higher pressure of the temperature sensor with the bayonet into the measured point. Maximum temperature range of sensor use is -50 to 350 °C (400 °C for a short period). The range for each design variant is reduced with a type of the temperature sensing element and the lead-in cable. The temperature sensors meet ingress protection from IP 50 to IP 67 according to the EN 60529 standard, as amended depending on the supply cable variant. The rectangular temperature sensors with a bayonet mount are intended for operation in chemically non-aggressive environment.

ACCESSORIES

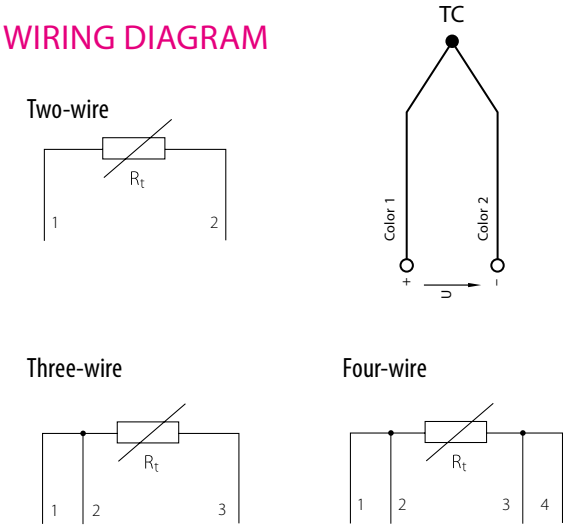
- bayonet adapter
- stainless steel thermowell JS 130F
- connectors

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

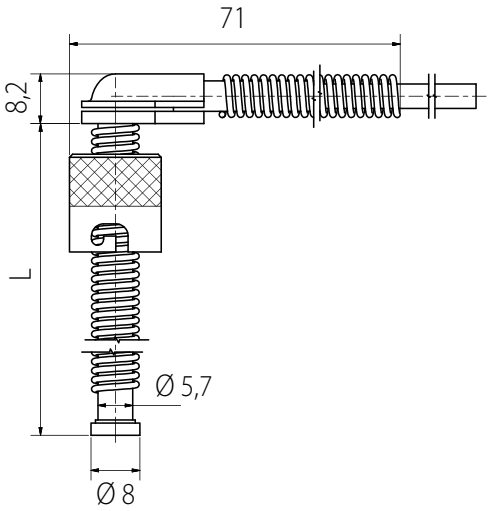


SPECIFICATIONS

Sensor type	TG 40
Sensing element	all types (Pt 100, Pt 1000, Ni 1000, Ni 10000,Ni 226=T1, NTC, PTC, KTY, TSiC, DALLAS, TC K, TC J, TC T and so on)
Case material	stainless steel DIN 1.4301
Diameter of case	6 mm or 8 mm
Diameter of case in contact part	8 mm or 10 mm
Length of case L	60 to 200 mm
Material of rectangular part	stainless steel
Case end	straight, semisphere R6 or apex 120°
Lead-in cable variations/ temperature range (can be limited by type of sensing element - specified in documentation)	PVC shielded -30 to 80 °C PVC unshielded -40 to 105 °C silicone shielded -50 to 200 °C teflon shielded -50 to 250 °C with fiberglass 0 to 350 °C (with metal braiding) with fiberglass 0 to 400 °C (with metal braiding)
Ingress protection	IP 50 to IP 67 in accordance with EN 60529, as amended - according the type of cable
Material / dimension of bayonet nut	ø 6 mm: nickel-plated brass / L = 16 mm, inner ø 12.8 mm ø 8 mm: nickel-plated brass / L = 18 mm, inner ø 15 mm
Matetrial / dimension of spring	ø 6 mm: stainless steel DIN 1.4301 / L = 200 mm, outer ø 8 mm, ø of wire 1 mm ø 8 mm: stainless steel DIN 1.4301 / L = 200 mm, outer ø 10 mm, ø of wire 1 mm
Insulation resistance	200 MΩ at 500 V DC, 25 ± 3 °C
Maximum permissible static pull on the lead-in cable	1 kg

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

DIMENSIONAL DRAFT



MODIFICATION AND CUSTOMIZATION

- variable stem design – length L, diameter, case material, case ending
- possibility to encase two sensing elements
- accuracy class A (with the exception of sensors Ni 10000/5000, Ni 10000/6180, T1 = Ni 226, thermistor NTC 20kΩ)
- encapsulation of other types of sensing elements (DALLAS, KTY, TSiC, SMT, etc.)
- variable spring length

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