

# TG 60, TG 61 AND TG 62 – TEMPERATURE SENSORS WITH BAYONET MOUNT

B01.04en

## DESCRIPTION AND APPLICATION

These temperature sensors are primarily designed for temperature measurement of solid substances, but can also be used for temperature measurement of liquids or gaseous substances. To mount the sensor to the measuring point, a bayonet nut is used that is screwed on a spring. The combination of a bayonet nut, spring and corresponding bayonet connector can provide higher contact pressure of the sensor to the measuring point or compensate any changes in the distance between the nut and measuring point during measurement.

The maximum temperature range of the sensors is -50 to 350 °C (short-term 400 °C). The range for individual design variations is narrowed down by the type of temperature sensing element and supply cable. The sensors meet the level of protection from IP 50 to IP 67 according to EN 60529, as amended, depending on the type of lead-in cable. The sensors are designed to operate in a non-aggressive environment. The method of use must be chosen with regard to temperature and chemical resistance of the case and supply cable.

## ACCESSORIES

- stainless steel thermowell JS 130G
- bayonet adapter
- 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	TG 60	TG 61	TG 62
Case end	straight	semisphere R6	apex 120°
Sensing element	all types (Pt 100, Pt 1000, Ni 1000, Ni 10000, Ni 2226=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		
Length of case L	10 to 85 mm (with addition of 15 mm for cable attachment)		
Lead-in cable variations/temperature range (can be limited by type of sensing element – determine in documentation)	PVC shielded PVC unshielded silicone shielded teflon shielded with fibreglass	-30 to 80 °C -40 to 105 °C -50 to 200 °C -50 to 250 °C 0 to 350 °C or to 400 °C	
Ingress protection	PVC and silicone cables teflon cables cables with glass fibre with EN 60529, as amended	IP 67 IP 64 IP 50	
Material / Dimension of bayonet nut	nickel-plated brass / L = 16 mm, inner $\varnothing$ 12,8 mm		
Material / Dimension of spring	stainless steel DIN 1.4301 / L = 200 mm, outer $\varnothing$ 6 mm, $\varnothing$ of wire 0,7 mm		
Insulation resistance	200 M $\Omega$ at 500 VDC, 25 °C $\pm$ 3 °C		
Maximum permissible static pull on the lead-in cable	1 kg		

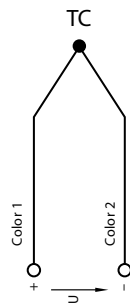
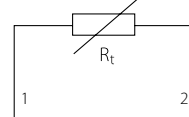
Note: Certain technical specifications of thermocouple sensors (lead wires, IP rating, etc.) may differ with different types.



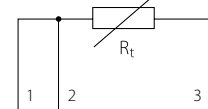
TEMPERATURE SENSORS WITH A CABLE

## WIRING DIAGRAM

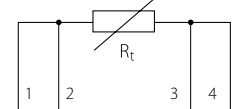
Two-wire



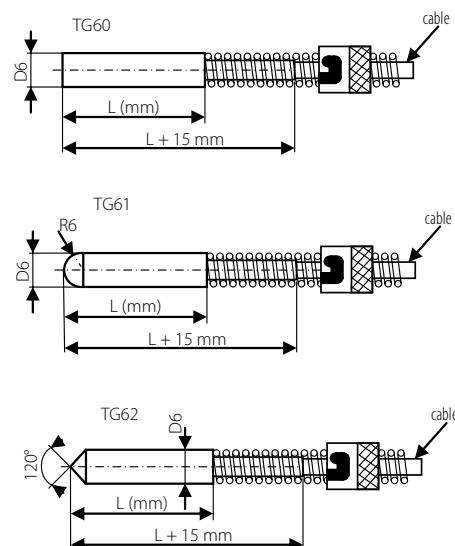
Three-wire



Four-wire



## DIMENSIONAL DRAFT



## MODIFICATION AND CUSTOMIZATION

- possibility to encase two sensing elements
- optional design of case dimensions in terms of: diameter – 5 to 7 mm, L length, case material, case end design
- spring length
- accuracy class A (with the exception of sensors Ni 10000/5000, Ni 10000/6180, T1 = Ni 2226, thermistor NTC 20 k $\Omega$ )

