

RTD Sensor with Current Output TSOK

- ◆ Pt100 sensitive element
- ◆ Two-wire 4...20 mA output
- ◆ Easy & Fast connection plug
- ◆ Vibration-proof design
- ◆ Small dimensions
- ◆ High protection class - IP65
- ◆ Local indicator available

The COMECO temperature probes series **TSOK** measure temperature by means of a Pt100 sensitive element and convert it into standard 4...20mA two-wire current signal. These transmitters have a robust vibration-proof stainless steel sheath with IP65 protection class. The probe interior is filled with special compound, which protects the electronics from the harsh ambient influences. The TSOK probes are equipped with connectors according to DIN 43650 that allow fast and easy electrical decoupling. TSOK probes can be ordered with six different measuring temperature ranges from -50 °C and up to +200 °C. Various stem diameters and lengths as well as stainless steel types are also available. A local loop-powered indicator TI200 can be optionally mounted between the sheath top and the connector. Thanks to their small size and robust design, the TSOK probes are applicable for cars, rail vehicles, construction machines, and other industrial equipment.

Technical specifications

Input

Input (RTD) type	Pt100 (w=1.385)
Measuring ranges	-50 to +50 °C; 0 to +50 °C 0 to +100 °C; -50 to +100 °C; 0 to +150 °C; 0 to +200 °C minimum span 50 °C
Range on request	

Output

Output type	2-wire, 4 to 20 mA
Linearity	to measured value
Output at sensor burnout	32 mA
Output at sensor shorted	0.2 mA

Accuracy

(transmitter only)

Measurement error	0.2 % from span or 0.2 °C ⁽¹⁾
Non-linearity	within measurement error
Temperature drift	0.01 % of span for 1 °C

⁽¹⁾ Which is greater

Power supply

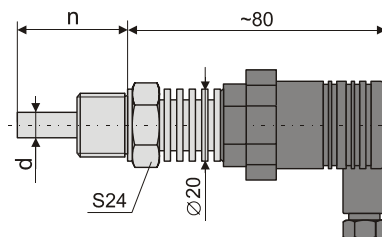
Voltage	10 to 32 VDC
Admissible variations	1 Vp-p @ 50Hz
Maximum line load	750Ω at 24V/20mA

Operating conditions

Media pressure	Max. 25 Bar
Ambient temperature	from min. -40 to max. 85 °C
Ambient humidity	0 to 98 %RH
EM compatibility	according to EN 61326

Design and materials

Sheath material	Stainless Steel 1.4301 or 1.4571
Electrical connection	Connector DIN 43650
Mounting thread	M16, M18, M20, 3/8", 1/2", or other
Stem diameter	6 or 8 mm
Stem length	20 to 300 mm, step 5 mm
Protection class	IP65



Ordering code



TSOK - G3.G4.G6.G9.G10 - #1

Code	Feature or option	Code values
G3	Temperature range	T17 - -50 to +50 °C, T18 - 0 to +50 °C, T19 - 0 to +100 °C, T12 - -50 to +100 °C, T20 - 0 to +150 °C, T7 - 0 to +200 °C, TZ - other (specify, ΔT≥50°C)
G4	Stem diameter 'd'	6 - 6 mm, 8 - 8 mm
G6	Stem length 'n'	20...300 (step 5 mm)
G9	Mounting thread	Q0 - M16x1.5, Q1 - M18x1.5, Q2 - M20x1.5, Q3 - G3/8", Q4 - G1/2", Q9 - 3/8" NPT, Q10 - 1/2" NPT, QZ - other (specify!)
G10	Sheath material	M1 - 1.4301, M3 - 1.4571
#1	Local indicator TI200 with alarms ⁽²⁾	X - none, A - local indicator mounted

⁽²⁾ See TI200 specifications