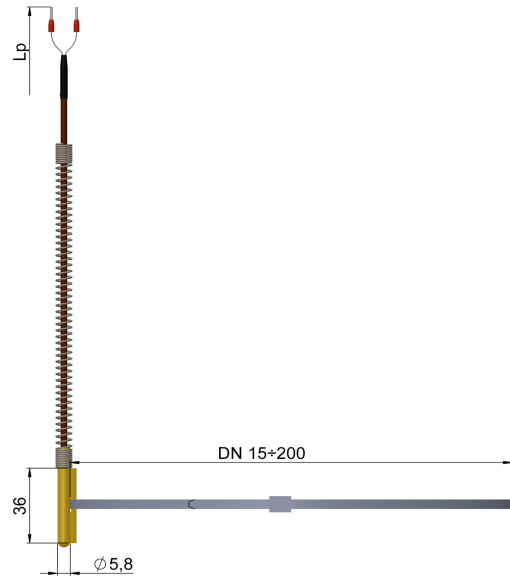


Temperature sensors for surface measurement **TOPE-244, TONE-244, TTJE-244, TTKE-244**

Technical description

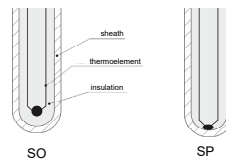
Measuring range / sensing element		
(-50 ÷ 250) °C	Pt100	class B
(-50 ÷ 250) °C	Ni100	
(-40 ÷ 400) °C	J, K	class 2
Thermowell		
- material: brass		
- length [mm]: 36		
- radiator increasing the heat receiving surface with a band enabling mounting on a DN 15÷200 mm pipeline		
Wire		
- Cu wire: 2x0,35 mm ² in teflon insulation and metal braid		
- thermocouple wire: 2, 4x0,22 mm ² in double fiberglass insulation and metal braid		
- length L _p =1,5m (standard)		
- wires resistance Cu ~0,102 Ω/m~0,26 °C		
Options		
- Pt500, Pt1000, Ni1000		
- other cable insulations acc. to requirements: silicone insulation, operating temperature up to 180 °C, insulation of fiberglass in metal braid, operating temperature up to 400 °C		
- 3-, 4-wire connection for RTD		
- Pt100: class A (-30 ÷ 250) °C, class AA (0 ÷ 150) °C; TC class 1		



Tolerance for thermocouples class acc to. PN-EN 60584

Thermocouple	Class 1		Class 2	
	Range [°C]	Tolerance [°C]	Range [°C]	Tolerance [°C]
J Fe-CuNi	(-40÷375) (375÷750)	±1,5 ±0,004 [t]	(-40÷333) (333÷750)	±2,5 ±0,0075 [t]
K NiCr-NiAl	(-40÷375) (375÷1000)	±1,5 ±0,004 [t]	from (-40÷333) (333÷1200)	±2,5 ±0,0075 [t]

Types of measuring hot junction



Ordering code

Temperature sensor	...	T	...	E-244	-
Single	no sign								
Double (2 or 3-wire connection.)	2								
Resistor Pt		OP							
Resistor Ni		ON							
Thermocouple Fe-CuNi		TJ							
Thermocouple NiCr-NiAl		TK							
Resistor type				Pt100*					
Resistor class							A, B*		
Thermocouple class							1, 2		
Measuring circuit for RTD							2, 3, 4		
Cable length L _p [m]									1,5m*

* or others acc. to requirements

Ordering example

TONE-244-Ni100-2-1,5m double RTD sensor Ni100, 2-wire connection connection with lead wire in teflon insulation and metal braid, cable lengths L_p=1,5m