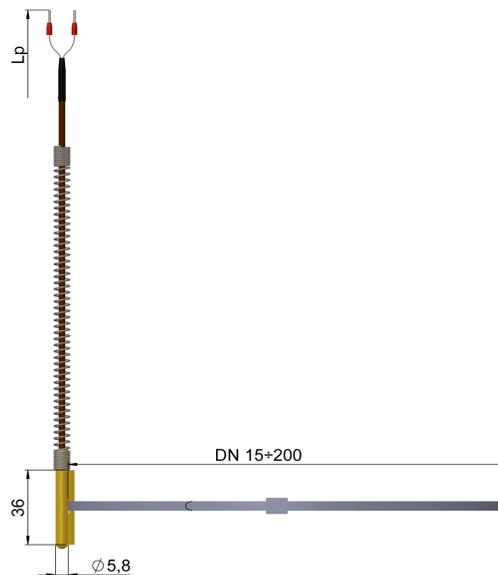


Temperature sensors for surface measurement **TOPE-244, TONE-244, TTJE-244, TTKE-244**

Technical description

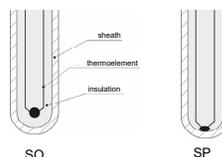
Measuring range / sensing element		
(-50 ÷ 250) °C	Pt100	class B
(-50 ÷ 250) °C	Ni100	
(-40 ÷ 400) °C	J, K	class 2
Thermowell		
– material: brass		
– length [mm]: 36		
– radiator increasing the heat receiving surface with a band enabling mounting on a DN 15÷200 mm pipeline		
Wire		
– Cu wire: 2x0.22 mm ² with fiberglass insulation and metal braiding		
– thermocouple wire: 2 or 4x0.22 mm ² with double fiberglass insulation and metal braiding		
– Length L _p = 1.5 m (standard)		
– Cu wire resistance ~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