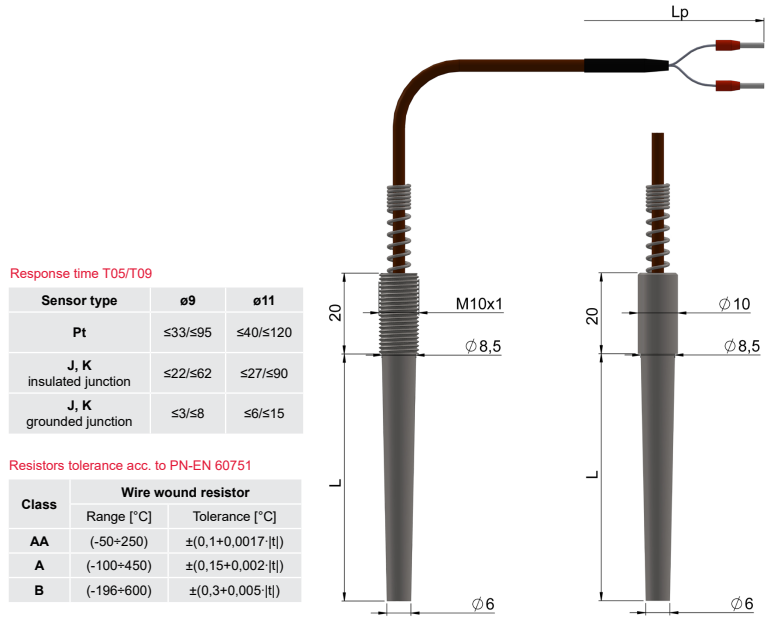


Temperature sensors of machinery and device parts **TOPGE-5, 6, TTJGE-5, 6, TTKGE-5, 6**

Dane techniczne

Measuring range / sensing element		
(-50 ÷ 400) °C	Pt100	class B
(-40 ÷ 400) °C	J, K	class 2
Sheath		
– material: steel 1.4541		
– diameter [mm]: ø6/ø8,5		
– length L [mm]: 30÷100		
– with thread M10x1 - T...GE-5, no thread T...GE-6		
Lead wire		
– Cu wire or thermocouple wire: 2x0,22 mm ²		
– fiberglass insulation with metal braid		
– length L _p =1,5m (standard)		
– measuring junction for TC: insulated SO		
– wires resistance Cu ~0,14 Ω/m=~-0,36 °C		
Options		
– Pt500, Pt1000, Ni100, Ni1000, N, T		
– other lead wire insulation types: PVC, silicone, teflon, acc. to requirements		
– measuring junction for TC: grounded SP		
– 3-, 4-wire connection for RTD		
– Pt100: class A (-30 ÷ 300) °C, class AA (0 ÷ 150) °C; TC: class 1		



Response time T05/T09

Sensor type	ø9	ø11
Pt	≤33/≤95	≤40/≤120
J, K insulated junction	≤22/≤62	≤27/≤90
J, K grounded junction	≤3/≤8	≤6/≤15

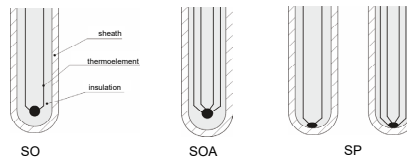
Resistors tolerance acc. to PN-EN 60751

Class	Wire wound resistor	
	Range [°C]	Tolerance [°C]
AA	(-50÷250)	±(0,1+0,0017· t)
A	(-100÷450)	±(0,15+0,002· t)
B	(-196÷600)	±(0,3+0,005· t)

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	...	GE	-	...	-	...	-	...	-	...	-	...
Resistor Pt	OP												
Thermocouple Fe-CuNi	TJ												
Thermocouple NiCr-NiAl	TK												
Construction version: with thread						5							
Construction version: without thread						6							
Resistor type											Pt100*		
Junction insulated from the sheath											SO		
Junction grounded											SP		
Resistor class													A, B*
Thermocouple class													1, 2
Measuring circuit for RTD													2, 3, 4
Sheath length L [mm]													30*
Cable length L _p [m]													1,5m*

* or others acc. to requirements

Ordering example

TOPGE-5-Pt100-B-3-50-2m