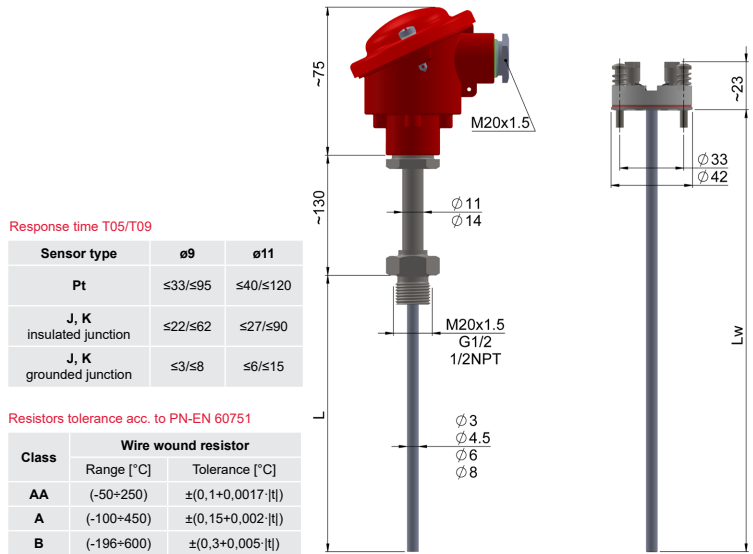


Temperature sensors with replaceable measuring inserts **TOPGI-1., TTJGI-1., TTKGI-1.**

**Technical description**

Measuring range / sensing element		
(-200 ÷ 600) °C	<b>Pt100</b>	class B
(-40 ÷ 600) °C	<b>J, K</b>	class 2
Measuring insert – p. 43+44		
– resistance (diameters [mm]): ø3; ø6; ø8		
– thermocouple (diameters [mm]): ø3; ø4,5; ø6; ø8		
– 2-, 3-, 4-wire connection (for Pt100)		
– 2-, 3-wire connection (for 2xPt100)		
– W1 tube measuring insert, L [mm]: 50+1000		
– W2 mineral insulated measuring insert, L <sub>min</sub> [mm]: 100		
– insert length: L <sub>w</sub> = L+157 mm		
Sheath		
– material of distance part: steel 1.4541		
– unsheathed immersion part of the insert		
– for mounting in additional protection tubes and thermowells: OSG, OTG, OGG, SW, SWT, SWG – p. 200+214		
Connection head		
– BA, IP55, (-40 ÷ 100) °C		
Options		
– local display built into the DANAWwin head connection – p. 220		
– Pt500, Pt1000, Ni100, Ni1000, N, T		
– other threads (inch and metric) acc. to requirements		
– measuring junction types – p. 13		
– connection heads: p. 217+218 (eg. stainless BEG; aluminium NA, IP65; NA with snap lock)		
– Pt100: class A (-100 ÷ 450) °C, class AA (-50 ÷ 250) °C; (for ø6 and ø8) TC: class 1		
Additional accessories		
– temperature transmitters – p. 225+241		
– compensation cables – p. 197		



**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

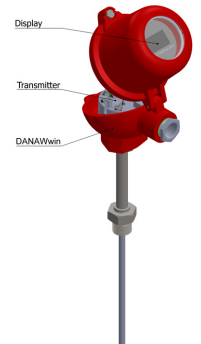
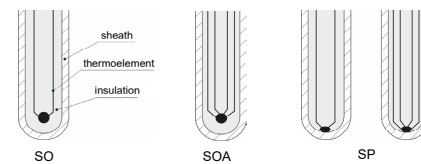
**Resistors tolerance acc. to PN-EN 60751**

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	...	GI-1.	...	...	...	...	...	...	...	...	...
Single		<b>no sign</b>											
Double		<b>2</b>											
Single with transmitter		<b>AP</b>											
Double with transmitter (only one circuit)		<b>AP2</b>											
Double with two transmitters		<b>2AP2</b>											
With local display (single)		<b>APW</b>											
Resistor Pt													
Thermocouple Fe-CuNi													
Thermocouple NiCr-NiAl													
With W1 measuring insert													
With W2 measuring insert													
Junction isolated from the sheath													
Double junction isolated from the sheath													
Grounded junction													
Dimension L [mm]													
Measuring insert diameter [mm]													
Thread dimension													
Resistor class													
Thermocouple class													
Measuring circuit for RTD													
Type of transmitter													
Setting of transmitter temperature													

\* or others acc. to requirements

**Ordering example**

**TOPGI-11-160-6-M20x1,5-B-2**

On request, a Quality Certificate confirming the conformity of workmanship or a Calibration Certificate of the Accredited Laboratory for Temperature Measurements at Limatherm Sensor Sp. z o.o.