

Temperature sensors with replaceable measuring inserts TOPGN-11, TTJGN-11, TTKGN-11

Technical description

Measuring range* / sensing element		
(-200 ÷ 550) °C	Pt100	class B
(-40 ÷ 550) °C	J, K	class 2
Measuring insert – p. 43+44		
– tube W1 or mineral insulated W2 and W3		
– 2-, 3-, 4-wire connection (for Pt100)		
– 2-, 3-wire connection (for 2xPt100)		
– insert length: $L_w = L + 155$ mm		
Sheath		
– material: steel 1.4541		
– length L [mm]: 50÷2000		
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; TC: class 1		
Additional accessories		
– temperature transmitters – p. 225+241		
– process protection tubes and thermowells – p. 200+214		
– compensation cables – p. 197		

* for clean air

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

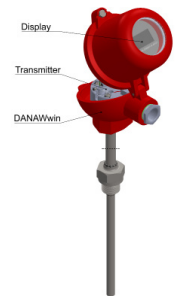
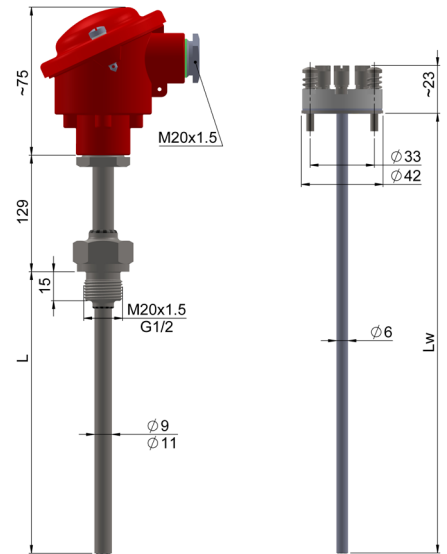
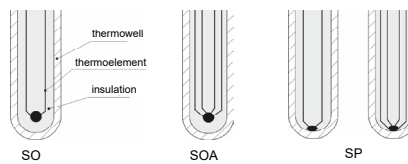
Resistors tolerance acc. to PN-EN 60751

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	...	GN-11	-	...	...	...	...	...	...	...	...	...
Single	no														
Double	sign														
Single with transmitter	2														
Double with transmitter (only one circuit)	AP														
Double with two transmitters	AP2														
With local display (single)	2AP2														
	APW														
With tube measuring insert W1	no sign														
With mineral insulated measuring insert W2 or W3	P														
Resistor Pt														OP	
Thermocouple Fe-CuNi														TJ	
Thermocouple NiCr-NiAl														TK	
Sheath length L [mm]														250*	
Thermowell diameter [mm]														9, 11	
Thread dimension														G½; M20x1,5*	
Junction isolated from the sheath														SO	
Double junction isolated from the sheath														SOA	
Grounded junction														SP	
Resistor class														A, B*	
Thermocouple class														1, 2	
Measuring circuit for RTD														2, 3, 4	
Type of transmitter														RT-01*	
Setting of transmitter temperature														(0 ÷ 400) °C*	

* or others acc. to requirements

Ordering example

APWTTKGN-11-600-11-G½-SO-1-Tx-(-40 ÷ 500) °C

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.