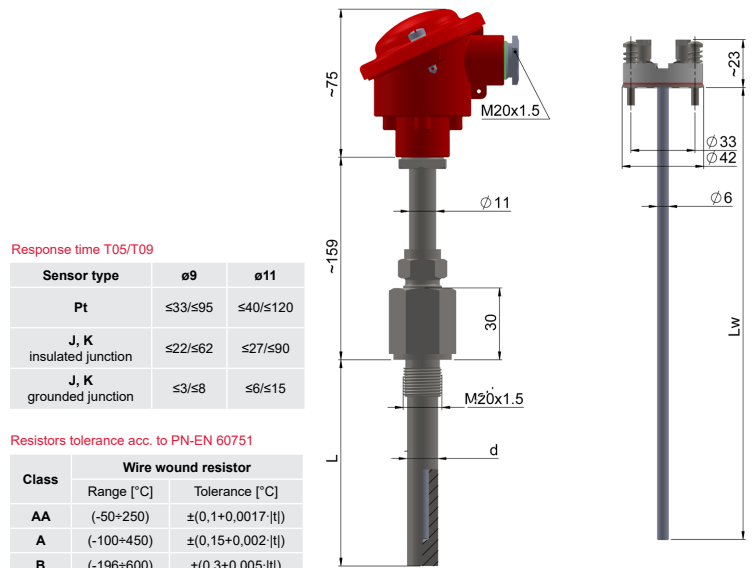


Temperature sensors with replaceable measuring inserts **TOPSWG-11, TTJSWG-11, TTKSWG-11**

Technical description

Measuring range / sensing element		
(-200 ÷ 600) °C	Pt100	class B
(-40 ÷ 700) °C	J, K	class 2
Measuring insert – p. 43+44		
– 2-, 3-, 4-wire connection (for Pt100)		
– 2-, 3-wire connection (for 2xPt100)		
– insert length: $L_w = L + 180$ mm		
Sheath		
– material: steel 1.4541		
– process thread: M20x1,5; G½; ½NPT		
– connection thread M20x1,5		
– thermowell diameter d_{min} [mm]: 16		
– thermowell dimension: L_{max} [mm]: 670		
Connection head		
– BA, IP55, (-40 ÷ 100) °C		
Options		
– local display built into the DANAWwin head connection – p. 220		
– Pt500, Pt1000, Ni100, Ni1000, N, T		
– 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		
– compensation cables – p. 197		



Response time T05/T09

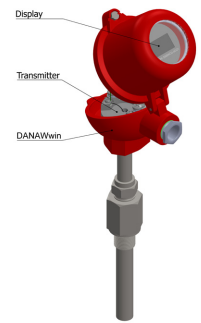
Sensor type	ø9	ø11
Pt	≤33/≤95	≤40/≤120
J, K insulated junction	≤22/≤62	≤27/≤90
J, K grounded junction	≤3/≤8	≤6/≤15

Resistors tolerance acc. to PN-EN 60751

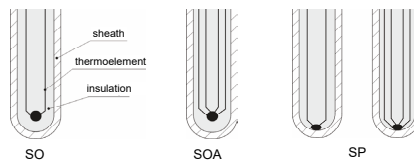
Class	Wire wound resistor	
	Range [°C]	Tolerance [°C]
AA	(-50+250)	±(0,1+0,0017· t)
A	(-100+450)	±(0,15+0,002· t)
B	(-196+600)	±(0,3+0,005· t)

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	...	SWG	...	11-
Single															
Double															
Single with transmitter															
Double with transmitter (only one circuit)															
Double with two transmitters															
With local display (single)															
With tube measuring insert															
With mineral insulated measuring insert															
Resistor Pt															
Thermocouple Fe-CuNi															
Thermocouple NiCr-NiAl															
Junction isolated from the sheath															
Double junction isolated from the sheath															
Grounded junction															
Thermowell dimension dxL [mm]															
Material of the sheath															
Resistor class															
Thermocouple class															
Measuring circuit for RTD															
Thread dimension D															
Type of transmitter															
Setting of transmitter temperature															

* or others acc. to requirements

Ordering example

APTTKSWG-11-SO-16x400-1.4541-2-G½- Tx-(0 ÷ 550) °C

On request, a free Quality Certificate specifying the sensor class or a paid Calibration Certificate of the Accredited Laboratory for Temperature Measurements at Limatherm Sensor Sp. z o.o.