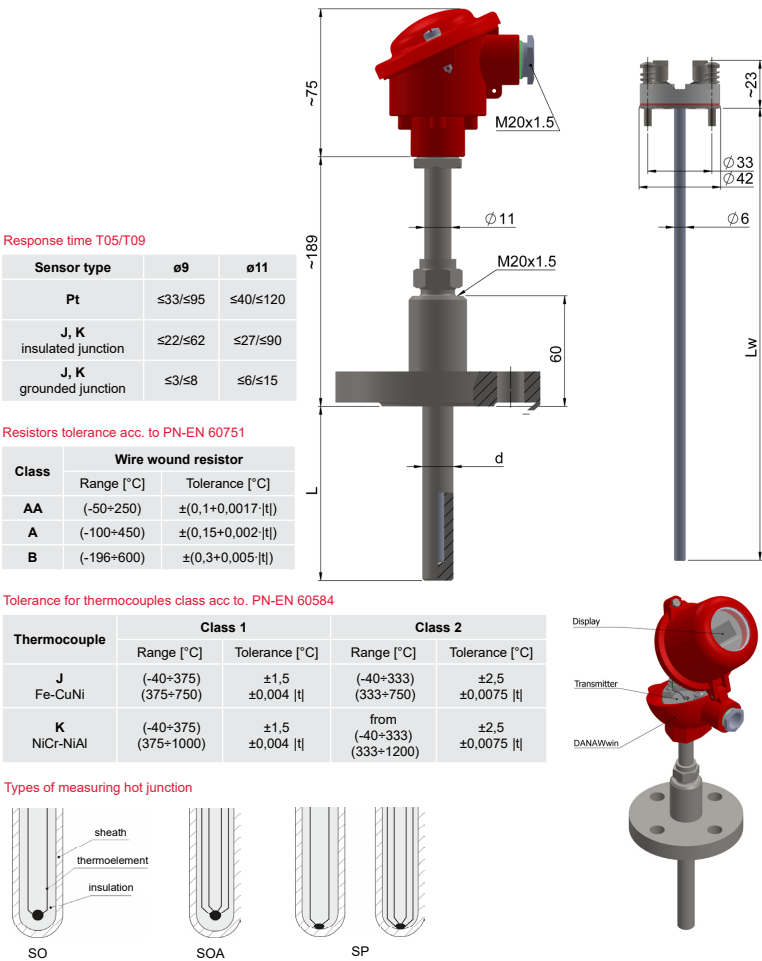


Temperature sensors with replaceable measuring inserts **TOPSWT-11, TTJSWT-11, TTKSWT-11**

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: $L_w=L+210$ mm		
Sheath		
– material: steel 1.4541		
– flange: DN20PN16B1 acc. to PN-EN 1092-1*		
– connection thread M20x1,5		
– thermowell diameter d_{min} [mm]: 16		
– thermowell dimension: L_{max} [mm]: 640		
Connection head		
– BA, IP55, (-40 ÷ 100) °C		
Options		
– local display built into the DANAWin 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

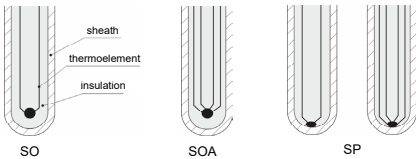
Resistors tolerance acc. to PN-EN 60751

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	...	SWT	...	-	11	-	...	-	...	...	...	...	...	...
Single	no sign																
Double	2																
Single with transmitter	AP																
Double with transmitter (only one circuit)	AP2																
Double with two transmitters	2AP2																
With local display (single)	APW																
With tube measuring insert	no sign																
With mineral insulated measuring insert	P																
Resistor Pt					OP												
Thermocouple Fe-CuNi					TJ												
Thermocouple NiCr-NiAl					TK												
Junction isolated from the sheath						SO											
Double junction isolated from the sheath	for					SOA											
Grounded junction	TC					SP											
Thermowell dimension dxL [mm]								16x400*									
Material of the sheath										1.4541*							
Resistor class												A, B*					
Thermocouple class												1, 2					
Measuring circuit for RTD												2, 3, 4					
Type of flange													DN20PN40B1*				
Type of transmitter														RT-01*			
Setting of transmitter temperature															(0 ÷ 400) °C*		

* or others acc. to requirements

Ordering example

APTTKSWT-11-SO-16x400-1.4541-2-DN40PN16B1- Tx-(-0 ÷ 550) °C