

## Temperature sensors with non-replaceable measuring inserts TOPGNN-2, TTKGNN-2, TTJGNN-2

### Dane techniczne

Measuring range* / sensing element		
(-200 ÷ 500) °C	<b>Pt100</b>	class B
(-40 ÷ 600) °C	<b>J, K</b>	class 2
Measuring insert		
– non-replaceable		
Sheath		
– material: steel 1.4541		
– length L [mm]: 200÷1500		
Connection head		
– BA, IP55, (-40 ÷ 100) °C		
Options		
– local display built into the DANAWwin head connection – p. 220		
– Pt500, Pt1000, Ni100, Ni1000		
– other threads (inch and metric) acc. to requirements		
– 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		

\* 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

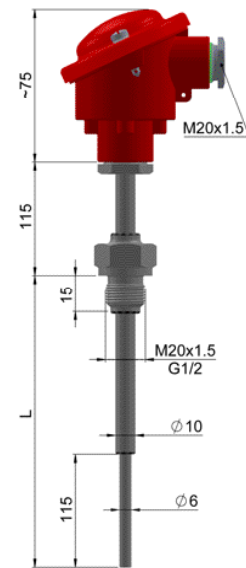
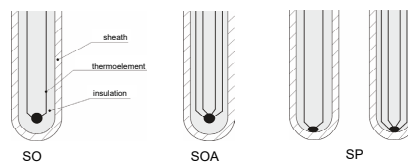
#### Resistors tolerance acc. to PN-EN 60751

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	...	TOPGNN-2	-	...	...	...	...	...	...
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								
Sheath length L [mm]		500*							
Thread dimension		G½; M20x1,5*							
Resistor class						A, B*			
Measuring circuit							2, 3, 4		
Type of transmitter								RT-01*	
Setting of transmitter temperature									(0 ÷ 400) °C*

\* or others acc. to requirements

### Ordering example

TOPGNN-2-300-G½-A-3