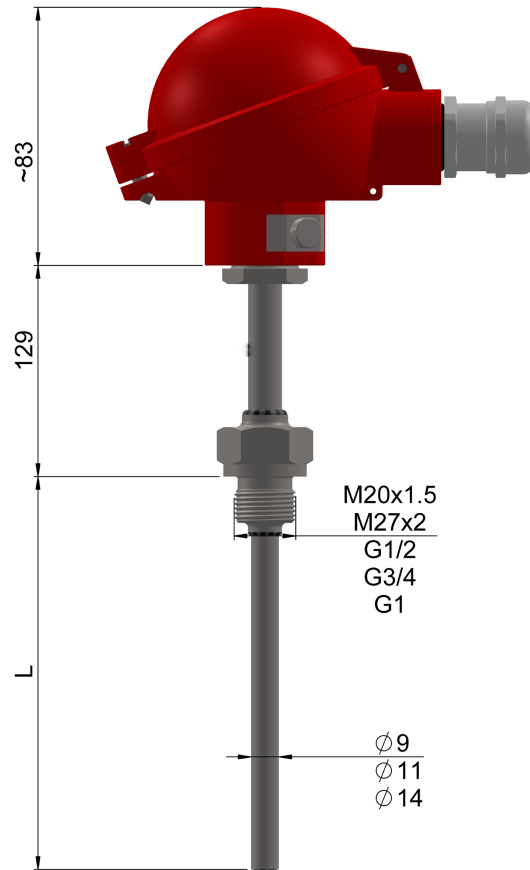


Intrinsically safe temperature sensors with replaceable measuring inserts **TOPGN-1..Exi, TTJGN-1..Exi, TTKGN-1..Exi**



Technical description

Measuring range / sensing element		
(-200 ÷ 550) °C	Pt100	class B
(-40 ÷ 550) °C	J, K	class 2
Measuring insert – p. 179		
– diameter [mm]: ø6		
– 2-, 3-, 4-wire connection (for Pt100)		
– 2-, 3-wire connection (for 2xPt100)		
– insert length: L+155 mm		
– mineral insulated measuring insert (min. 3-wire connection)		
Thermowell		
– material: steel 1.4541		
– diameter [mm]: ø9, ø11, ø14		
– length L [mm]: 50+2000		
Connection head – p. 219		
– aluminium XE-DANA (S1-standard), XE-DAND (S2), XE-DANAW (W1), XE-DANDW (W2) or stainless steel XE-BE (N1), IP65		
– cable gland ATEX II GD IP68 (for cable 5+10 mm)		
– operating temperature up to 90 °C		
Construction version		
– Exi acc. to ATEX		
– WE Type-Examination Certificate: KDB 07ATEX055		
⊕ I M1 Ex ia I (only with connection head N1)		
⊕ II 1/2G Ex ia IIC T6; II 1D Ex ia IIIC T85 °C (for ø11, 14)		
2G Ex ia IIC T6; II 1D Ex ia IIIC T85 °C (for ø9)		
– 2AP version... and AP2... only with connection heads W1 and W2		
Options		
– Pt500, Pt1000, T, N		
– other threads (inch and metric) acc. to requirements		
– Pt100: class A (-50 ÷ 400) °C, class AA (0 ÷ 150) °C; TC: class 1		
Additional accessories		
– temperature transmitters with Exi version – p. 225+241		



TEMPERATURE SENSORS FOR FOOD INDUSTRY

J

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, Na 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

