Limatherm Sensor Sp. z o.o.
ul. Skrudlak 1, 34-600 Limanowa
www.limathermsensor.pl

tel. (+48 18) 330 10 00
fax. (+48 18) 330 10 04
e-mail info@limathermsensor.pl

Temperature sensors with non-replaceable measuring inserts **TOPGB-55, TTJGB-55, TTKGB-55**

Dane techniczne

Measuring range* / sensing element		
(-200 ÷ 150) ºC	**Pt100**	class B
(-40 ÷ 150) ºC	**J, K**	class 2

Measuring insert

– non-replaceable

Sheath

– material: steel 1.4541
– length L [mm]: 50÷1500

Connection head

– MA, IP54, (-40 ÷ 100) ºC

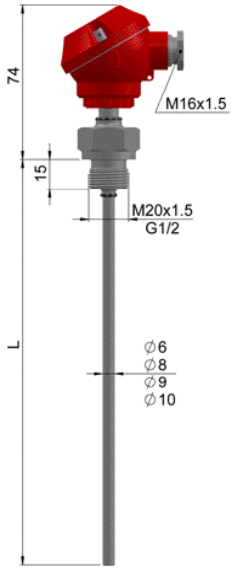
Options

– Pt500, Pt1000, Ni100, Ni1000, N, T
– other threads (inch and metric) acc. to requirements
– measuring junction types – p. 13
– connection head - stainless MBEG – p. 218
– Pt100: class A (-100 ÷ 150) ºC, class AA (-50 ÷ 150) ºC; TC: class 1

Additional accessories

– temperature transmitters (only Pt100, 2-wire connection) – p. 237
– 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

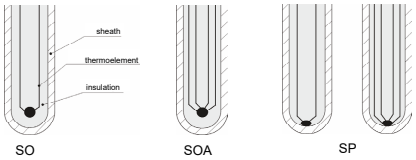
Resistors tolerance acc. to PN-EN 60751

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	...	GB-55 – ... – ... – ... – ... – ... – ... – ... – ...– ...
Single	no sign			
Double (only 2-wire connection)	2			
With transmitter (for Pt100)	AP			
Resistor Pt			OP	
Thermocouple Fe-CuNi			TJ	
Thermocouple NiCr-NiAl			TK	
Junction isolated from the sheath	for TC			SO
Double junction isolated from the sheath	for TC			SOA
Grounded junction	for TC			SP
Sheath length L [mm]				50*
Thermowell diameter d [mm]				6, 8, 9, 10, 11*
Thread dimension				G½; M20x1,5*
Resistor class				A, B*
Thermocouple class				1, 2*
Measuirng circuit for RTD (single)				2, 3, 4*
Measuirng circuit for RTD (double)				2
Type of transmitter (tylko Pt100, 2-przew.)				LTT-03J
Setting of transmitter temperature				(0 ÷ 400) ºC*

* or others acc. to requirements

Ordering example **TOPGB-55–300–6–G½–A–3**