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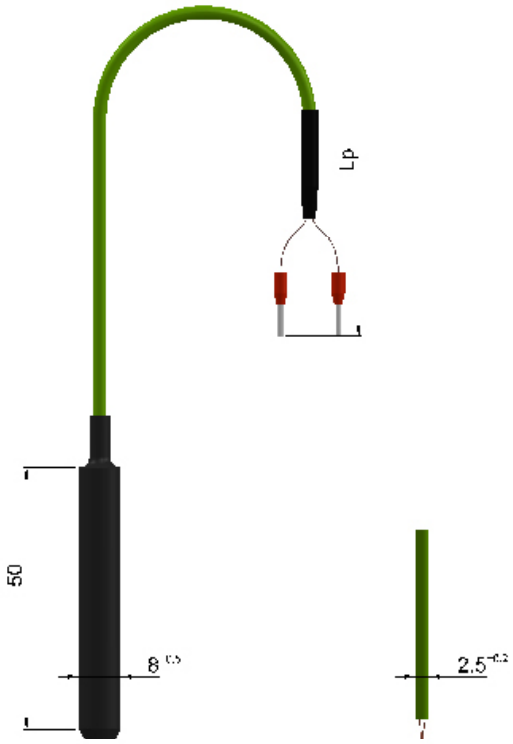
Temperature senors of machinery and device parts **TOPE-89, TONE-89**

Technical description

Measuring range / sensing element		
(-50 ÷ 200) °C	**Pt100**	class B
(-50 ÷ 150) °C	**Ni100**	
Sheath		
– flexible laminate in a shrinkable jacket		
Lead wire		
– Cu wire: 2x0,22 mm² in fiberglass insulation – length L_p=0,5m (standard) – wires resistance Cu ~0,14 Ω/m=~0,36 °C		
Options		
– Pt500, Pt1000, Ni100, Ni1000 – other lead wire insulation types: silicone, teflon, acc. to requirements – 3-, 4-wire connection – Pt100: class A (-30 ÷ 200) °C, class AA (0 ÷ 150) °C		



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|)

Ordering code

Temperature sensor	T ...	E-89 – ... – ...– ..– ...
Resistor Pt	OP	
Resistor Ni	ON	
Resistor type		Pt100*
Resistor class		A, B*
Measuring circuit		2, 3, 4
Cable length L_p [m]		0,5m*

* or others acc. to requirements

Ordering example

TOPE–89–Pt100–B–2–0,5m sensor with Pt100, class B, 2-wire connection connection, with cable length L_p=0,5m

TONE–89–Ni100–B–3–1,5m sensor with Ni100, class B, 3-wire connection, with cable length L_p=1,5m

On request, a Quality Certificate confirming the conformity of workmanship or a Calibration Certificate of the Accredited Laboratory for Temperature Measurements at Limatherm Sensor Sp. z o.o.