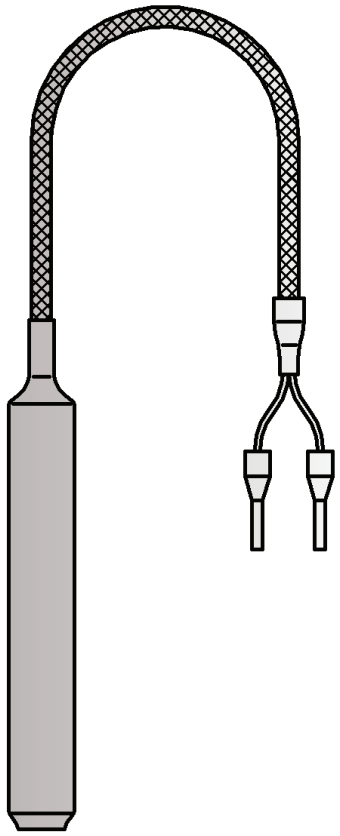
limatherm SENSOR

Temperature Sensors for Measurement of Machinery and Device Parts

TOPE-89, TONE-89

AP 108

Sensor suitable for temperature measurement of motor windings.
Sensor construction enables quick and easy installation.



Specification

Temperature range / sensing element

-50÷200ºC	**Pt100**	class B
-50÷150ºC	**Ni100**	

Sheath

– flexible laminate with heat shrink jacket

Lead wire

– stranded Cu wire, 2x0,22mm^2 fiberglass insulation, metal overbraid
– length L_p [m]: 0,5 (standard)
– Cu wire resistance ~0,14 Ω/m = ~0,36ºC

Other parameters acc. to requirements

Options

Temperature transmitter application

Temperature transmitter with standard 4÷20mA, 0÷10V output signals and with the HART or PROFIBUS communication protocols can be installed in the control cabinet.

Calibrations performed by Limatherm Sensor Sp. z o.o. are confirmed with the Calibration Certificate of the Accredited Laboratory for Temperature Measurements.

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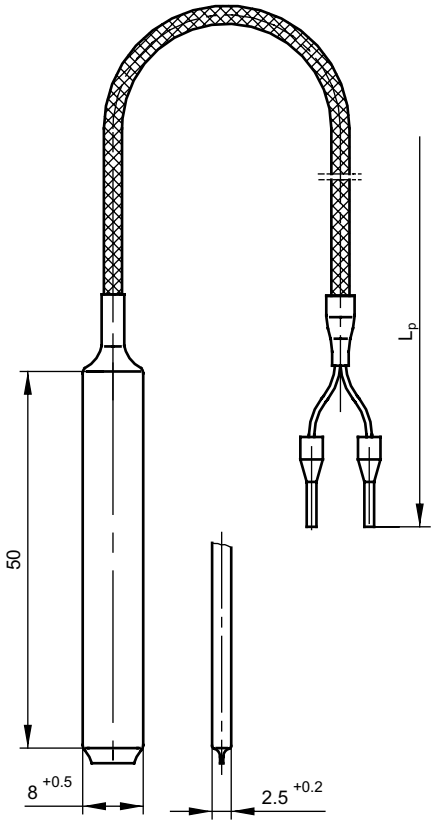


Tolerance for classes of sensors with resistors Pt acc. to PN-EN 60751

Sensor classes	Range of application [°C]	Formula for calculating acceptable deviations [°C]
AA	0÷150	T = ±(0,10 + 0,0017 |t|)
A	-30÷300	T = ±(0,15 + 0,002 |t|)
B	-50÷500	T = ±(0,3 + 0,005 |t|)

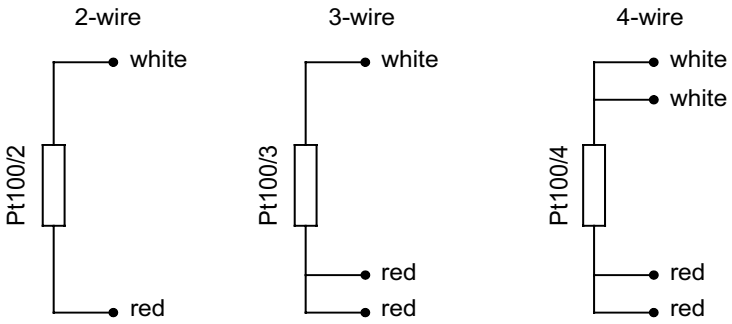
|t|- absolute value of temperature

Measurement circuit

1 x Pt100			2 x Pt100			1 x TC	2 x TC
2-wire	3-wire	4-wire	2-wire	3-wire	4-wire	2-wire	2-wire
✓	✓	✓	x	x	x	x	x

Connection schemes

Pt100 (thermometric resistor)



Product code

		Sensing element resistor	
1		**OP**	resistor Pt
		ON	resistor Ni
		Sensing element	
		Pt100	Pt100
2			other parameters acc. to requirements
		Accuracy	
3		**A or B**	for measuring resistor Pt

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		Measurement circuit	
		2	2 - wire
		3	3 - wire
4		**4**	4 - wire
		Lead wire length	
		0,5	0,5 m
5			other parameters acc. to requirements

1			2		3		4		5
T		**E-89**	–		–		–		–	

Ordering example: **TOPE–89–Pt100–B–2–0,5 m** sensor with Pt100, class B, 2-wire connection, lead wire length L_p=0,5m