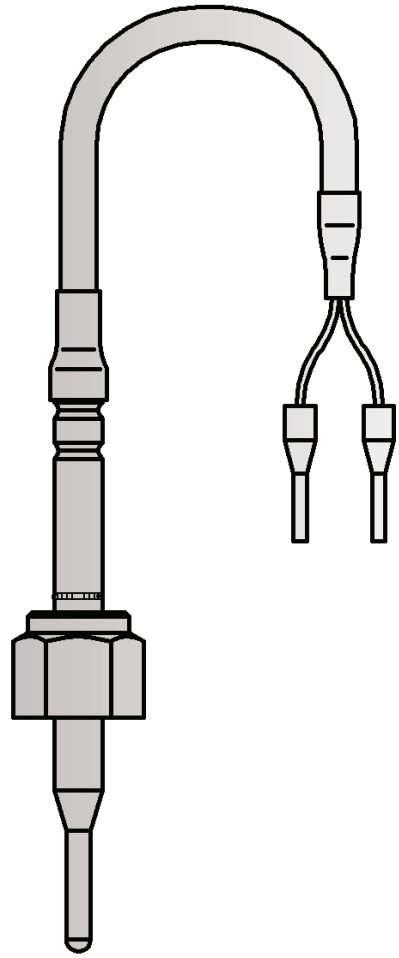
limatherm SENSOR

Temperature Sensors for Measurement of Machinery and Device Parts
TOPE-408

AP 108

Sensor suitable for temperature measurement in district heating substations. Applicable also for temperature measurement of liquid and gaseous media in high pressure conditions. Sensor consists of resistor placed in the thin-walled acid-resistant sheath connected to flexible lead wire and rotary nut.



Specification

Temperature range / sensing element

-50÷250°C **Pt100** class B

Sheath

– material: steel 1.4541
– diameter [mm]: 3,6
– length [mm]: 38
– thread: G⅛

Lead wire

– stranded Cu wire 2x0,22mm^2 or 4x0,22mm^2
– with double silicone insulation
– length L_p [m]: 1,5 (standard)
– Cu wire resistance~0,14 Ω/m = ~0,36°C

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.

Non-standard design

Immersion length, diameter and material of the sheath, and measuring insert parameters can be customized per client request.

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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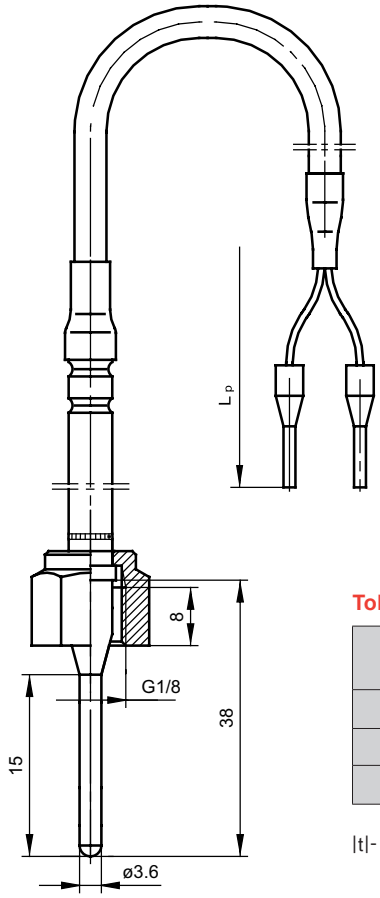


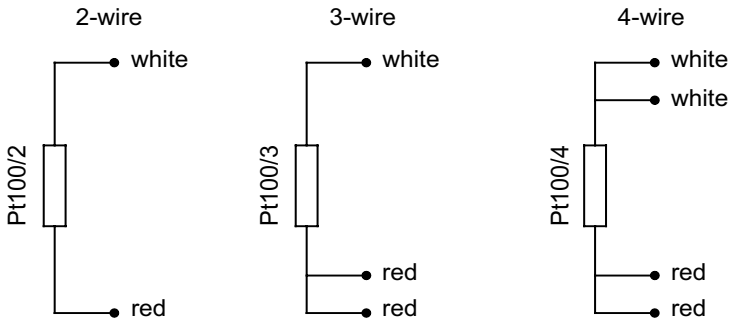
Tolerance for classes of sensors with resistors Pt acc. to PN-EN 60751

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

Connection schemes

Pt100 (thermometric resistor)



Product code

		Resistor type	
1		**Pt100**	Pt100/Pt500/Pt1000
			other parameters acc. to requirements
		Accuracy	
2		**A or B**	for measuring resistor

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		Measurement circuit	
		2	2 - wire
		3	3 - wire
3		**4**	4 - wire
		Dimension of process connection thread	
		G⅛	pipe thread (inch) G⅛
4			other parameters acc. to requirements
		Lead wire length	
		1,5	1,5m
5			other parameters acc. to requirements

		1		2		3		4		5
TOPE-408	–		–		–		–		–	

Ordering example: **TOPE-408–Pt100–A–3–G¼–1,5 m** sensor with Pt100, class A, 3-wire connection, lead wire with silicone insulation, length L_p=1,5 m, nut G¼