



AP 108

Temperature sensor suitable for measurement of outside temperature, both in places exposed to sun and not, mainly in air-conditioning and automation systems of district heating substations. Resistor is placed in a plastic housing. Optionally, sensor can be equipped with transmitter converting measured value to 4÷20mA current.

Specification

Temperature range / sensing element

-40÷85°C **Pt100** class B

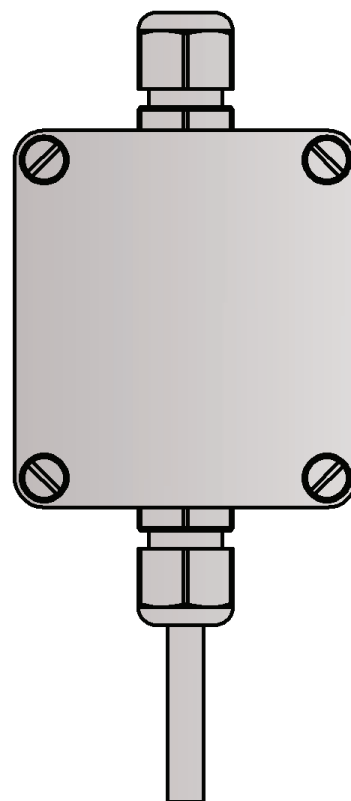
Sheath

- material: steel 1.4541
- diameter [mm]: 6
- closed-end sheath

Housing

- material: polycarbonate, IP67

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 mounted in a housing, in place of a terminal strip, or in the control cabinet.

Non-standard design

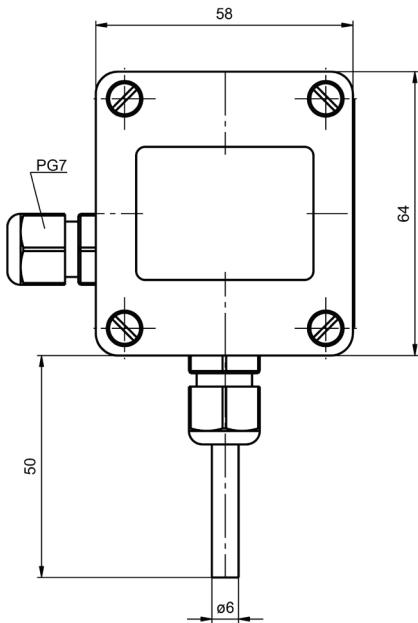
RTD parameters can be customized per client request.

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

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	$T = \pm(0,10 + 0,0017 t)$
A	-30÷300	$T = \pm(0,15 + 0,002 t)$
B	-50÷500	$T = \pm(0,3 + 0,005 t)$

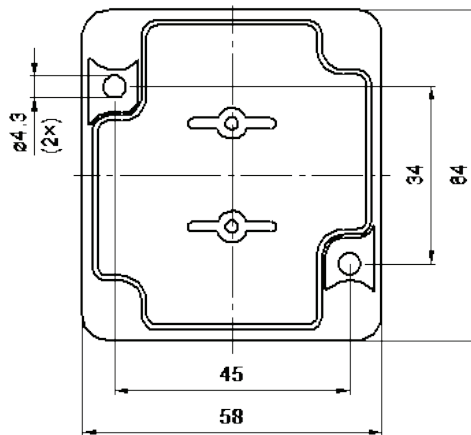
|t| - absolute value of temperature



Measurement circuit

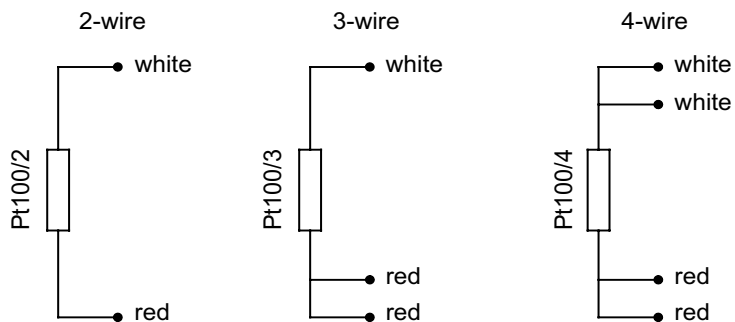
1 x Pt100			2 x Pt100			1 x TC	2 x TC
2-wire	3-wire	4-wire	2-wire	3-wire	4-wire	2-wire	2-wire
✓	✓	✓	x	x	x	✓	x

Installation type

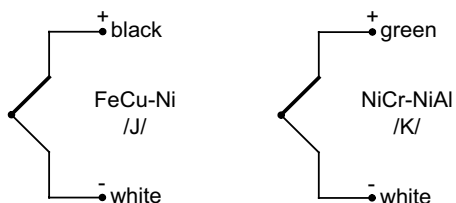


Connection schemes

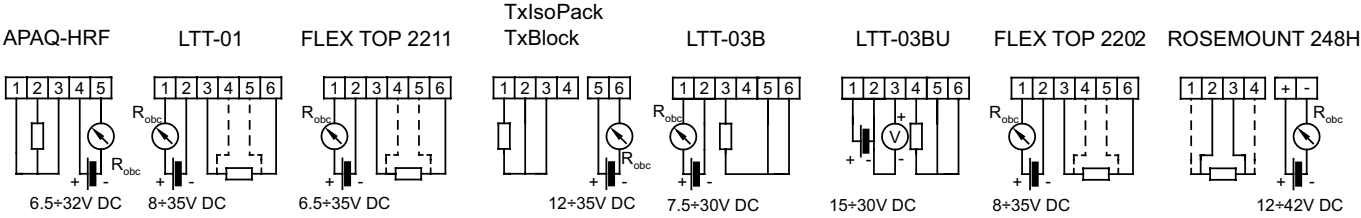
Pt100 (thermometric resistor)



TC (thermocouple)



Transmitters (only Pt)



Product code

Sensor version	
1	AP with transmitter
	no designation single
Resistor type	
2	P resistor Pt
	N resistor Ni
Resistor type	
3	Pt100 Pt100
	other parameters acc. to requirements
Accuracy	
4	A or B for resistor Pt
Measurement circuit	
5	2 2 - wire
	3 3 - wire
	4 4 - wire
Transmitter type (optionally)	
6	TxBlock head mounted transmitter TxBlock
	other parameters acc. to requirements
Temperature range of transmitter	
7	(0÷100°C) transmitter configured for temperature range 0÷100°C
	other parameters acc. to requirements

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2

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TO

Z-850

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Ordering example: **APT0PZ-850-Pt100-A-3-LTT03B-(0÷50)°C** RTD sensor with Pt100, class A, 3-wire connection, with transmitter LTT-03B (output signal 4÷20mA)