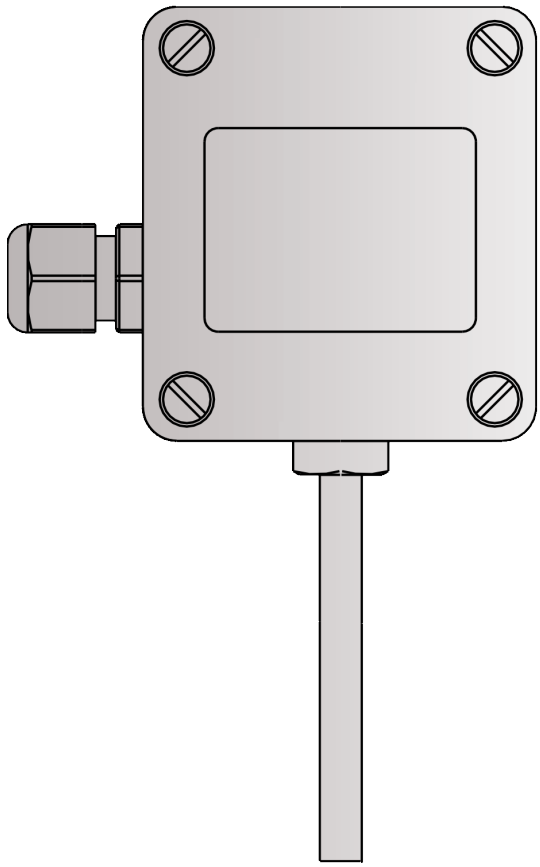
limatherm SENSOR

Temperature Sensors for Air-conditioning and Ventilation System
TOPK-851, TONK-851

AP 108

Temperature sensor suitable for measurement of air or gas flowing in ventilation channels, applied mainly for ventilation and air-conditioning systems. Resistor placed in perforated light alloy sheath, joined to connection box made of anti-static material. Optionally, sensor can be equipped with transmitter converting measured value to 4÷20mA current.



Specification

Temperature range / sensing element

-40÷85ºC **Pt100** class B

Sheath

– material: steel 1.4541
– diameter [mm]: 6
– length L[mm]: 50÷1000
– perforated sheath - P, closed-end sheath - Z

Housing

– material: polycarbonate, IP67
– humidity: max. 85% RH

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

Immersion length and other 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.

Limatherm Sensor Sp. z o.o. Limanowa, tel. 18 337 99 19, fax 18 337 99 10, e-mail: export@limathermsensor.pl, www.limathermsensor.pl

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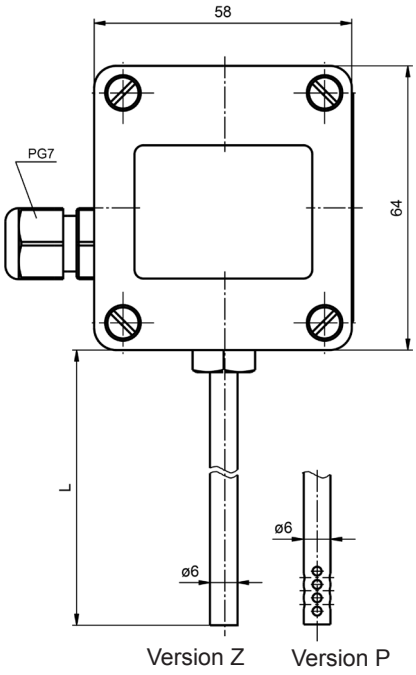


Tolerance for classes of sensors with resistors Pt acc. to PN-EN 60751

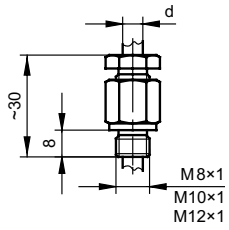
Sensor classes	Range of application [°C]	Formula for calculating acceptable deviations [°C]
AA	0÷150	T = ±(0,10 + 0,0017 |t|)
A	-30÷300	T = ±(0,15 + 0,002 |t|)
B	-50÷500	T = ±(0,3 + 0,005 |t|)

|t|- absolute value of temperature

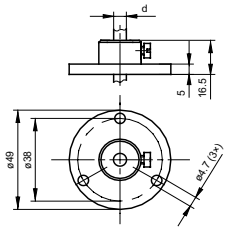
Measurement circuit

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

Mounting fittings



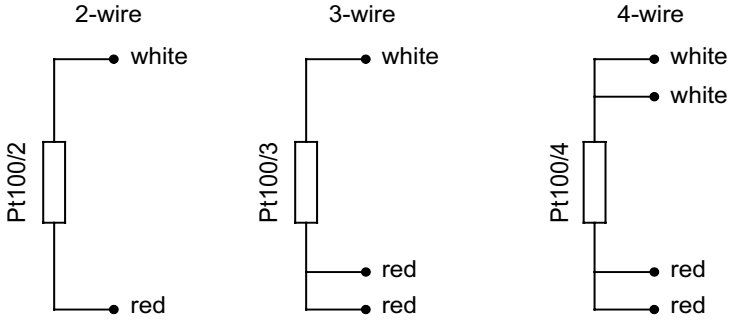
UG-3



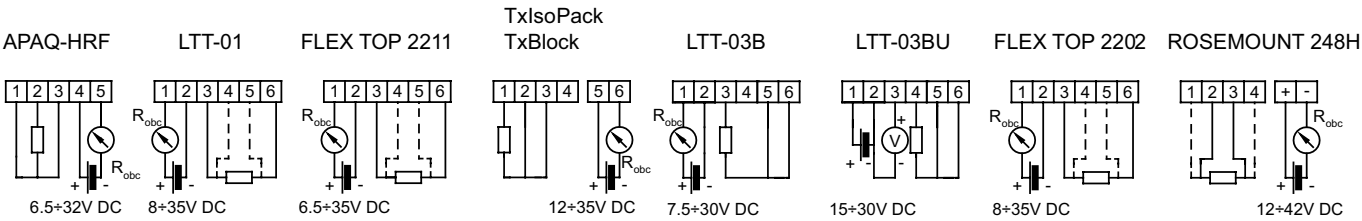
UZK-1

Connection schemes

Pt100 (thermometric resistor)



Transmitters (only Pt)



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Product code

		Sensor version	
1		**no designation**	with terminal block
		AP	with transmitter
		Resistor type	
2		**P**	resistor Pt
		N	resistor Ni
		Sheath type	
3		**P**	perforated
		Z	closed-end
		Resistor type	
4		**Pt100**	Pt100
			other parameters acc. to requirements
		Sheath length	
		100	100mm
		200	200mm
5			other parameters acc. to requirements
		Accuracy	
6		**A or B**	for resistor Pt
		Measurement circuit	
		2	2 - wire
		3	3 - wire
7		**4**	4 - wire
		Transmitter type (optionally)	
		Tx	TxBlock transmitter
8			other parameters acc. to requirements
		Temperature range of transmitter	
		(0÷100ºC)	transmitter configured for temperature range 0÷100ºC
9			other parameters acc. to requirements

1	2			3	4	5	6	7	8	9
	TO		K-849	–	–	–	–	–	–	–

Ordering example:

TOPK-849P–Pt100–50–A–4 RTD sensor with Pt100 for measurement in ventilation channels, class A, 4-wire connection, perforated sheath