



Temperature sensor with special sanitary flange connection Clamp type suitable for measurement in food and pharmaceutical industry. It has National Institute of Hygiene (PZH) attestation.

Specification

Temperature range / sensing element

-40÷200°C Pt100 class B

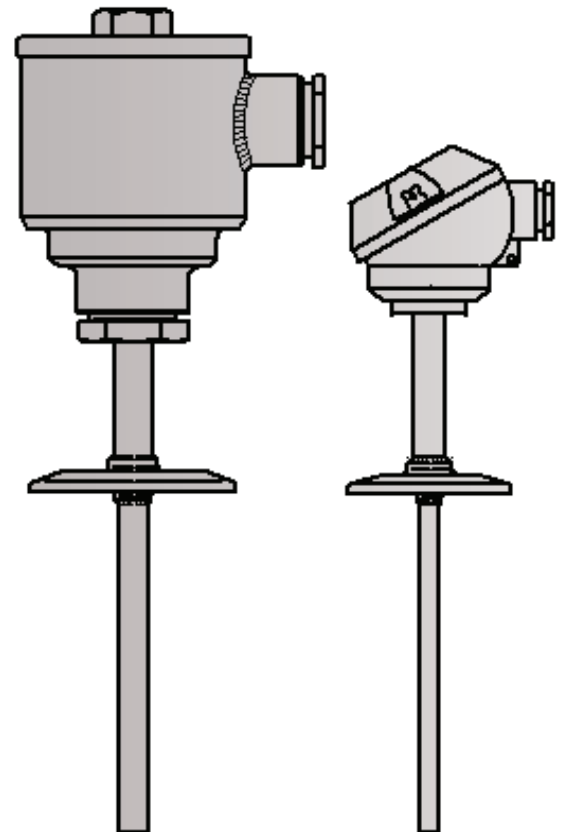
Thermowell

- material: steel 1.4541
- process connection flange Clamp acc. to PN-ISO 2852

Process connection	Connection head type	diameter	
		D	d
1"	MBEG, MA	10	6
1½"	MBEG, MA	10	8
2"	BEG, B	12	9
3"	BEG, B	12	11

Connection head

- MAA, BA; aluminium alloy IP 54 -40÷100°C
- MBEG, BEG - stainless steel, IP65 -40÷100°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 mounted in the connection head. Transmitter installation is carried out in place of a terminal block.

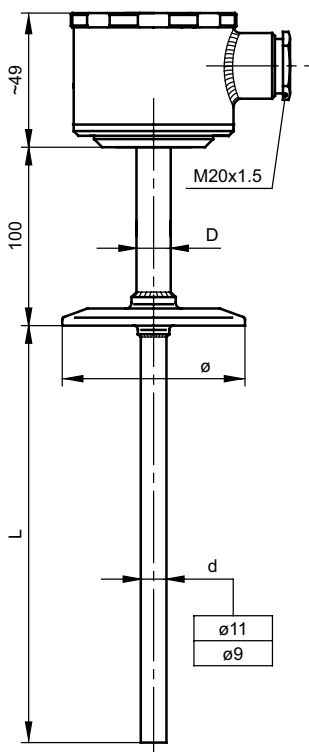
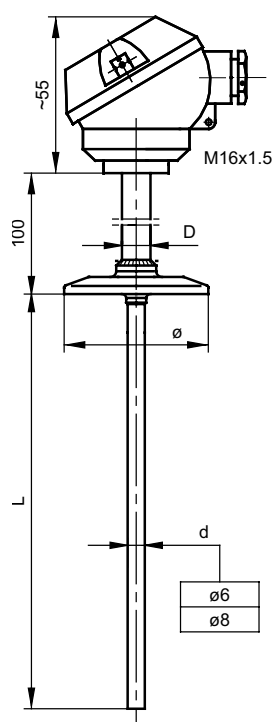
Local display application

The temperature sensor can be equipped with the connection head enabling the local LED display installation. The local display operates in current loop 4÷20mA. This version makes the local temperature reading and transmission of the analogue signal possible.

Non-standard design

Immersion length, process connection thread, shape and material of the thermowell, connection head type and the 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.



Standard length

Immersion length L [mm]
100
150
250
400

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	-50÷250	$T = \pm(0,10 + 0,0017 t)$
A	-100÷450	$T = \pm(0,15 + 0,002 t)$
B	-196÷600	$T = \pm(0,3 + 0,005 t)$

|t| - absolute value of temperature

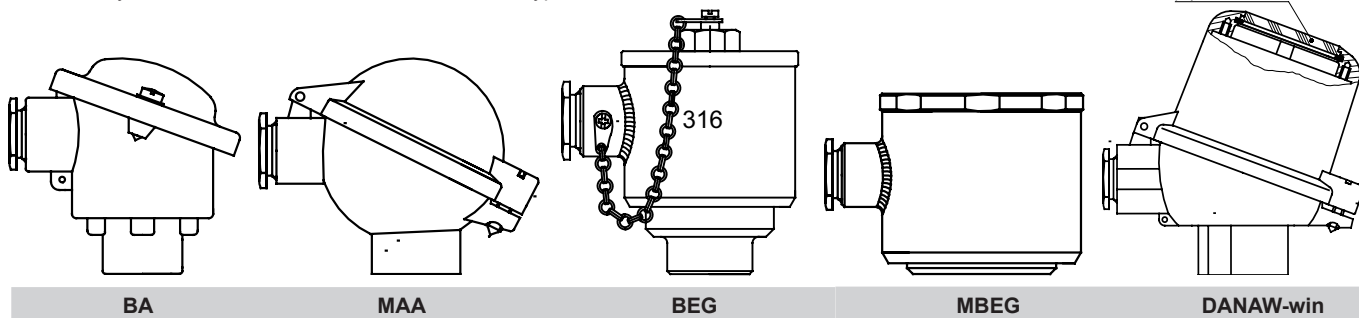
Measurement circuit

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

Connection head types

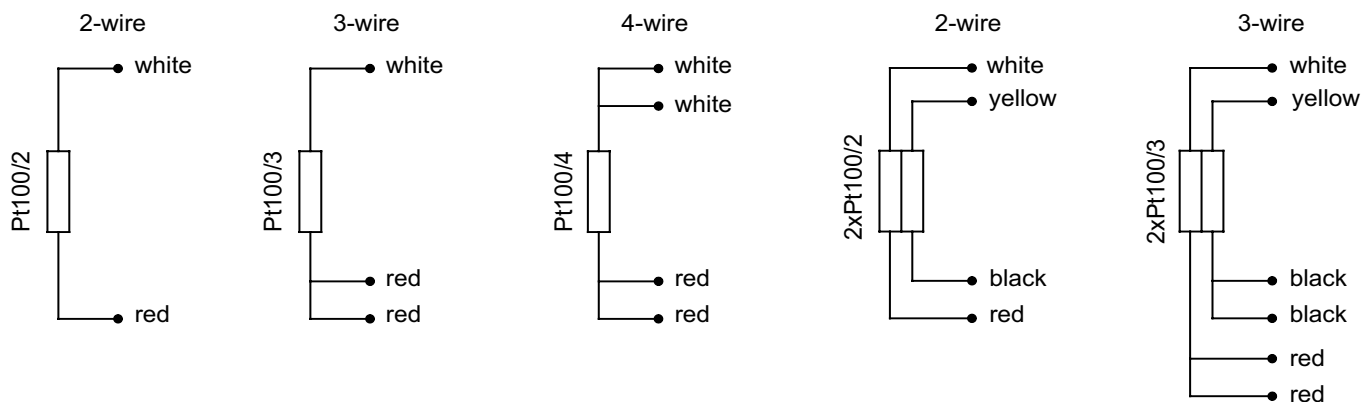
Connection head type BA in standard.

Possibility to mount the connection head of different type.



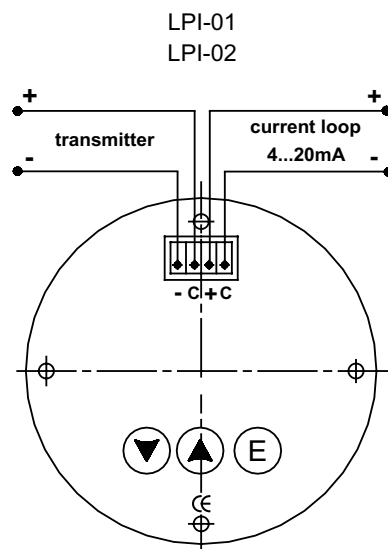
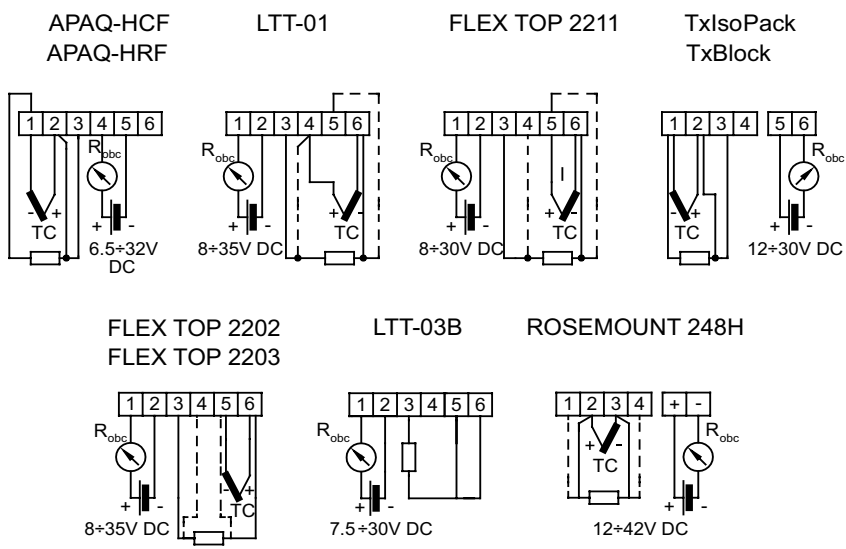
Connection schemes

Pt100 (thermometric resistor)



Transmitters

Local LED display



Product code

		Sensor version	
1	<input type="text"/>	no designation	single with pipe insert
		2	double with pipe insert
		AP	with transmitter
		Process connection dimension	
2	<input type="text"/>	1	flange ø50,5mm
		1½	flange ø50,5mm
		2	flange ø64mm
		3	flange ø91mm
		Connection head type	
3	<input type="text"/>	MAA	MAA
		BA	BA
		MBEG	MBEG
		BEG	BEG

		Sheath length
	100	100mm
	150	150mm
	250	250mm
	400	400mm
4	<input style="width: 50px; height: 20px;" type="text"/>	other parameters acc. to requirements
		Sheath diameter
	6	ø6mm
	8	ø8mm
	9	ø9mm
	11	ø11mm
5	<input style="width: 50px; height: 20px;" type="text"/>	other parameters acc. to requirements
		Resistor type
	Pt100	Pt100
6	<input style="width: 50px; height: 20px;" type="text"/>	other parameters acc. to requirements
		Accuracy
	A or B	for measuring resistor
	1 or 2	for thermocouple
7	<input style="width: 50px; height: 20px;" type="text"/>	
		Measurement circuit (for resistor)
	2	2 - wire
	3	3 - wire
8	<input style="width: 50px; height: 20px;" type="text"/>	4 - wire
		Transmitter type (optionally)
	Tx	head mounted transmitter TxBlock
9	<input style="width: 50px; height: 20px;" type="text"/>	other parameters acc. to requirements
		Temperature range
	40÷100	lower temperature ÷ upper temperature
10	<input style="width: 50px; height: 20px;" type="text"/>	other parameters acc. to requirements

1 2 3 4 5 6 7 8 9 10
 TOPT-287 - - - - - - - - - -

Ordering example: **TOPT-287-2-BA-300-9-Pt100-A-3** RTD sensor with Pt100, class A, 3-wire connection, sheath length L=300 mm, sheath diameter 9 mm, connection head type BA and flange clamp 2"