



temperature sensors
brief product catalogue



head sensors



Temperature sensor with replaceable measuring insert TOPGN-11, TTKGN-11, TTJGN-11

- temperature range up to 550°C
- sensing element: Pt100, Pt500, Pt1000, J, K
- acid resistant steel thermowell: 1.4541
- process connection: M20x1,5; G1/2"
- connection head type BA (IP55)
- Exi or Exd version possible
- measuring insert length $L_w=L+155$ mm
- thermowell length: 50÷2000 mm
- thermowell standard diameter: Ø9, Ø11 mm



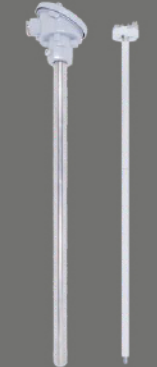
Temperature sensor with replaceable measuring insert TOPGB-11, TTKGB-11, TTJGB-11

- temperature range up to 150°C
- sensing element: Pt100, Pt500, Pt1000, J, K
- acid resistant steel thermowell: 1.4541
- process connection: M20x1,5; G1/2"
- connection head type BA (IP55)
- Exi or Exd version possible
- measuring insert length $L_w=L+43$ mm
- thermowell length: 50÷2000 mm
- thermowell standard diameter: Ø9 mm



Temperature sensor with replaceable measuring insert TOPP-11, TTKP-11, TTJP-11

- temperature range up to 900°C
- sensing element: Pt100, Pt500, Pt1000, J, K
- steel thermowell: 1.4541, 1.4841, 1.4762
- connection head type BA (IP55)
- Exi or Exd version possible
- measuring insert length $L_w=L+25$ mm
- thermowell length: 50÷2000 mm
- thermowell standard diameter: Ø9, Ø12, Ø15 mm



Temperature sensor with replaceable measuring insert TTKU-11, TTJU-11

- temperature range up to 1200°C
- sensing element: J, K
- heat resistant steel thermowell: 15Cr25T, 1.4841, 1.4762
- connection head type AA (IP53)
- measuring insert length $L_w=L+35$ mm
- thermowell length: 300÷3000 mm
- thermowell standard diameter: Ø22 mm



Temperature sensor with non-replaceable measuring insert TOPI 6/8, TTKI-6/8, TTJI-6/8

- temperature range up to 700°C
- sensing element: Pt100, Pt500, Pt1000, J, K
- acid resistant steel sheath: 1.4541
- connection head type BA (IP55)
- Exi or Exd version possible
- sheath length: 300÷2000 mm
- sheath standard diameter: Ø6, Ø8 mm



Temperature sensor with non-replaceable measuring insert TOPI-3, TTKI-3, TTJI-3

- temperature range up to 700°C
- sensing element: Pt100, Pt500, Pt1000, J, K
- acid resistant steel sheath: 1.4541
- connection head type MA (IP54)
- sheath length: 300÷2000 mm
- sheath standard diameter: Ø6, Ø8 mm



Temperature sensor with ceramic protection tube TTSC-22, TTRC-22, TTKC-22, TTBC-22

- temperature range up to 1800°C
- sensing element: S, R, K, B
- ceramic protection tube: MULLITE 610 or CORUNDUM 799
- holding tube: steel 1.4841
- connection head type AA (IP53)
- Exi version possible
- protection tube length: 300÷2000 mm
- protection tube standard diameter: Ø15 mm



Temperature sensor with ceramic protection tube TTSCU-22, TTRCU-22, TTKCU-22

- temperature range up to 1200°C
- sensing element: S, R, K
- heat resistant steel outer tube: 15Cr25T, 1.4841, 1.4762
- ceramic tube: MULLITE 610
- connection head type AA (IP53)
- protection tube length: 300÷2000 mm
- ceramic tube standard diameter: Ø22 mm

cable sensors



Temperature sensor for measurement of machinery and device parts TTJE-11/13, TTKE-11/13

- temperature range up to 400°C
- sensing element: J, K
- sheath material: nickel-plated brass
- fiberglass insulated wire with steel braid
- process connection: M12x1; M14x1,5
- sheath length: 10 mm
- sheath standard diameter: Ø6 mm



Temperature sensor for measurement of machinery and device parts TOPE-26/28, TTJE-26/28, TTKE-26/28

- temperature range up to 400°C
- sensing element: Pt100, Pt500, Pt1000, J, K
- acid resistant sheath: 1.4541
- fiberglass insulated wire with steel braid
- process connection: M12x1; M14x1,5
- sheath length: 0÷100 mm
- sheath standard diameter: Ø6, Ø8 mm



Temperature sensor for measurement of machinery and device parts TOPE-361/362, TTJE-361/362, TTKE-361/362

- temperature range up to 400°C
- sensing element: Pt100, Pt500, Pt1000, J, K
- acid resistant steel sheath: 1.4541
- sheath diameter Ø3, Ø4, Ø5, Ø6, Ø8 mm
- fiberglass insulated wire with steel braid
- Exi version possible
- sheath length: 30÷500 mm
- sheath standard diameter: Ø4, Ø6 mm



Temperature sensor for measurement of machinery and device parts TOPG-M12

- temperature range up to 250°C
- sensing element: Pt100
- acid resistant steel sheath: 1.4541
- sheath with thread coupling: M20x1,5; G1/2"
- screwed plug M12-4 pin
- sheath length: 50÷1000 mm
- sheath standard diameter: Ø6 mm



Temperature sensor for surface measurement TTJE-86/87, TTKE-86/87

- temperature range up to 400°C
- sensing element: J, K
- eyelet tip (type 86) for screw
- square tip (type 87)
- fiberglass insulated wire with steel braid



Temperature sensor for surface measurement TOPE-244, TTJE-244, TTKE-244

- temperature range up to 400°C
- sensing element: Pt100, Pt500, Pt1000, J, K
- sheath material: nickel-plated brass
- band clamp for mounting on a pipeline DN 15-200 mm
- fiberglass insulated wire with steel braid
- Exi version possible



mineral insulated sensors



Mineral insulated sensor PTOP, PTTJ, PTTK, PTTN, XLPTTK, XLPTTJ

- temperature range up to 1335°C
- sensing element: Pt100, J, K, N
- sheath material: INCONEL 600, OMEGAFLAND XL, steel 1.4571
- sheath diameter: Ø1; Ø1,5; Ø2; Ø3; Ø4,5; Ø6; Ø8 mm
- high resistance to harsh conditions
- various design versions
- sheath length: any
- sheath standard diameter: Ø6 mm



Mineral insulated sensor PTR-1, PTR-2, PTR-3

- temperature range up to 1200°C
- sensing element: Pt100, J, K
- sheath material: INCONEL 600, steel 1.4571
- sheath diameter: Ø3, Ø6 mm
- PVC handgrip
- wire with double silicone insulation
- sheath length: 50÷1000 mm
- sheath standard diameter: Ø6 mm

sensors for HVAC application



Sensor for HVAC application TOPO-833

- temperature range up to 60°C
- sensing element: Pt100, Pt500, Pt1000
- sensing element inside perforated enclosure
- enclosure material ABS (IP20)
- wall mounted



Sensor for HVAC application TOPZ-850

- temperature range up to 85°C
- sensing element: Pt100, Pt500, Pt1000
- acid resistant steel sheath: 1.4541
- polycarbonate enclosure (IP67)
- outside mounted
- sheath length: 50÷500 mm
- sensor standard diameter: Ø6 mm

sensors for heat meters and heating systems



Sensor for heat meters and heating systems TOP-172

- temperature range up to 180°C
- sensing element: Pt100, Pt500
- Central Office of Measures (GUM) approval for sensor pair
- additional acid resistant steel thermowell: 1.4541
- wire with double silicone insulation
- sheath length: 48 mm
- sheath standard diameter: Ø5, Ø8 mm



Sensor for heat meters and heating systems TOP-226

- temperature range up to 180°C
- sensing element: Pt100, Pt500, Pt1000
- Central Office of Measures (GUM) approval for sensor pair
- acid resistant steel thermowell: 1.4541
- straight or stepped thermowell
- thermowell length: 70÷700 mm
- thermowell standard diameter: Ø6 mm

sensors for food industry



**Sensor for food industry
TOPE-413**

- temperature range up to 200°C
- sensing element: Pt100
- acid resistant steel sheath: 1.4541
- pointed measuring tip
- steel or teflon handgrip
- National Institute of Hygiene (PZH) attestation
- sheath length: 50÷1000 mm
- sheath standard diameter: Ø4, Ø6 mm



**Sensor for food industry
TOPGNS, TTJGNS, TTKGNS**

- temperature range up to 400°C
- sensing element: Pt100, J, K
- acid resistant steel thermowell: 1.4541
- process connection: M12x1,5; M10x1
- stainless steel connection head: 1.4541
- National Institute of Hygiene (PZH) attestation
- thermowell length: 30÷1000 mm
- thermowell standard diameter: Ø6, Ø8 mm

sensors for aggressive environments



**Sensor for aggressive environments
TTJC-38, TTKC-38**

- temperature range up to 1200°C
- sensing element: J, K
- sheath material: SILIT SK
- mounting assembly and extension pipe: steel 1,4541
- connection head type BA (IP54)
- sensor sheath length: 300, 500, 700, 900, 1100 mm
- sensor standard diameter: Ø25 mm



**Sensor for aggressive environments
TOPSZ-157, TOPSE-157**

- temperature range up to 180°C
- sensing element: Pt100
- sheath material: SIMAX glass
- version with connection head or cable
- connection head type NS (IP54)
- wire with double teflon insulation
- sensor sheath length: 300÷700 mm
- sensor standard diameter: Ø10, Ø15 mm

accessories for temperature sensors



**Temperature transmitter
TxBlock, TxRail**

- universal transmitter with 4...20 mA or 0...10 V (TxRail) output
- head mounted (TxBlock) or 35 mm rail mounted (TxRail)
- sensor error correction
- configuration with a PC via TxConfig interface



**Temperature transmitter
TxIsoPack**

- universal transmitter with 4...20 mA output
- configuration with miniUSB cable directly from a PC
- mounted in connection head type BA
- galvanic insulation between input and output
- free configuration software



Protection tubes and thermowells

- tubes for high pressures
- heat resistant and creep resistant steel tubes
- ceramic and special tubes
- threaded tubes or suitable for welding
- mounting connectors



Additional accessories

- compression fittings, flanged fittings and mounting brackets
- connection heads
- compensation and thermocouple cables
- indicators
- plugs and sockets

Control and measuring equipment



Pressure measurement

- manometers
- pressure transmitters
- pressure calibrators



Process control

- temperature controllers
- electronic thermostats
- indicators with switch on/off function



Contactless measurement

- stationary pyrometers
- portable pyrometers



Calibration

- temperature calibrators
- calibration furnaces
- electrical voltage and current calibrators



Electric heating

- cartridge heaters
- band heaters
- tubular heaters



Recording

- stationary recorders
- portable recorders



Humidity measurement

- humidity transmitters
- humidity meters



Portable meters

- clamp meters
- multimeters
- earth ground meters

About company

Limatherm Sensor Sp. z o.o. is a leading producer of different temperature sensors: from simple cable sensors through head sensors to mineral insulated and special designs suitable for demanding applications. The entire sensor production process is carried out in our company.

In order to meet our current and future customer requirements we obtain all necessary attestations and comply, at the same time, with requirements of national and international standards. The quality of our final products is our pride.

Laboratory

Limatherm Sensor **Laboratory for Temperature Measurements** provides services of the highest quality which comply fully with our customer requirements.

Laboratory possesses the **Certificate of Accredited Laboratory AP 108** issued by Polish Centre for Accreditation which confirms compliance with PN-EN ISO/IEC 17025 standard. Laboratory performs calibration services of temperature sensors, electrical thermometers, temperature transmitters, temperature calibrators and thermometers.



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