

# TEMPERATURE SENSOR THST



#### DESCRIPTION:

- sensor Pt100, Pt500, Pt1000, Ni1000, KTY, NR
- high accuracy, low power consumption, wide working range of surrounding temperature
- integrated construction, easy to install

#### APPLICATION:

- chemical industry
- heating industry
- power engineering
- pharmacy

#### TECHNICAL PARAMETERS:

- heat range: up to 500 °C according to used sensor
- connection thread: G1/2 (G1/4, G3/4, M12x1,5, M20x1,5, M27x2, NPT) or on individual request

#### SPECIFICATION:

Compact temperature sensor suitable for direct mounting or mounting to thermowell. Temperature sensors according to standard 1/1 DIN B, 1/3 DIN B or 1/6 DIN B.

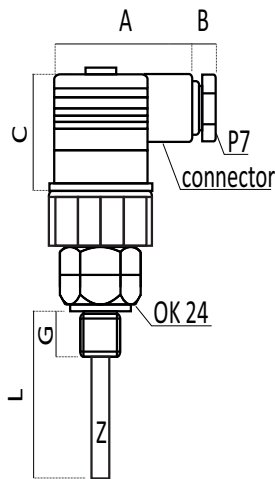
Sensors are suitable for wide range of applications in industry, food processing, air-conditioning systems, heating etc. (sensors for air temperature are used without thermowells due to quick response receiving).

Integrated sensor changes its inner resistance according to temperature. Main advantage is linear conveyance characteristic in whole range of measured temperatures.

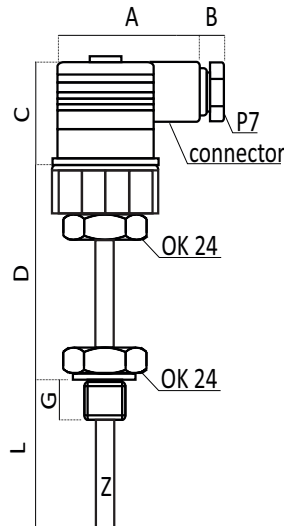
Modular conception is suitable for wide range of applications, it is possible to provide variable connection threads on individual request. Magnesium oxide guarantees high resistance against impacts and vibrations and also improves heat exchange and electrical insulation of sensor.

| Technical parameters |  |                       |  |
|----------------------|--|-----------------------|--|
| Medium               | gas or liquid suitable for contact with stainless steel    | Storage temperature   | -40+80°C   |
| Range                | -50 to 500°C by concrete sensor                            | Working heat range    | -30+80°C individual  |
| Wiring               | 2W, 3W, 4W   | Material              | AISI304, AISI316TI, PTFE foil                                  |
| Submersible length   | 60, 90, 100, 160, 250                                      | Thermal response time | without th.w.-air 45s, water 8s<br>with thermowell - water 35s |
| Extensions           | 0, 30, 100mm   | Protection            | IP 65  |
| Connection thread    | G1/4, G1/2, G3/4, M12x1,5, M20x1,5, M27x2, NPT, individual | Max. overpressure     | without thermowell<br>10MPa/100°C, 3,1MPa/300°C                |
| Connector            | DIN 43650, Mini, Mikro, M14x1                              | Accuracy              | B by ČSN EN 60751  |
| Sensor type          | Pt100, Pt500, Pt1000, Ni1000, KTY, NR                      | Time stability        | 0,05% (10 000 hours)   |

• THST without extension

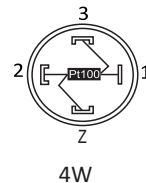
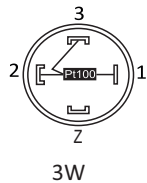
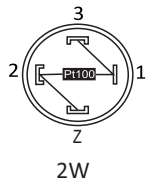


• THST with extension



| Dimensions in mm |     |    |            |    |        |           |
|------------------|-----|----|------------|----|--------|-----------|
| A                | B   | C  | D          | G  | L      | Z         |
| 41               | ~ 5 | 34 | 30 and 100 | 16 | 30-250 | see table |

Wiring diagram



|      |                 |                   |  |  |  |  |  |  |  |
|------|-----------------|-------------------|--|--|--|--|--|--|--|
| THST |                 |                   |  |  |  |  |  |  |  |
|      | Type            |                   |  |  |  |  |  |  |  |
|      | Pt100           |                   |  |  |  |  |  |  |  |
|      | Pt500           |                   |  |  |  |  |  |  |  |
|      | Pt1000          |                   |  |  |  |  |  |  |  |
|      | Ni1000          |                   |  |  |  |  |  |  |  |
|      | KTY             |                   |  |  |  |  |  |  |  |
|      | NR              |                   |  |  |  |  |  |  |  |
|      | Length          |                   |  |  |  |  |  |  |  |
|      | 60              |                   |  |  |  |  |  |  |  |
|      | 90              |                   |  |  |  |  |  |  |  |
|      | 100             |                   |  |  |  |  |  |  |  |
|      | 160             |                   |  |  |  |  |  |  |  |
|      | 250             |                   |  |  |  |  |  |  |  |
|      | Individual      |                   |  |  |  |  |  |  |  |
|      | Outer Ø of stem |                   |  |  |  |  |  |  |  |
|      | 6               |                   |  |  |  |  |  |  |  |
|      | 7               |                   |  |  |  |  |  |  |  |
|      | 8               |                   |  |  |  |  |  |  |  |
|      | 9               |                   |  |  |  |  |  |  |  |
|      | Code            | Connection        |  |  |  |  |  |  |  |
|      | P1              | G1/4              |  |  |  |  |  |  |  |
|      | P2              | G1/2              |  |  |  |  |  |  |  |
|      | P8              | G3/4              |  |  |  |  |  |  |  |
|      | P6              | M12x1,5           |  |  |  |  |  |  |  |
|      | P4              | M20x1,5           |  |  |  |  |  |  |  |
|      | P7              | M27x2             |  |  |  |  |  |  |  |
|      | P5              | NPT               |  |  |  |  |  |  |  |
|      | Pz              | Individual        |  |  |  |  |  |  |  |
|      | Wiring          |                   |  |  |  |  |  |  |  |
|      | 2W              |                   |  |  |  |  |  |  |  |
|      | 3W              |                   |  |  |  |  |  |  |  |
|      | 4W              |                   |  |  |  |  |  |  |  |
|      | Code            | Extension         |  |  |  |  |  |  |  |
|      | -               | Without extension |  |  |  |  |  |  |  |
|      | 30              | 30 mm             |  |  |  |  |  |  |  |
|      | 100             | 100 mm            |  |  |  |  |  |  |  |
|      | Code            | Connector         |  |  |  |  |  |  |  |
|      | E1              | DIN 43650         |  |  |  |  |  |  |  |
|      | E5              | DIN 43650 Mini    |  |  |  |  |  |  |  |
|      | E6              | DIN 43650 Mikro   |  |  |  |  |  |  |  |
|      | E7              | M14x1             |  |  |  |  |  |  |  |
|      | Code            | Material          |  |  |  |  |  |  |  |
|      | M1              | AISI304           |  |  |  |  |  |  |  |
|      | M2              | AISI316Ti         |  |  |  |  |  |  |  |
|      | M3              | PTFE foil coating |  |  |  |  |  |  |  |

|      |       |    |   |    |    |   |    |    |
|------|-------|----|---|----|----|---|----|----|
| THST | Pt100 | 90 | 7 | P2 | 2W | - | E1 | M1 |
|------|-------|----|---|----|----|---|----|----|