



Temperature sensors
Resistance thermometer

THTE-1PAT12006MZ



Model Name > [THTE-1PAT12006MZ](#)
Part No. > [6047621](#)



At a glance

- Pt100, accuracy class A (IEC 60751)
- Measuring ranges -50 °C ... +150 °C and -50 °C ... +250 °C
- Sensor probe spring-loaded in thermowell
- Wetted parts: Corrosion-resistant stainless steel 316L/1.4435, Ra 0.8 µm
- Hygienic process connections
- Pt100 (4-wire) or 4 mA ... 20 mA (2-wire)
- Round connector M12 x 1

Your benefits

- The sensor can be exchanged without opening the process, providing high equipment availability and minimizing hygienic risks
- Safe hygienic operation: Wetted parts are made from high-grade stainless steel, hygienically-graded surface finish, and a gap- and crevice-free design
- Rugged: Connection housing is easily cleaned and splash water proof
- Quick and safe installation
- Very good long-term stability, accuracy and linearity
- Quick response time
- Optimal solutions for individual requirements due to versatile configurability



Features

| | |
|------------------|-------------------|
| Measuring range: | -50 °C ... 150 °C |
| Sensor element: | Pt100 |
| Output signal: | Pt100, 4-wire |

Performance

| | |
|-----------------------------|---|
| Accuracy of sensor element: | Class A according to IEC 60751 |
| Transmitter accuracy: | ≤ ± 0.2 % of span |
| Transmitter linearity: | ≤ ± 0.1 % of span |
| Response time: | Response time t50: ≤ 4.7 s ¹⁾ response time t90: ≤ 12.2 s ¹⁾ |

¹⁾ Depending on sensor configuration, according to IEC 60751

Mechanics/electronics

| | |
|-------------------------------------|--------------------------------|
| Process connection: | Tri-clamp 1", 1 ½" |
| Insertion length/diameter of probe: | 200 mm/6 mm |
| Housing material: | Stainless steel 1.4571 (316Ti) |

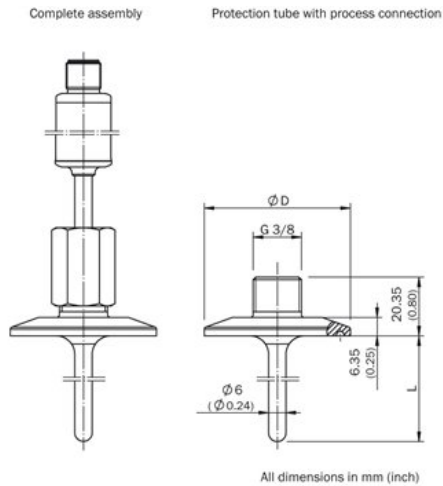
| | |
|--|--|
| Wetted parts: | stainless steel 1.4435 (316L), Ra ≤ 0.8 μm |
| Electrical connection/enclosure rating ¹⁾ : | Round connector M12 x 1, 4-pin/IP 68 and IP 69K |
| Measuring current: | 0.3 mA ... 1 mA |
| Electrical safety: | Dielectric strength: 500 V AC Protection class: III |
| Protection class III: | ✓ |
| Pressure resistance: | Max. 16 bar at room temperature |

¹⁾ Enclosure rating IP per IEC 60529. The enclosure rating classes specified only apply while the pressure transmitter is connected with female connectors that provide the corresponding enclosure rating.

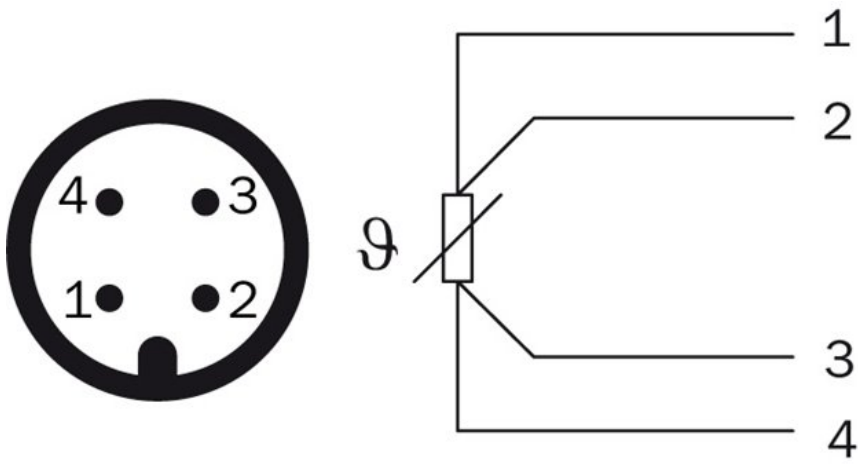
Ambient data

| | |
|--|------------------------|
| Ambient temperature: | -40 °C ... 85 °C |
| Storage and transport temperature: | -40 °C ... 85 °C |
| Vibration resistance according to IEC 60751: | 3 g |
| Shock resistance: | According to IEC 60751 |
| Relative humidity: | ≤ 95 % |

Dimensional drawing process connection



| Design | | Ø D |
|------------------|-------------------|-------------|
| DIN 32676 | DN 10 ... DN 20 | 34.0 (1.34) |
| | DN 25 ... DN 40 | 50.5 (1.99) |
| | DN 50 | 64.0 (2.52) |
| ISO 2852 | DN 12 ... DN 21.3 | 34.0 (1.34) |
| | DN 25 ... DN 38 | 50.5 (1.99) |
| | DN 40, DN 51 | 64.0 (2.52) |
| Tri-Clamp | 1", 1 1/2" | 50.5 (1.99) |
| | 2" | 64.0 (2.52) |



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