



Temperature sensors  
Resistance thermometer

THTS-1PAT10506MZ



**Model Name** > [THTS-1PAT10506MZ](#)  
**Part No.** > [6047588](#)



**At a glance**

- Pt100 element, accuracy class A (IEC 60751)
- Measuring ranges -50 °C ... +150 °C and -50 °C ... +250 °C
- Wetted parts: Corrosion-resistant stainless steel 316L/1.4435, Ra 0.8 µm
- Various hygienic process connections and insertion lengths
- Pt100 (4-wire) or 4 mA ... 20 mA (2-wire)
- Round connector M12 x 1

**Your benefits**

- Convenient system integration – installation in narrow installation space possible through compact dimensions
- Safe, hygienic operation due to wetted parts 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 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: ≤ 3.3 s <sup>1)</sup> response time t90: ≤ 9.7 s

<sup>1)</sup> Depending on sensor configuration, according to IEC 60751

**Mechanics/electronics**

Process connection:	Tri-clamp 1", 1 ½"
Insertion length/diameter of probe:	50 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 <sup>1)</sup>:

Measuring current:

Electrical safety:

Protection class III:

Pressure resistance:

Round connector M12 x 1, 4-pin/IP 68 and IP 69K

0.3 mA ... 1 mA

Dielectric strength: 500 V AC

Protection class: III

✓

max. 16 bar

<sup>1)</sup> 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

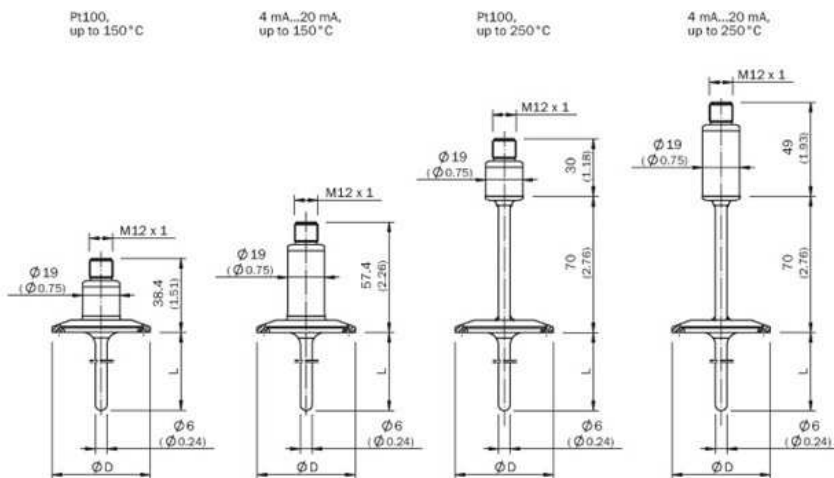
Shock resistance:

According to IEC 60751

Relative humidity:

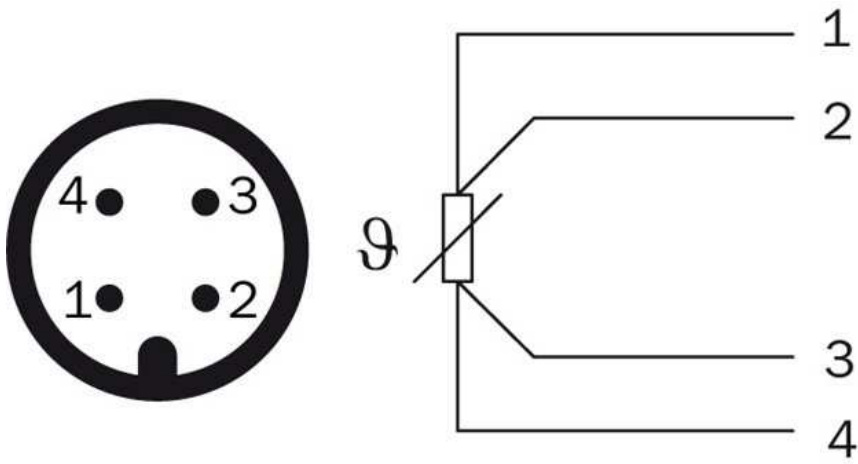
≤ 95 %

### Dimensional drawing process connection



All dimensions in mm (inch)

Design		Ø D
<b>DIN 32676</b>	DN 10 ... DN 20	34.0 (1.34)
	DN 25 ... DN 40	50.5 (1.99)
	DN 50	64.0 (2.52)
<b>ISO 2852</b>	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)
<b>Tri-Clamp</b>	1", 1 1/2"	50.5 (1.99)
	2"	64.0 (2.52)



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