



Temperature sensors Resistance thermometer

THTS-1AAT10506MZ



Model Name > **THTS-1AAT10506MZ**
Part No. > **6047604**



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
Signal output and maximum ohmic load RA:	4 mA ... 20 mA, 2-wire ($RA \leq (L + 10 \text{ V}) / 0.023 \text{ A [Ohm]}$)

Performance

Accuracy of sensor element:	Class A according to IEC 60751
Transmitter accuracy:	$\leq \pm 0.2 \%$ of span
Transmitter linearity:	$\leq \pm 0.1 \%$ of span
Response time:	Response time t_{50} : $\leq 3.3 \text{ s}$ ¹⁾ response time t_{90} : $\leq 9.7 \text{ s}$

¹⁾ 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 $\leq 0.8 \text{ µm}$

Electrical connection/enclosure rating ¹⁾:

Electrical safety:

Supply voltage:

Protection class III:

CE-conformity:

Pressure resistance:

Maximum power consumption:

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

Dielectric strength: 500 V AC

Protection class: III

Reverse polarity protection: L+ towards M

10 V DC ... 35 V DC

✓

2004/108/EC, EN 61326-2-3

max. 16 bar

Ca. 30 mA

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

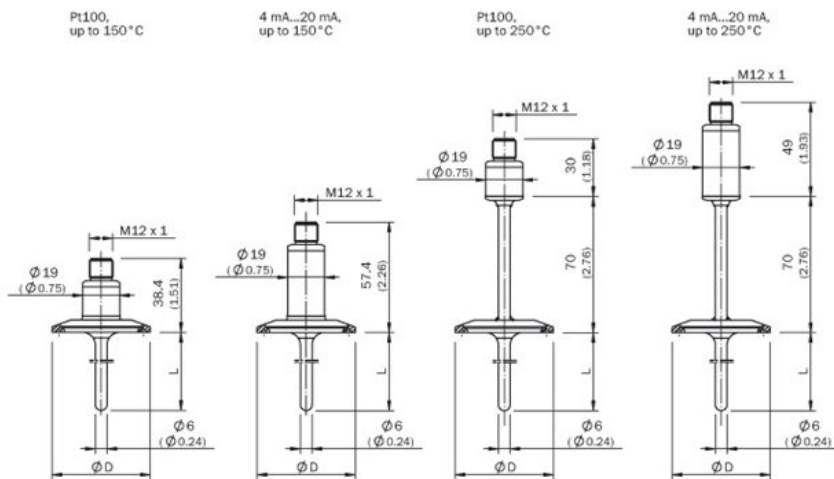
Shock resistance:

According to IEC 60751

Relative humidity:

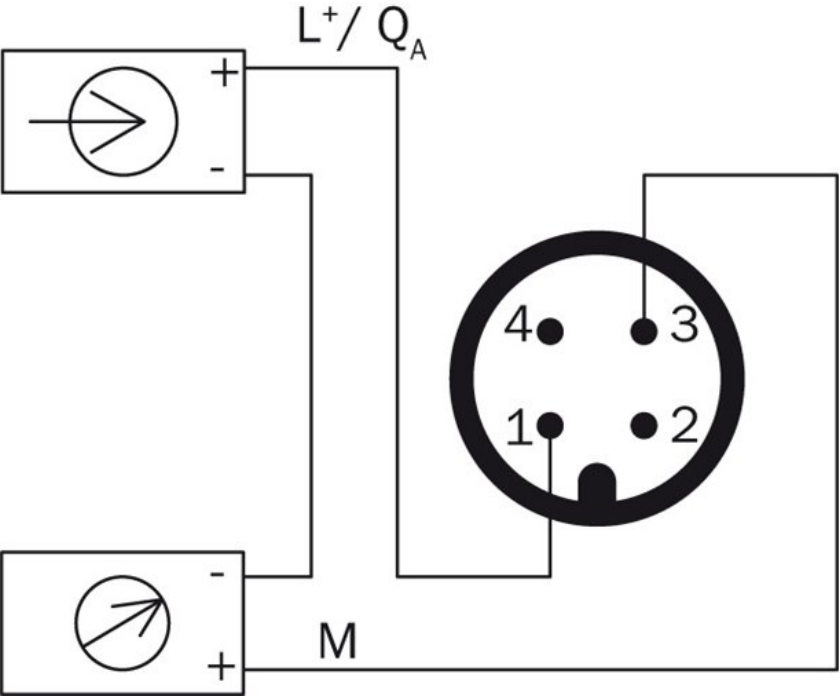
≤ 95 %

Dimensional drawing process connection



All dimensions in mm (inch)

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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