



## Temperature sensors Resistance thermometer

THTS-1AAT10756MZ



**Model Name** > **THTS-1AAT10756MZ**  
**Part No.** > **6047605**



#### 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 $t_{50}$ : $\leq 3.3 \text{ s}_1$<br>response time $t_{90}$ : $\leq 9.7 \text{ s}$ |

<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: | 75 mm/6 mm                                               |
| Housing material:                   | Stainless steel 1.4571 (316Ti)                           |
| Wetted parts:                       | stainless steel 1.4435 (316L), Ra $\leq 0.8 \mu\text{m}$ |

Electrical connection/enclosure rating <sup>1)</sup>:

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

<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

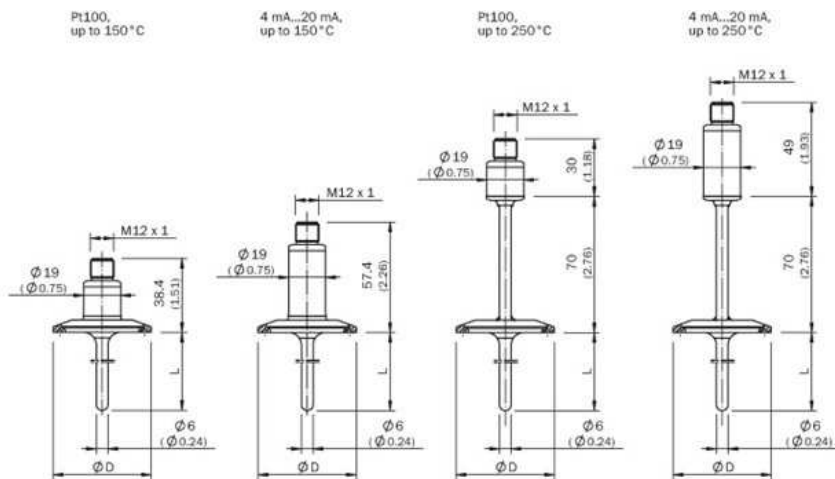
Shock resistance:

According to IEC 60751

Relative humidity:

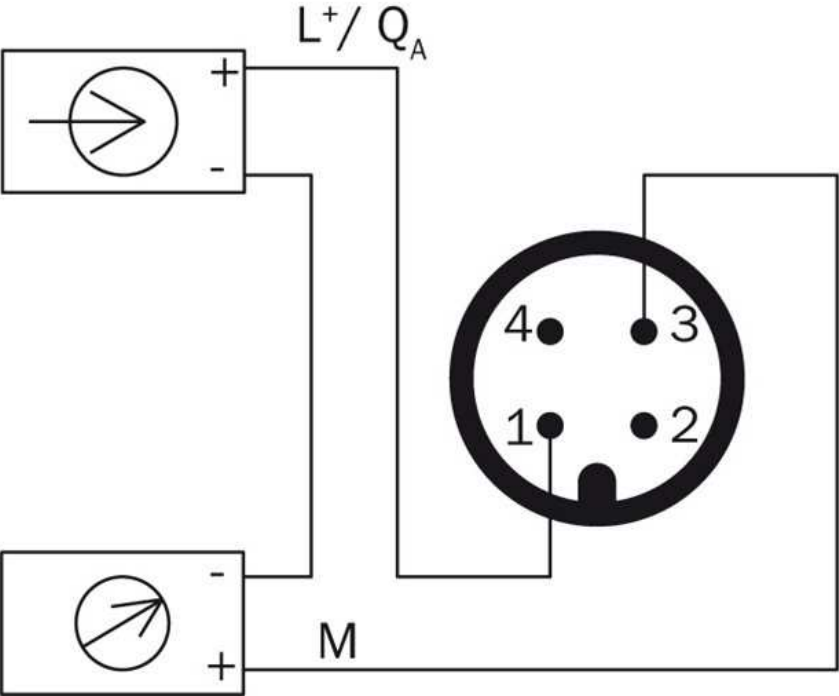
≤ 95 %

## Dimensional drawing process connection



| 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)                |

All dimensions in mm (inch)



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