



## Temperature sensors Resistance thermometer

THTS-1AAT10256MZ



**Model Name** > **THTS-1AAT10256MZ**  
**Part No.** > **6047603**



#### 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 $t_{90}$ : $\leq 9.7 \text{ s}$

<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:	25 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

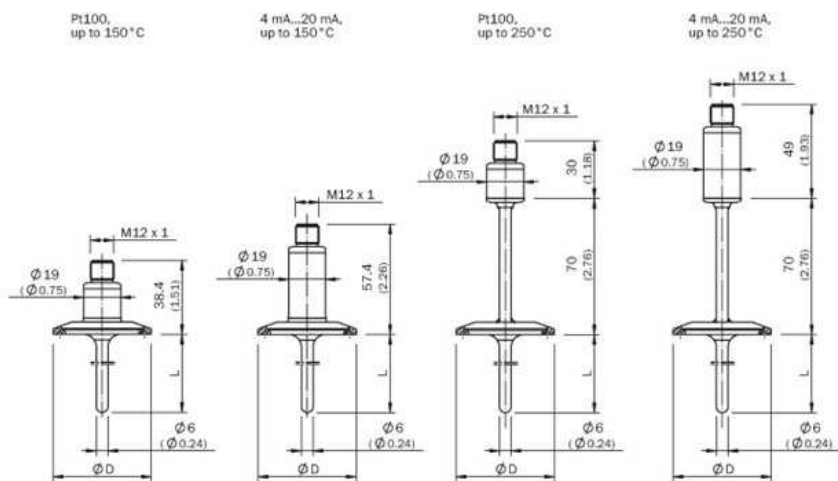
Shock resistance:

According to IEC 60751

Relative humidity:

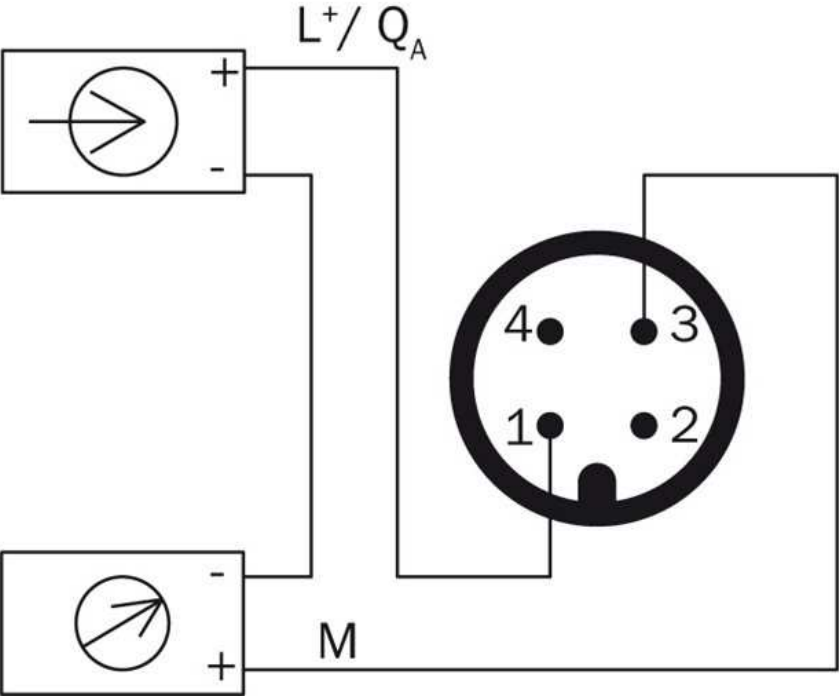
≤ 95 %

## Dimensional drawing process connection



Design	Ø D
<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)

All dimensions in mm (inch)



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