



## Temperature sensors Resistance thermometer

THTS-1AAT11006MZ



**Model Name** > **THTS-1AAT11006MZ**  
**Part No.** > **6047606**



#### 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 $t_{50}$ : $\leq 3.3 \text{ s}$ <sup>1)</sup><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: | 100 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

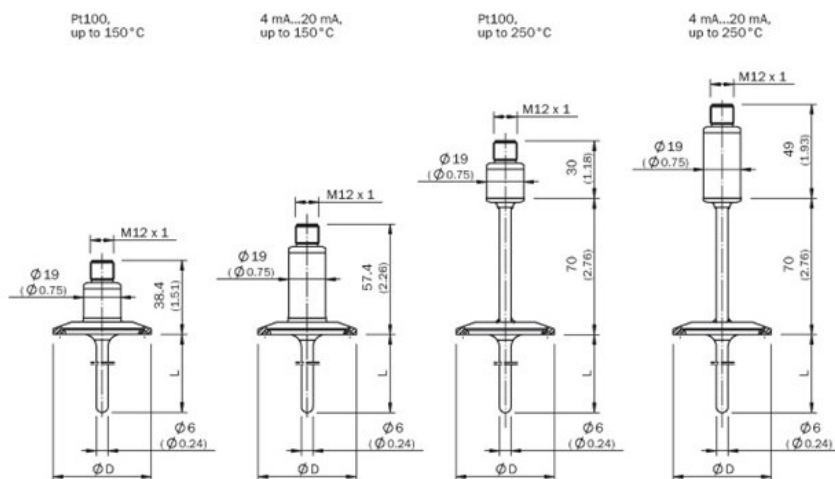
Shock resistance:

According to IEC 60751

Relative humidity:

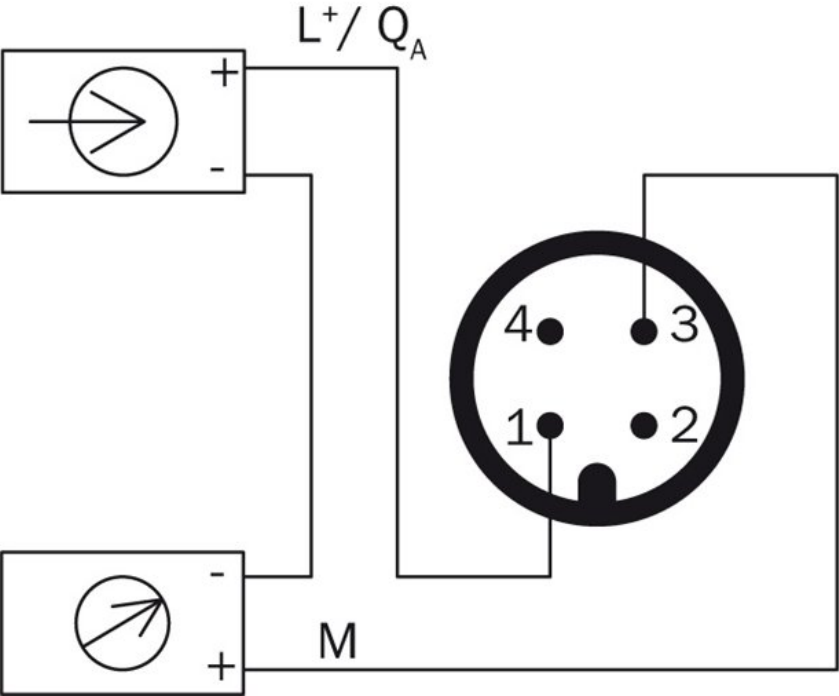
≤ 95 %

## 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)



**Australia**

Phone +61 3 9457 0600  
1800 334 802 – tollfree  
E-Mail sales@sick.com.au

**Belgium/Luxembourg**

Phone +32 (0)2 466 55 66  
E-Mail info@sick.be

**Brasil**

Phone +55 11 3215-4900  
E-Mail sac@sick.com.br

**Canada**

Phone +1 905 771 14 44  
E-Mail information@sick.com

**Ceská Republika**

Phone +420 2 57 91 18 50  
E-Mail sick@sick.cz

**China**

Phone +86 4000 121 000  
E-Mail info.china@sick.net.cn  
Phone +852-2153 6300  
E-Mail ghk@sick.com.hk

**Danmark**

Phone +45 45 82 64 00  
E-Mail sick@sick.dk

**Deutschland**

Phone +49 211 5301-301  
E-Mail kundenservice@sick.de

**España**

Phone +34 93 480 31 00  
E-Mail info@sick.es

**France**

Phone +33 1 64 62 35 00  
E-Mail info@sick.fr

**Great Britain**

Phone +44 (0)1727 831121  
E-Mail info@sick.co.uk

**India**

Phone +91-22-4033 8333  
E-Mail info@sick-india.com

**Israel**

Phone +972-4-6801000  
E-Mail info@sick-sensors.com

**Italia**

Phone +39 02 27 43 41  
E-Mail info@sick.it

**Japan**

Phone +81 (0)3 3358 1341  
E-Mail support@sick.jp

**Magyarország**

Phone +36 1 371 2680  
E-Mail office@sick.hu

**Nederlands**

Phone +31 (0)30 229 25 44  
E-Mail info@sick.nl

**Norge**

Phone +47 67 81 50 00  
E-Mail austefjord@sick.no

**Österreich**

Phone +43 (0)22 36 62 28 8-0  
E-Mail office@sick.at

**Polska**

Phone +48 22 837 40 50  
E-Mail info@sick.pl

**România**

Phone +40 356 171 120  
E-Mail office@sick.ro

**Russia**

Phone +7-495-775-05-30  
E-Mail info@sick.ru

**Schweiz**

Phone +41 41 619 29 39  
E-Mail contact@sick.ch

**Singapore**

Phone +65 6744 3732  
E-Mail admin@sicksgp.com.sg

**Slovenija**

Phone +386 (0)1-47 69 990  
E-Mail office@sick.si

**South Africa**

Phone +27 11 472 3733  
E-Mail info@sickautomation.co.za

**South Korea**

Phone +82 2 786 6321/4  
E-Mail info@sickkorea.net

**Suomi**

Phone +358-9-25 15 800  
E-Mail sick@sick.fi

**Sverige**

Phone +46 10 110 10 00  
E-Mail info@sick.se

**Taiwan**

Phone +886-2-2375-6288  
E-Mail sales@sick.com.tw

**Türkiye**

Phone +90 (216) 528 50 00  
E-Mail info@sick.com.tr

**United Arab Emirates**

Phone +971 (0) 4 8865 878  
E-Mail info@sick.ae

**USA/México**

Phone +1(952) 941-6780  
1 800-325-7425 – tollfree  
E-Mail info@sickusa.com

More representatives and agencies  
at [www.sick.com](http://www.sick.com)