



Temperature sensors  
Resistance thermometer

THTS-1AA540506MZ



**Model Name** > [THTS-1AA540506MZ](#)  
**Part No.** > [6047610](#)



**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 ≤ (L+ - 10 V)/0.023 A [Ohm])

**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:	Conical coupling (DIN 11851) DN 40 with union nut
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>:

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. 40 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

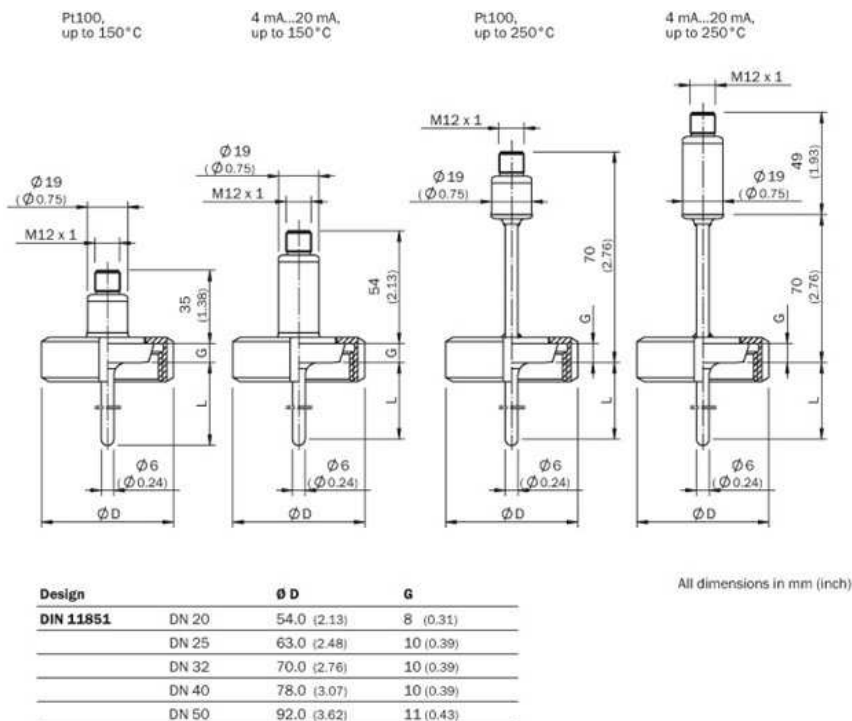
Shock resistance:

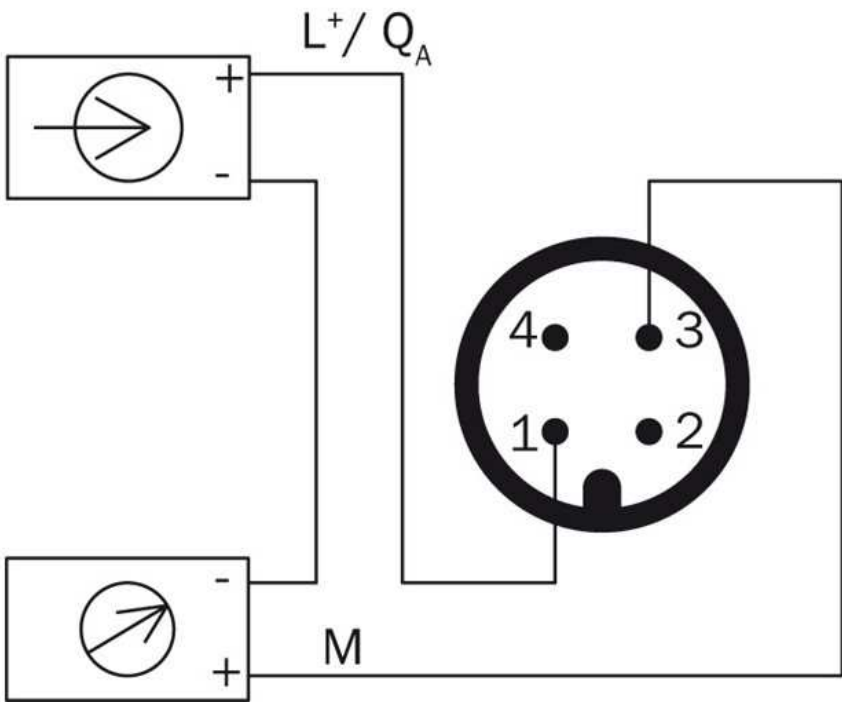
According to IEC 60751

Relative humidity:

≤ 95 %

### Dimensional drawing process connection





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