



Temperature sensors  
Resistance thermometer

THTL-1AASB0424MZ



**Model Name** > [THTL-1AASB0424MZ](#)  
**Part No.** > [6047647](#)



**At a glance**

- Pt100, accuracy class A (IEC 60751)
- Measuring ranges -50 °C ... +150 °C and -50 °C ... +250 °C
- In-line housing for orbital welding in pipe
- Sensor probe spring-loaded in thermowell
- Wetted parts: Corrosion-resistant
- stainless steel 316L/1.4435, Ra 0.8 µm
- Pt100 (4-wire) or 4 mA ... 20 mA (2-wire)
- Round connector M12 x 1

**Your benefits**

- Engineered for installation in a pipe, the integrated design provides the optimal solution to this type of measurement
- The sensor can be exchanged without opening the process, providing high equipment availability and minimizing hygienic risks
- Safe hygienic operation: Wetted parts are made from high-grade stainless steel, hygienically-graded surface finish, and a design with minimum of dead space
- Rugged: Connection housing is easily cleaned and splash water proof
- 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: ≤ 3.2 s <sup>1)</sup> response time t90: ≤ 7.3 s

<sup>1)</sup> Depending on sensor configuration, according to IEC 60751

**Mechanics/electronics**

Process connection:	Straight pipe (DIN EN ISO 1127 and DIN 11866), row B, for welding
Nominal width:	NW 42.4
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> :	Round connector M12 x 1, 4-pin/IP 68 and IP 69K
Electrical safety:	Dielectric strength: 500 V AC Protection class: III Reverse polarity protection: L+ towards M
Supply voltage:	10 V DC ... 35 V DC
Protection class III:	✓
CE-conformity:	2004/108/EC, EN 61326-2-3
Pressure resistance:	Max. 25 bar at room temperature
Maximum power consumption:	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

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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 %

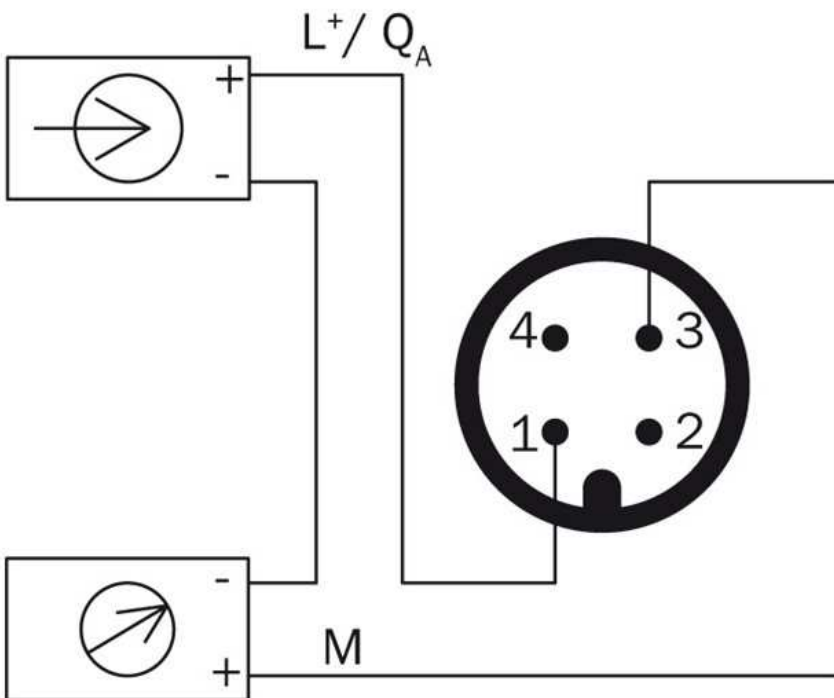
## Dimensional drawing process connection

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## Connection type

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