



Temperature sensors Resistance thermometer

THTL-1PAAB0424MZ



Model Name > [THTL-1PAAB0424MZ](#)
Part No. > [6047645](#)



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
Output signal:	Pt100, 4-wire

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 ¹⁾ response time t90: ≤ 7.3 s

¹⁾ Depending on sensor configuration, according to IEC 60751

Mechanics/electronics

¹⁾ 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 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 %

Complete assembly

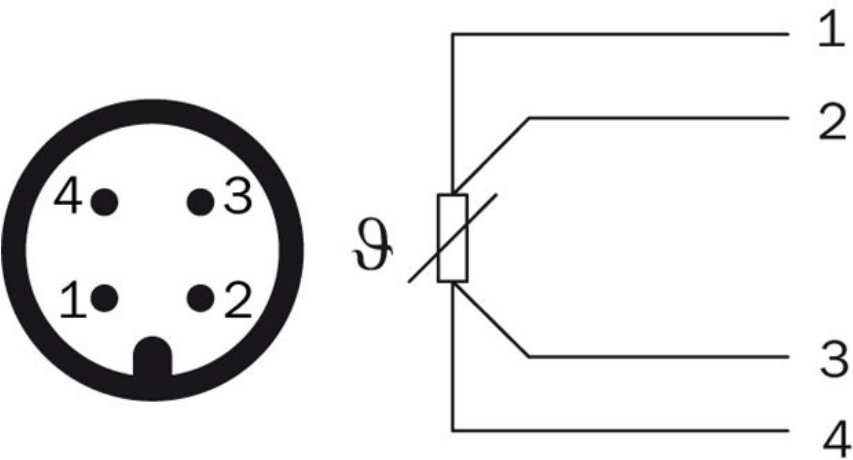
Protection tube with process connection

Technical drawings showing two types of protection tubes:

- Complete assembly:** Shows a tube with a flange at the top and a process connection at the bottom. Dimensions include:
 - M : Total height
 - L : Flange thickness
 - $L1$: Tube length
 - TL : Total length
 - S : Flange thickness
 - $\phi 9$ ($\phi 0.35$): Tube ID
 - $\phi 4.8$ ($\phi 0.19$): Flange ID
 - ϕD : Flange OD
- Protection tube with process connection:** Shows a tube with a G 3/8 process connection at the top and a flange at the bottom. Dimensions include:
 - M : Total height
 - L : Flange thickness
 - $L1$: Tube length
 - TL : Total length
 - S : Flange thickness
 - $\phi 9$ ($\phi 0.35$): Tube ID
 - $\phi 4.8$ ($\phi 0.19$): Flange ID
 - ϕD : Flange OD

All dimensions in mm (inch)

Design	ϕD	s	TL	L1	L	M	
Angled pipe	DN 17.2	17.2 (0.68)	1.6 (0.63)	34.0 (13.39)	55.0 (21.65)	16.0 (6.30)	41.0 (16.14)
	DN 21.3	21.3 (0.84)	1.6 (0.63)	36.0 (14.17)	58.0 (22.83)	18.0 (7.09)	39.0 (15.35)
	DN 26.9	26.9 (1.06)	1.6 (0.63)	55.0 (21.65)	81.0 (31.89)	30.0 (11.81)	27.0 (10.63)
	DN 42.4	42.4 (1.17)	2.0 (0.79)	65.0 (25.59)	102.0 (40.16)	30.0 (11.81)	27.0 (10.63)



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