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DATA SHEET

THTS-1PBT50756MZ

THTS
Temperature sensors

SICK Sensor Intelligence



Illustration may differ

TEMPERATURE SENSORS

THTS-1PBT50756MZ

ORDERING INFORMATION

Type	part no.
THTS-1PBT50756MZ	6065440

Further device versions and accessories at www.sick.com/THTS

DETAILED TECHNICAL DATA

FEATURES

Measuring range	–50 °C ... +250 °C
Sensor element	Pt100
Output signal	Pt100, 4-wire

MECHANICS/ELECTRONICS

Communication interface	-
Process connection	Tri-clamp ½", ¾"
Seal	Without seal
Insertion length/diameter of probe	75 mm / 6 mm
Wetted parts	Stainless steel 1.4435 / 316L, R_a ≤ 0.8 µm
Maximum process pressure	≤ 16 bar [1]
Pressure resistance	Max. 16 bar at room temperature
Housing material	Stainless steel (CrNi)
Connection type	M12 round connector x 1, 4-pin [2]
Enclosure rating	IP67 [3] IP69 [3]
Measuring current	0.1 mA ... 1 mA
Electrical safety	Protection class: III, dielectric strength: 500 V AC
Protection class III	✓
Initialization time	Max. 4 s

[1] Pressure resistance at room temperature.

[2] The enclosure rating classes specified only apply while the thermometer is connected with female connectors that provide the corresponding enclosure rating.

[3] IP enclosure rating as per IEC 60529.

PERFORMANCE

Accuracy of sensor element	Class A according to IEC 60751 [1]
Response time	t_{50} ≤ 3.3 s [2] t_{90} ≤ 9.7 s [2]

[1] Class B (measuring range –50 ° C ... –30 ° C).

[2] Depending on sensor configuration, according to IEC 60751.

AMBIENT DATA

Ambient temperature	–40 °C ... +85 °C
Storage and transport temperature	–40 °C ... +85 °C
Shock resistance	50 g, 6ms (according to IEC 60068-2-27)
Relative humidity	≤ 100 % [1]

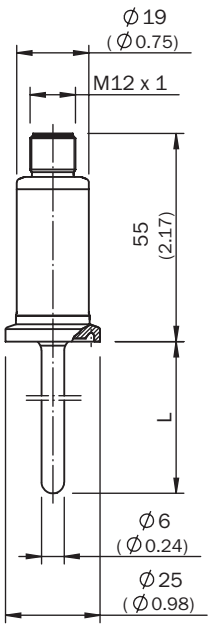
[1] Condensation allowed.

CERTIFICATES

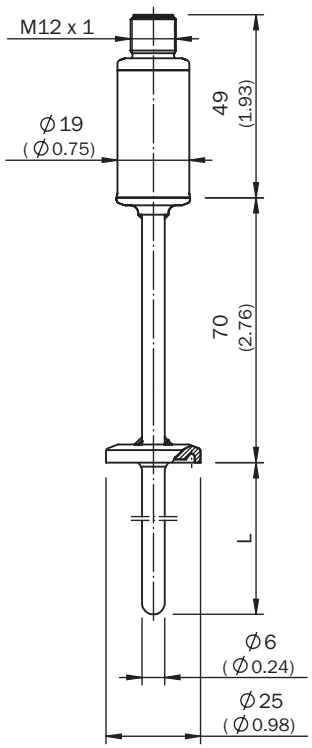
China RoHS	✓

DIMENSIONAL DRAWING

Pt100, 4 mA ... 20 mA,
up to 150 °C



Pt100, 4 mA ... 20 mA,
up to 250 °C



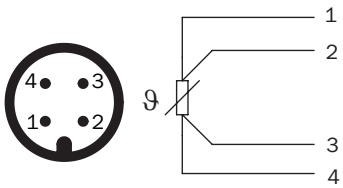
All dimensions in mm (inch)

Dimensions in mm (inch)

APPLICATION



CONNECTION TYPE ROUND CONNECTOR M12 X 1, OUTPUT SIGNAL PT100



Further information as well as suitable accessories, example applications and downloads such as CAD dimensional models, operating instructions and software can be found at www.sick.com/6065440

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SICK AT A GLANCE

SICK is a leading global technology company for intelligent sensors and integrated solutions in industrial automation. Our technologies set benchmarks, making your industrial processes more efficient, safer and more sustainable – both in logistics and manufacturing operations.

SICK combines sensor intelligence with industry expertise and certified consulting services. We provide the ideal foundation for scalable as well as tailor-made automation solutions and create added value along the entire value chain. Our close partnerships with our customers are more than just a promise: Together, we optimize productivity, improve quality, protect health and safety, and help build a sustainable future. All with empathy and trust.

Since 1946, we have been developing innovative technologies with passion and a pioneering spirit. With a global network in around 40 countries, SICK has a global presence and is always close by. The company's headquarters are located in Waldkirch near Freiburg, Germany. Our customers benefit from our understanding of both local and global requirements, which enables us to deliver tailor-made solutions

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