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DATA SHEET

TCT-2AASE0253MZ

TCT
Temperature sensors

SICK
Sensor Intelligence



Illustration may differ

TEMPERATURE SENSORS

TCT-2AASE0253MZ

ORDERING INFORMATION

Type	part no.
TCT-2AASE0253MZ	6085737

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

DETAILED TECHNICAL DATA

FEATURES

Measuring range	–50 °C ... +150 °C
Sensor element	Pt1000
Output signal	4 mA ... 20 mA, 2-wire
Maximum ohmic load R_A	$R_A \leq (L^+ - 9\ V) / 0.023\ A$ [Ohm]

MECHANICS/ELECTRONICS

Communication interface	-
Process connection	Compression fitting G ½ B, stainless steel ferrule
Seal	Without seal
Insertion length/diameter of probe	25 mm / 3 mm
Wetted parts	Stainless steel 1.4571
Maximum process pressure	≤ 100 bar [1]
Pressure resistance	Max. 100 bar with supplied compression fitting with stainless steel ferrule
Housing material	Stainless steel 1.4571
Connection type	M12 round connector x 1, 4-pin [2]
Enclosure rating	IP67 [3]
Measuring current	0.3 mA ... 1 mA
Supply voltage	10 V DC ... 35 V DC
Maximum current consumption	Approx. 30 mA
Electrical safety	Protection class: III, dielectric strength: 500 V AC, Reverse polarity protection: L^+ to M
Protection class III	✓

[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.

Weight	Ca. 145 g (depending on configuration)
Initialization time	< 10 ms

[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
Transmitter accuracy	≤ ± 0.2 % of span
Transmitter linearity	≤ 0.1 % of span
Response time	t_{50} ≤ 2.8 s [1] t_{90} ≤ 9.1 s [1]

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

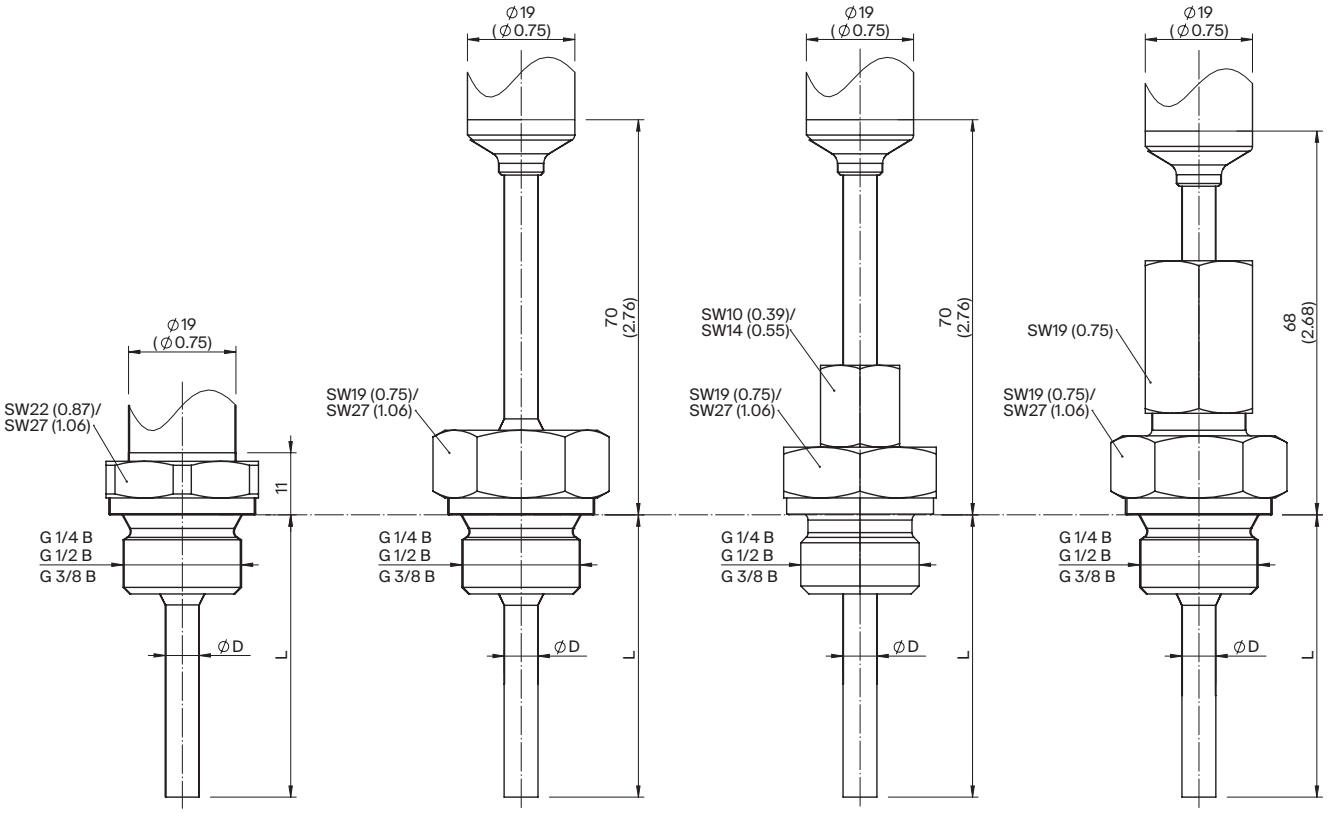
AMBIENT DATA

Ambient temperature	–40 °C ... +85 °C
Storage and transport temperature	–40 °C ... +85 °C
Shock resistance	500 g (IEC 60751)
Vibration resistance according to IEC 60751	3 g

CERTIFICATES

EU declaration of conformity	✓
UK declaration of conformity	✓
China RoHS	✓

DIMENSIONAL DRAWING: ZYLINDRICAL THREADS

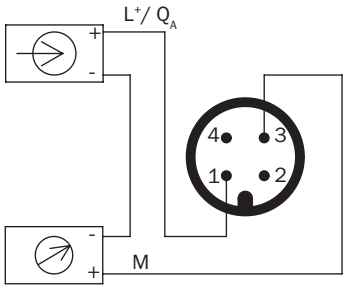


Process connections, cylindrical thread

Threaded connection up to 150°C	Threaded connection up to 250°C	Threaded connection and clamping connection	Threaded connection and protective pipe with thread

Dimensions in mm (inch)
TCT-2

CONNECTION TYPE PLUG M12 X 1, OUTPUT SIGNAL 4 MA ... 20 MA



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/6085737



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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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