

TBT-1ABS11006GZ

TBT

TEMPERATURE SENSORS





Ordering information

| Туре | Part no. |
|-----------------|----------|
| TBT-1ABS11006GZ | 6043134 |

Other models and accessories → www.sick.com/TBT

Illustration may differ



Detailed technical data

Features

| Measuring range | -50 °C +250 °C |
|-----------------------------------|--|
| Sensor element | Pt100 |
| Output signal | 4 mA 20 mA, 2-wire |
| Maximum ohmic load R _A | $R_A \le (L^+ - 10 \text{ V}) / 0.028 \text{ A [Ohm]}$ |

Mechanics/electronics

| · | |
|------------------------------------|--|
| Process connection | Compression fitting G 1/4 B, CrNi stainless steel ferrule |
| Insertion length/diameter of probe | 100 mm / 6 mm |
| Wetted parts | Stainless steel 1.4571 |
| Pressure resistance | Max. 100 bar with supplied compression fitting with stainless steel ferrule |
| Housing material | Aluminum |
| Connection type | Cable gland M16 x 1.5 ¹⁾ |
| Enclosure rating | IP65 ²⁾ |
| Measuring current | 0.3 mA 1 mA |
| Supply voltage | 10 V DC 35 V DC |
| Maximum current consumption | Max. 28 mA |
| Electrical safety | Protection class: III, insulation voltage: 100 V, reverse polarity protection of variant with measuring transducer 4 mA \dots 20 mA: L+ to M |
| Protection class III | ✓ |
| CE-conformity | 2004/108/EC, EN 61326-2-3 |
| RoHS certificate | ✓ |
| Weight | Ca. 155 g (depending on configuration) |
| Initialization time | < 1 ms |

¹⁾ The enclosure rating classes specified only apply while the thermometer is connected with female connectors that provide the corresponding enclosure rating.

Performance

| Accuracy of sensor element | Class A according to IEC 60751 |
|----------------------------|--------------------------------|

 $^{^{1)}}$ Depending on sensor configuration, according to IEC 60751.

²⁾ IP enclosure rating as per IEC 60529.

| Transmitter accuracy | ≤ ± 0.1 % of span |
|-----------------------|---|
| Transmitter linearity | ≤ 0.1 % of span |
| Response time | Response time t_{50} : $\leq 5.8 \text{ s}^{-1}$ Response time t_{90} : $\leq 15.5 \text{ s}^{-1}$ |

¹⁾ Depending on sensor configuration, according to IEC 60751.

Ambient data

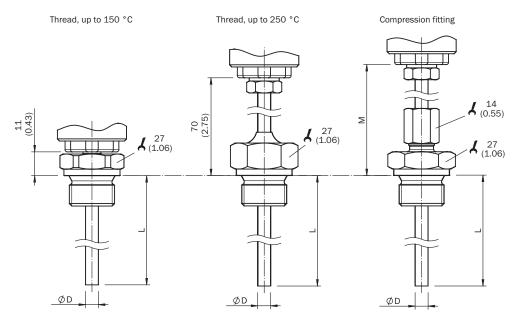
| Ambient temperature | -40 °C +85 °C |
|---|---------------|
| Storage and transport temperature | -40 °C +60 °C |
| Shock resistance according to IEC 60751 | 500 g |
| Vibration resistance according to IEC 60751 | 3 g |

Classifications

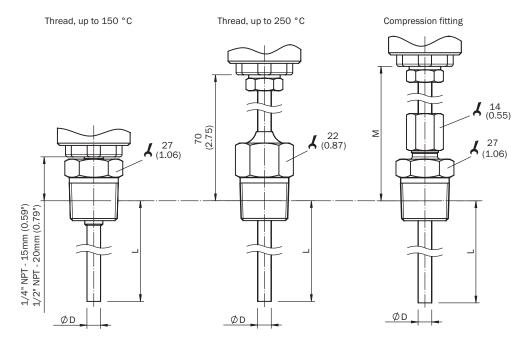
| ECLASS 5.0 | 27200208 |
|----------------|----------|
| ECLASS 5.1.4 | 27200208 |
| ECLASS 6.0 | 27200208 |
| ECLASS 6.2 | 27200208 |
| ECLASS 7.0 | 27200208 |
| ECLASS 8.0 | 27200208 |
| ECLASS 8.1 | 27200208 |
| ECLASS 9.0 | 27200208 |
| ECLASS 10.0 | 27200208 |
| ECLASS 11.0 | 27200208 |
| ECLASS 12.0 | 27200208 |
| ETIM 5.0 | EC002994 |
| ETIM 6.0 | EC002994 |
| ETIM 7.0 | EC002994 |
| ETIM 8.0 | EC002994 |
| UNSPSC 16.0901 | 41112211 |

Dimensional drawing (Dimensions in mm (inch))

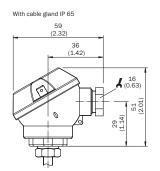
Dimensional drawing: zylindrical threads

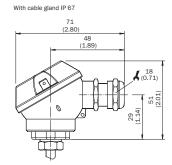


Dimensional drawing: conical threads



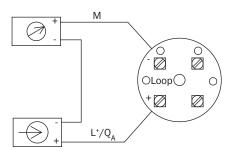
Dimensional drawing: housing, without process connection





Connection type

Cable entry M16 x 1.5, cable cross-section up to 0.75 mm2, output signal 4 mA \dots 20 mA



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We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

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