



## Temperature sensors

TBT-1AAGE0253GZ



**Model Name** > [TBT-1AAGE0253GZ](#)  
**Part No.** > [6043050](#)



### At a glance

- Pt100 element, accuracy class A according to IEC 60751
- Measuring ranges -50 °C ... 150 °C and -50 °C ... 250 °C
- Wetted parts made from corrosion resistant stainless steel 1.4571
- Various mechanical adaptations and insertion lengths
- Integrated transmitter with output signal 4 mA ... 20 mA (2-wire)
- Measurement accuracy of transmitter
- Cable gland M16x1.5

### Your benefits

- Reliable operation through rugged design and high-quality materials
- Good long-term stability, accuracy and linearity
- Quick and safe installation
- Convenient system integration even in narrow installation spaces
- Optimal solutions for individual requirements



### 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)/0.028 A [Ohm]) |

### Performance

|                             |                                |
|-----------------------------|--------------------------------|
| Accuracy of sensor element: | Class A according to IEC 60751 |
| Transmitter accuracy:       | ≤ ± 0.1 % of span              |
| Transmitter linearity:      | ≤ 0.1 % of span                |

### Mechanics/electronics

|  |   |
|--|---|
| Process connection:                                    | Thread G 1/2 B  |
| Insertion length/diameter of probe:                    | 25 mm/3 mm  |
| Housing material:                                      | Stainless steel 1.4571  |
| Wetted parts:  | Stainless steel 1.4571  |
| Electrical connection/enclosure rating <sup>1)</sup> : | Cable gland M16 x 1.5, IP 65  |
| Measuring current:                                     | 0.3 mA ... 1 mA   |
| Electrical safety:                                     | Protection class: III, dielectric strength: 100 V, reverse polarity protection of variant with transmitter 4 mA ... 20 mA: L+ towards M |
| Weight:  | Ca. 155 g (depending on configuration)  |
| Supply voltage:  | 10 V DC ... 35 V DC for variant with transmitter 4 mA ... 20 mA   |

Protection class III: ✓  
CE-conformity: 2004/108/EC, EN 61326-2-3  
Pressure resistance: Max. 120 bar

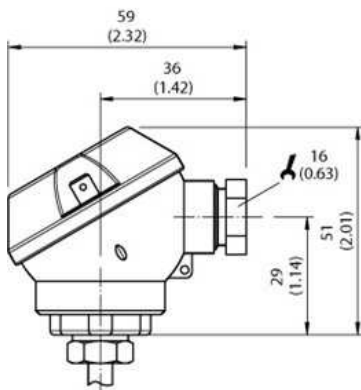
1) Enclosure rating IP per IEC 60529. The enclosure rating classes specified only apply while the pressure transmitter is connected with female connectors that provide the corresponding enclosure rating.

### Ambient data

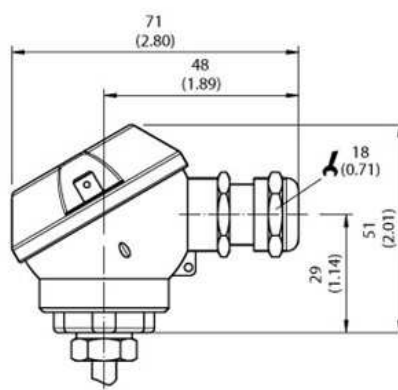
Ambient temperature: -40 °C ... 85 °C  
Storage and transport temperature: -40 °C ... 60 °C  
Shock resistance according to IEC 60751: 500 g  
Vibration resistance according to IEC 60751: 3 g

### Dimensional drawing housing

With cable gland IP 65

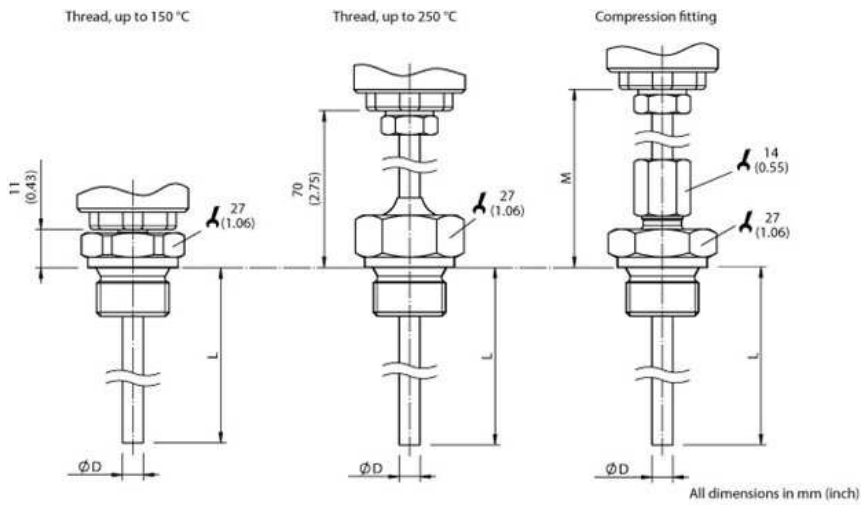


With cable gland IP 67

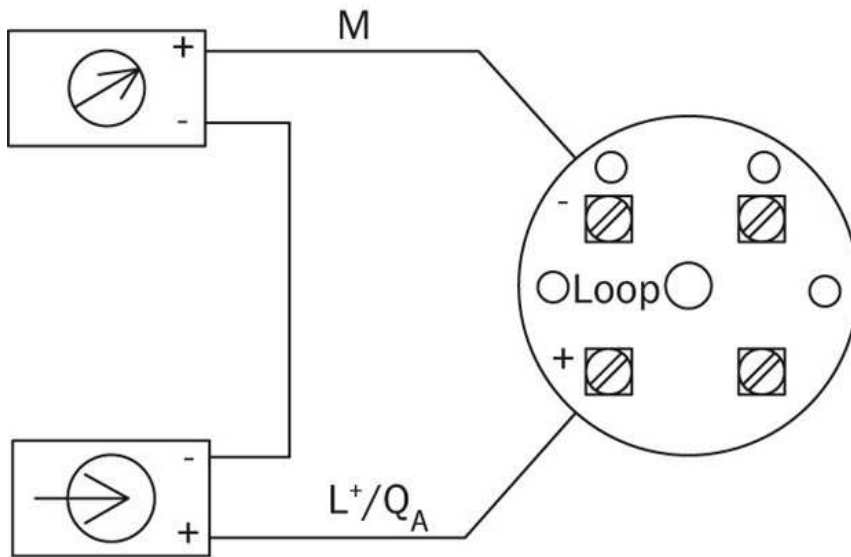


All dimensions in mm (inch)

## Dimensional drawing process connection



## Connection type



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