



Temperature sensors

TBT-1AAPE0253PZ



Model Name > [TBT-1AAPE0253PZ](#)
Part No. > [6043116](#)



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 ($RA \leq (L + 10 \text{ V}) / 0.028 \text{ A [Ohm]}$)

Performance

Accuracy of sensor element:	Class A according to IEC 60751
Transmitter accuracy:	$\leq \pm 0.1 \text{ \% of span}$
Transmitter linearity:	$\leq 0.1 \text{ \% of span}$

Mechanics/electronics

Process connection:	Compression fitting G 1/2 B, PTFE ferrule
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 ¹⁾ :	Cable gland M16 x 1.5, IP 67
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. 40 bar with supplied compression fitting with PTFE ferrule

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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