

**EPIC® SENSORS T-BTD / W-BTD**

**Bearing temperature sensor**

**Features**

- temperature range -200...+300 °C
- suitable for bearing temperature measurement
- flat tip
- spring-loaded screw for installation
- Pt 100 or thermocouple as sensing element
- Pt 100 accuracy class A as standard delivery
- thermocouple accuracy class 1 as standard delivery
- AISI 316L as standard delivery material, other materials on request
- brass tip as standard delivery material, other tip materials on request
- tailored solutions according to customer specific needs.

**Typical applications**

- machinery
- motor manufacturing industry
- gear manufacturing industry.

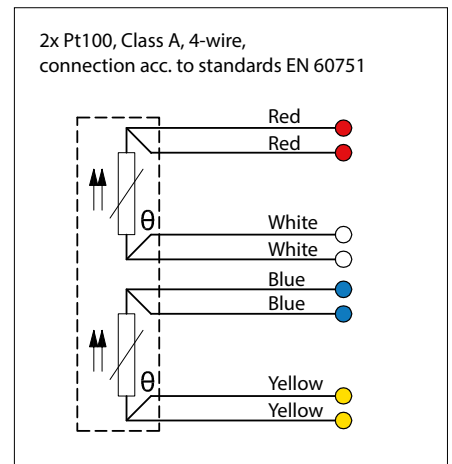
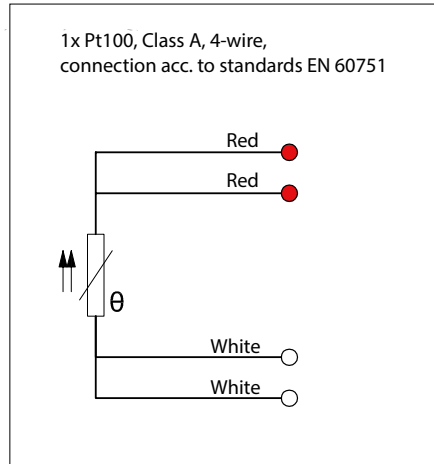
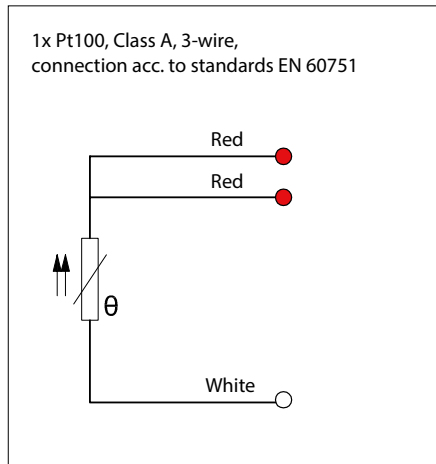


**Technical data**

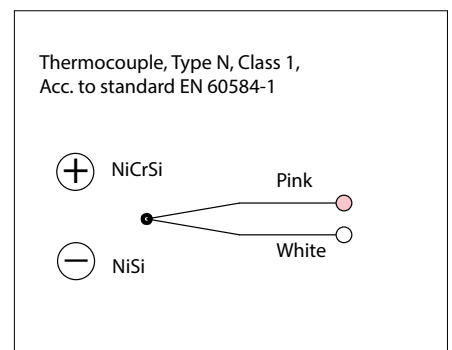
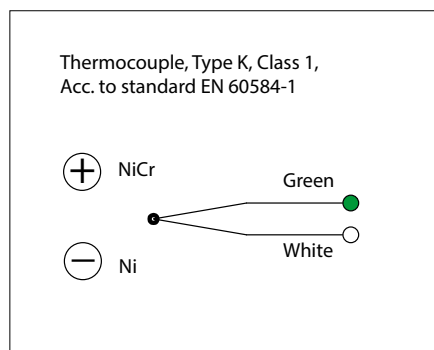
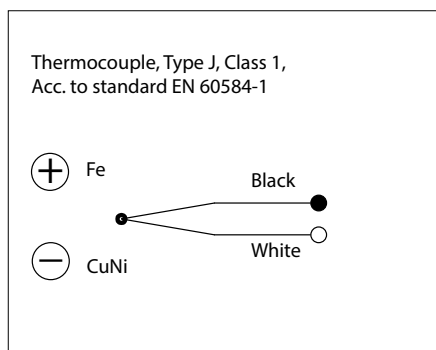
<b>Materials</b>	AISI 316L/brass tip, maximum temperature +250 °C, temporarily +300 °C, other materials on request (Note: overall max. temperature according to the cable material)
<b>Tip diameter</b>	8 mm, other diameters on request (Note: sensor tube is tapered from tip portion to reduce the heat conduction)
<b>Cable material</b>	SIL = silicone, max. +180 °C FEP = Teflon®, max. +205 °C GGD = glass silk cable/metal braid jacket, max. +350 °C FDF = FEP wire insulation/braid shield/FEP jacket, max. +205 °C SDS = silicone wire insulation/braid shield/silicone jacket, only available as 2 wire cable, max. +180 °C TDT = Teflon® wire insulation/braid shield/ Teflon® jacket, max. +205 °C FDS = FEP wire insulation/braid shield/silicone jacket, max. +180 °C FS = FEP wire insulation/silicone jacket, max. +180 °C PUR = polyurethane cable, extremely good oil resistance, max. +80 °C (Note: PUR cable available only for this sensor type)
<b>Thread</b>	R3/8" as standard delivery, R1/2" as option, other threads on request
<b>Tolerances Pt100 (IEC 60751)</b>	A tolerance $\pm 0.15 + 0.002 \times t$ , operating temperature -100...+450 °C B tolerance $\pm 0.3 + 0.005 \times t$ , operating temperature -196...+600 °C B 1/3 DIN, tolerance $\pm 1/3 \times (0.3 + 0.005 \times t)$ , operating temperature -196...+600 °C B 1/10 DIN, tolerance $\pm 1/10 \times (0.3 + 0.005 \times t)$ , operating temperature -196...+600 °C
<b>Tolerances thermocouple (IEC 60584)</b>	Type J tolerance class 1 = -40...375 °C $\pm 1.5$ °C, 375...750 °C $\pm 0.004 \times t$ Type K and N tolerance class 1 = -40...375 °C $\pm 1.5$ °C, 375...1000 °C $\pm 0.004 \times t$
<b>Temperature range Pt100</b>	-200...+300 °C, depending on cable material.
<b>Temperature range thermocouple</b>	-40...+250 °C, depending on thermocouple type and cable material
<b>Approvals</b>	METROLOGICAL PATTERN APPROVAL
<b>Quality certificate</b>	ISO 9001:2015 issued by DNV

**EPIC® SENSORS T-BTD / W-BTD**  
**Bearing temperature sensor**

**Pt100 connections**



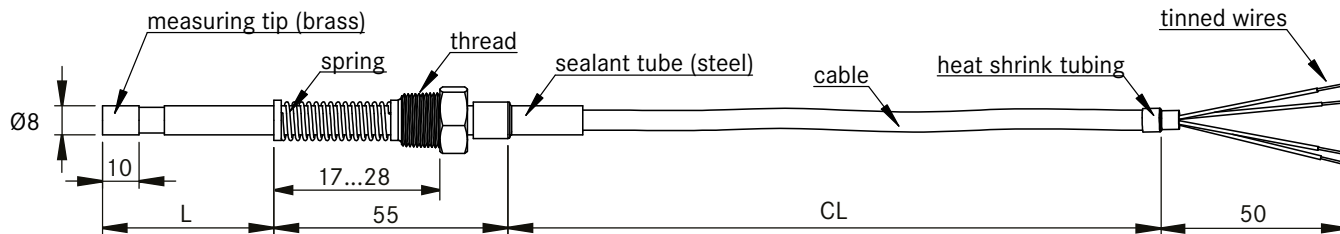
**Thermoelement connections**



**EPIC® SENSORS T-BTD / W-BTD**

**Bearing temperature sensor**

**Drawing**



**Product code key**

Example code: W – BTD – Pt100A – L30 – 4M / SIL – X

W	= Pt100 resistance thermometer
2xW	= 2 x Pt100 resistance thermometer
T	= thermocouple
2xT	= 2 x thermocouple
BTD	= bearing sensor (constant in code)
Pt100A	= Pt100, with accuracy class A
TC-K1	= thermocouple type K, accuracy class 1
TC-N1	= thermocouple type N, accuracy class 1
TC-J1	= thermocouple type J, accuracy class 1
L30	= length [mm]
4M	= cable length, CL [m]
SIL, FEP, GGD, FDF, TDT, SDS, FDS, FS, PUR	= cable material (for more information, look technical data on first page of the datasheet)
X	= additional details on the text line

