

Bearing Temperature Sensors

BETTER BY DESIGN

Milli-Temp Series

Adjustable Depth Bearing & Surface Temperature Sensor: 4-20 mA Output

APPLICATION

For use on any application where bearing or surface temperature monitoring is desired or required.

METHOD OF OPERATION

The Milli-Temp is a loop powered analog sensor with a 4-20 mA linear output that is scaled across a temperature range for continuous temperature monitoring.

The sensor has been designed to allow the depth of the probe to be adjustable depending on your application.

The sensor screws directly into a bearing housing through the existing grease zerk thread. Each sensor is fitted with a zerk to allow lubrication of the bearing without the need for removal of the sensor.

For surface mount applications, a lug style adaptor bolts directly onto a bearing housing, motor, gearbox, or machine casing. The mounting hole is 3/8" from the factory, but can be drilled up to 1/2" if needed.

The sensor is supplied with a nine foot cable. The connections are not polarity sensitive therefore special connection requirements are eliminated, and the cable can be extended in the field.

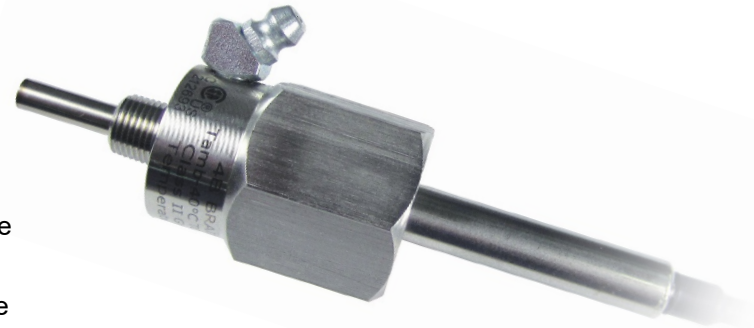
FEATURES

- ▶ 4-20 mA Output
- ▶ Screw in Positive Mount Installation (Bearing Temp.)
- ▶ Grease Zerk for Bearing Lubrication (Bearing Temp.)
- ▶ Lug Style Adaptor (Surface Temp.)
- ▶ 1/2" NPT Conduit Entry
- ▶ 304 Stainless Steel Body
- ▶ CSA Class II Div 1 Approved

PART NUMBERS/ACCESSORIES

- | | |
|-----------------|-----------------------------------|
| ▶ ADBMIL1V4C/D2 | Milli-Temp: 2 Inch Probe |
| ▶ ADBMIL1V4C/D3 | Milli-Temp: 3 Inch Probe |
| ▶ ADBMIL1V4C/D4 | Milli-Temp: 4 Inch Probe |
| ▶ ADBMIL1V4C/D6 | Milli-Temp: 6 Inch Probe |
| ▶ ADBMIL1V4C/D8 | Milli-Temp: 8 Inch Probe |
| ▶ KIT-LUG-MIL | Lug Style Adaptor - Surface Temp. |
| ▶ ADBT4 | ADB Sensor Tester |

*Longer probe lengths available on request



ADB Sensor Tester

During planned maintenance or periodic testing, the ADB sensor tester can be used as a diagnostic tool to verify the alarm and shutdown sequences of the control unit are functioning as expected.



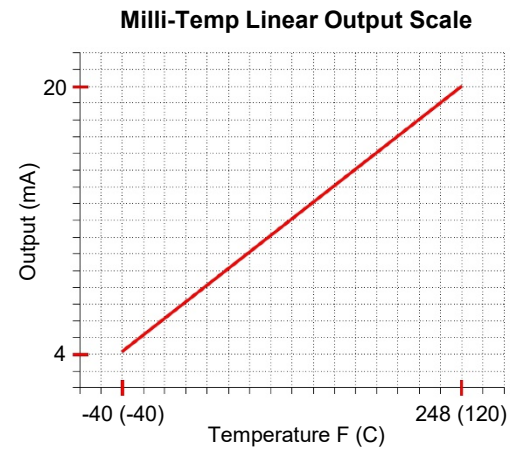
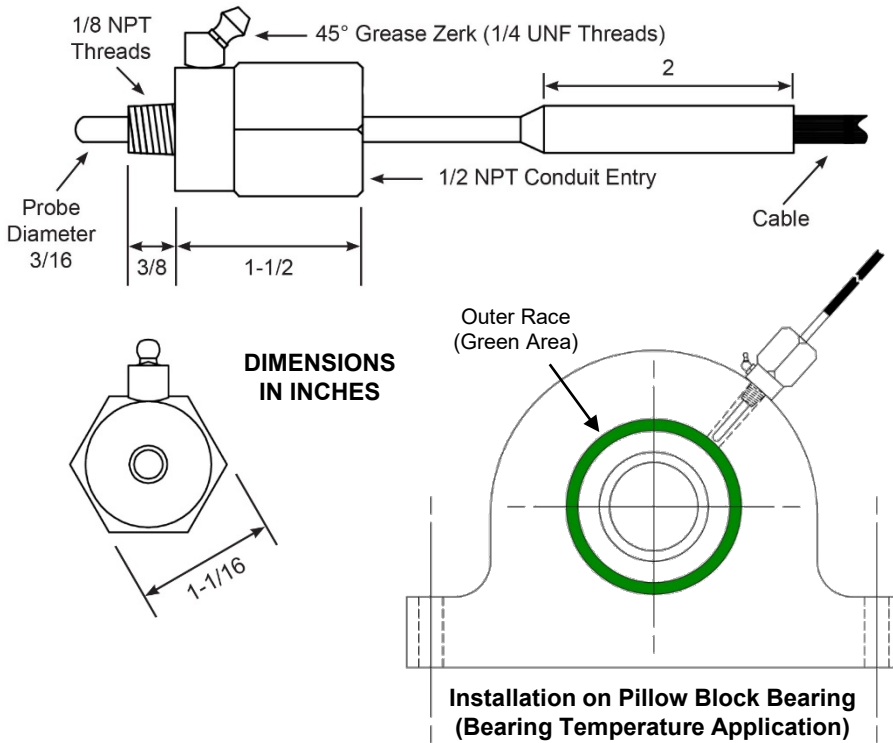
Probe Wrench
(Included with Sensor)



Lug Style Adaptor for Surface Mounting
(Sold Separately)

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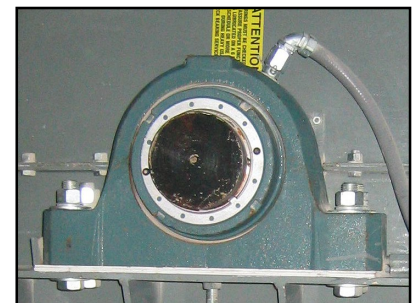
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TECHNICAL SPECIFICATIONS

Milli-Temp - Bearing & Surface Temperature Sensor

Milli-Temp Bearing Sensor	
Supply Voltage -	24 VDC Nominal (15 to 28 VDC)
Oversoltage Rating -	CAT I
Reverse Polarity Protection -	Yes
Current at -40° F (-40° C) -	4 mA
Current at 248° F (120° C) -	20 mA
Temperature Accuracy -	Typical $\pm 1^{\circ}\text{F}$ (0.6°C) Over Entire Range $\pm 5^{\circ}\text{F}$ (2.7°C)
Default Temp. Resolution Over Current Loop -	0.09°F (0.05°C)
Operating Temp. (Probe) -	Min. -40°F (-40°C) Max. 248°F (120°C)
Output Resolution (Typical) -	5 - 10 μA
Current Out of Range -	20.5 mA or < 4 mA
Body/Probe Material -	304 Stainless Steel
Fixing Thread -	1/8" NPT
Cable -	9 ft. (3 m) - 2 Conductor
Approvals -	CSA Class II Div 1 Groups E, F and G - T4 Zone 20 AEx ta IIIC T130°C Da Tamb -40°C to +50°C IP66



Bearing Sensor on Belt Conveyor



Lug Mount on Bearing Housing



Example of Bearing Failure