

# Bearing Temperature Sensors

BETTER BY DESIGN

## ADB Series

### Adjustable Depth Bearing Temperature Sensors

#### APPLICATION

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

#### METHOD OF OPERATION

The ADB series have been designed to allow the depth of the sensor to be adjustable depending on your application.

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

The ADB style sensors are available with a standard NTC thermistor for 4B's Hotbus and Watchdog systems, or a 4-wire PT100 - RTD type for PLC and DCS systems. Both types allow for continuous temperature monitoring.

The sensors are 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

- ▶ Adjustable Sensor Depth
- ▶ Screw in Positive Mount Installation
- ▶ Grease Zerk for Bearing Lubrication
- ▶ 1/2" NPT Conduit Entry
- ▶ 304 Stainless Steel Body
- ▶ NTC or PT100 - RTD Types
- ▶ CSA Class II Div 1 Approved

#### PART NUMBERS/ACCESSORIES

- |                |                                 |
|----------------|---------------------------------|
| ▶ ADB20V3C/D2  | NTC Type: 2 Inch Probe          |
| ▶ ADB20V3C/D3  | NTC Type: 3 Inch Probe          |
| ▶ ADB20V3C/D4  | NTC Type: 4 Inch Probe          |
| ▶ ADB20V3C/D6  | NTC Type: 6 Inch Probe          |
| ▶ ADB20V3C/D8  | NTC Type: 8 Inch Probe          |
| ▶ ADB20V3C/D10 | NTC Type: 10 Inch Probe         |
| ▶ ADB20V3C/D12 | NTC Type: 12 Inch Probe         |
| ▶ ADB20V3C/D16 | NTC Type: 16 Inch Probe         |
| ▶ ADB29V3C/D2  | PT100 - RTD Type: 2 Inch Probe  |
| ▶ ADB29V3C/D3  | PT100 - RTD Type: 3 Inch Probe  |
| ▶ ADB29V3C/D4  | PT100 - RTD Type: 4 Inch Probe  |
| ▶ ADB29V3C/D6  | PT100 - RTD Type: 6 Inch Probe  |
| ▶ ADB29V3C/D8  | PT100 - RTD Type: 8 Inch Probe  |
| ▶ ADB29V3C/D10 | PT100 - RTD Type: 10 Inch Probe |
| ▶ ADB29V3C/D12 | PT100 - RTD Type: 12 Inch Probe |
| ▶ ADB29V3C/D16 | PT100 - RTD Type: 16 Inch Probe |
| ▶ ADBT4        | ADB Sensor Tester               |
| ▶ ADBW         | ADB Probe Wrench                |



ADB Probe Wrench

#### ADB Sensor Tester

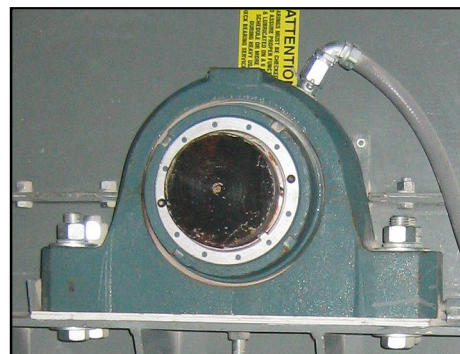
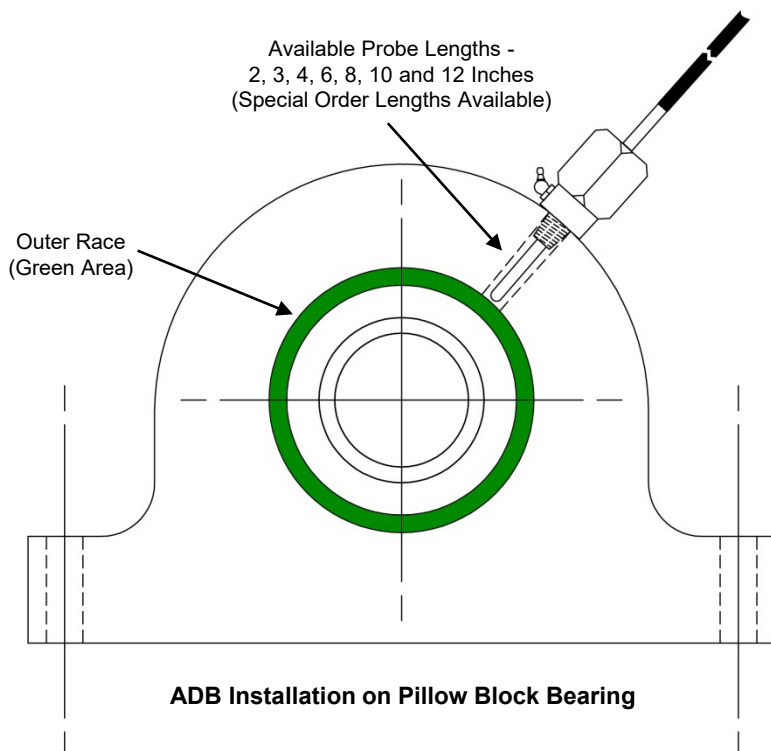
During planned maintenance or periodic testing, the ADB sensor tester can be used as a diagnostic tool to verify the alarm and shutdown sequences of the control unit are functioning as expected.



ATEX Approved  
Versions Available

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Bearing Sensor on Belt Conveyor



Example of Bearing Failure

## TECHNICAL SPECIFICATIONS

### ADB Series - Bearing Temperature Sensors

NTC Type	
Resistance at 77°F:	10,000 Ohms
Resistance at 140°F:	3,043 Ohms
Resistance at 194°F:	1,264 Ohms
Sensing Voltage:	5 to 24 VDC
Current Draw:	1 mA
Fixing Thread:	1/8" NPT
Minimum Temp:	-22° F (-30° C)
Maximum Temp:	220° F (105° C)
Approvals:	CSA Class II Div 1 Groups E, F and G (USA & Canada)

PT100 - RTD Type	
Resistance at 77°F:	109.73 Ohms
Resistance at 140°F:	123.24 Ohms
Resistance at 194°F:	134.70 Ohms
Coefficient	3850 PPM/K (385)
Sensing Voltage:	5 to 24 VDC
Current Draw:	1 mA
Fixing Thread:	1/8" NPT
Minimum Temp:	-22° F (-30° C)
Maximum Temp:	220° F (105° C)
Approvals:	CSA Class II Div 1 Groups E, F and G (USA & Canada)

Temperature Sensors can be used with an existing PLC/DCS or with the following 4B Hazard Monitoring Systems



T500 Hotbus Elite



Watchdog Super Elite



T400N Elite