

ADB Series – Cable Entry

Adjustable Depth Bearing Temperature Sensor

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. A number of versions are available with probe lengths of 50, 100, 200 and 300 mm. The sensors screw directly into a bearing housing through a 1/4" BSPT threaded grease zerk. Each sensor is fitted with a grease zerk to allow lubrication of the bearing without the need for removal of the sensor. The ADB series have NTC or PT100 type thermistors which allow for continuous temperature monitoring. The sensor is supplied with a 3m attached cable and can be connected to a PLC or to a hazard monitoring system, such as 4B's T500 Hotbus Elite, Watchdog Super Elite, or T400 NTC Elite. The connections are not polarity sensitive therefore special connection requirements are eliminated, and the cable can be extended in the field.



ADB Sensor – Cable Entry
(ATEX and IECEx Zone 20 Approved)

FEATURES

- ▶ Adjustable Sensor Depth
- ▶ Screw in Positive Mount Installation
- ▶ Grease Zerk for Bearing Lubrication
- ▶ NTC or PT100 Thermistor - Continuous Temperature
- ▶ ATEX and IECEx Zone 20 Approved



Part Number	Description	Thermistor Type	Thread	ATEX Zone	IECEx
ADB810V3AI	3m Cable; 100mm Probe	NTC	1/4" BSPT	20	✓
ADB810V3AI/D2	3m Cable; 50mm Probe	NTC	1/4" BSPT	20	✓
ADB810V3AI/D8	3m Cable; 200mm Probe	NTC	1/4" BSPT	20	✓
ADB810V3AI/D12	3m Cable; 300mm Probe	NTC	1/4" BSPT	20	✓
ADB819V3AI	3m Cable; 100mm Probe	PT100	1/4" BSPT	20	✓
ADB819V3AI/D2	3m Cable; 50mm Probe	PT100	1/4" BSPT	20	✓
ADB819V3AI/D8	3m Cable; 200mm Probe	PT100	1/4" BSPT	20	✓
ADB819V3AI/D12	3m Cable; 300mm Probe	PT100	1/4" BSPT	20	✓

Note: 5m Cable Sensors are Available on Request

ADB Series – Conduit Entry

Adjustable Depth Bearing Temperature Sensor

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. A number of versions is available with probe lengths of 50, 100, 200 mm. The sensors screw directly into a bearing housing through the existing 1/8" NPT threaded grease zerk. Each sensor is fitted with a grease zerk to allow lubrication of the bearing without the need for removal of the sensor. The ADB series have NTC type thermistors which allow for continuous temperature monitoring. The sensor is supplied with a 3m attached cable and can be connected to a PLC or to a hazard monitoring system, such as 4B's T500 Hotbus Elite, Watchdog Super Elite, or T400 NTC Elite. 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 (Steel Body)
- ▶ NTC or PT100 Thermistor - Continuous Temperature
- ▶ CSA, ATEX and IECEx Approved



ADB Sensor – Conduit Entry
(CSA, ATEX and IECEx Approved)

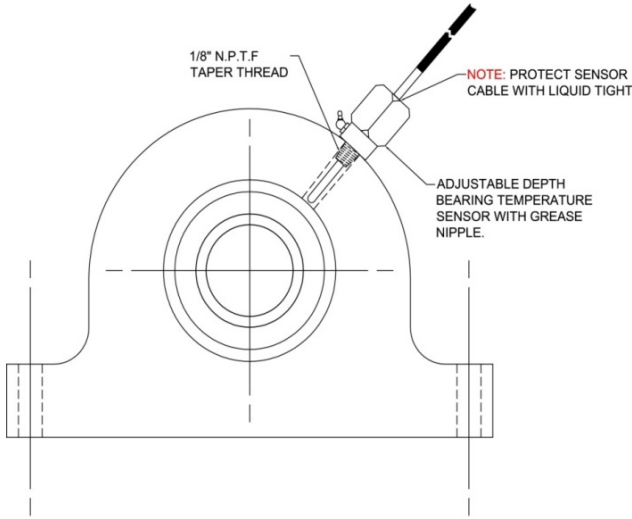


Note: 5m Cable Sensors
are Available on Request

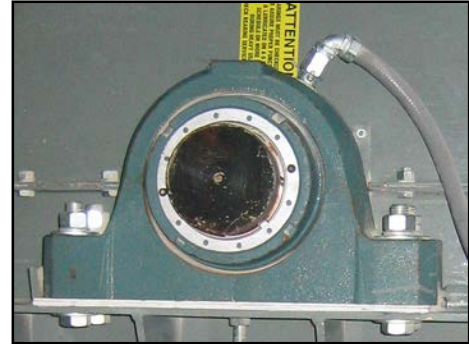
Part Number	Description	Thermistor Type	Mounting Thread	CSA	ATEX Zone	IECEx
ADB20V3CAI	3m Cable; 100mm Probe	NTC	1/8" NPT	Class II Div 1	20	✓
ADB20V3CAI/D2	3m Cable; 50mm Probe	NTC	1/8" NPT	Class II Div 1	20	✓
ADB20V3CAI/D8	3m Cable; 200mm Probe	NTC	1/8" NPT	Class II Div 1	20	✓
ADB20V3CAI/D12	3m Cable; 300mm Probe	NTC	1/8" NPT	Class II Div 1	20	✓
ADB29V3CAI	3m Cable; 100mm Probe	PT100	1/8" NPT	Class II Div 1	20	✓
ADB29V3CAI/D2	3m Cable; 50mm Probe	PT100	1/8" NPT	Class II Div 1	20	✓
ADB29V3CAI/D8	3m Cable; 100mm Probe	PT100	1/8" NPT	Class II Div 1	20	✓
ADB29V3CAI/D12	3m Cable; 300mm Probe	PT100	1/8" NPT	Class II Div 1	20	✓

ADB Series Temperature Sensor

BETTER BY DESIGN



Installation of Bearing Temperature Sensor



Bearing Sensor on Belt Conveyor



Example of Bearing Failure

TECHNICAL SPECIFICATIONS ADB Series - Bearing Temperature Sensor

NTC Type	
Resistance at 25°C:	10,000 Ohms
Resistance at 60°C:	2,487 Ohms
Resistance at 90°C:	916 Ohms
Sensing Voltage:	5 to 24 VDC
Current Draw:	1 ma
Fixing Thread:	1/8" NPT
Minimum Temp:	-30°C
Maximum Temp:	110°C

PT100 – RTD Type	
Resistance at -30°C:	88.22 Ohms
Resistance at 60°C:	123.24 Ohms
Resistance at 100°C:	138.50 Ohms
Sensing Voltage:	Via Transducer
Current Draw:	1 ma
Fixing Thread:	1/8" NPT
Minimum Temp:	-30°C
Maximum Temp:	110°C

Temperature Sensors can be used with the following 4B Hazard Monitoring Systems



T500 Hotbus Elite



Watchdog Super Elite
WDC4



T400 NTC Elite

Please refer to instruction manual for correct installation.
Information subject to change or correction. Aug 2017

Detailed specification, wiring diagrams and installation/operating instructions available upon request.

ADB Series – Accessories

ADBW - Probe Depth Adjustment Tool

APPLICATION

This specially designed wrench will allow the installer to tighten the olive nut during installation.

INSTALLATION INSTRUCTIONS

1. Remove the existing grease nipple from the bearing sensor.
2. Slacken the olive nut and remove the sensor probe.
3. Screw the sensor body in to the threaded hole in the bearing housing.
4. Re-insert the temperature probe in to the olive nut adjusting the depth to suit the bearing depth.
5. Tighten the olive nut using the recommended special spanner.
6. The maximum recommended torque for the olive nut is 2 Nm (18 lb-in)



ADB Probe Depth
Adjustment Tool

Cannot Find the Right Sensor?

Please contact one of our sales representatives and we will assist you with your custom requirements!