



Bearing Temperature Sensors

BETTER BY DESIGN

WDB2 Series – Conduit Entry Bearing Temperature Sensors

APPLICATION

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

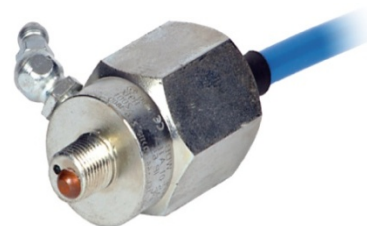
METHOD OF OPERATION

The WDB2 series bearing sensors are designed to screw directly into a bearing housing. Each sensor is fitted with a grease zerk to allow lubrication of the bearing without the need for removal of the sensor. The WDB2 series have a 1/8" NPT thread.

Three versions are available; an NTC thermistor or platinum RTD type for continuous temperature monitoring, and a PTC thermistor model with the following trip points (specify when ordering): 60°C, 70°C, 80°C and 90°C

The sensor is supplied with a three meter 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 Elite.

The connections are not polarity sensitive therefore special connection requirements are eliminated, and the cable can be extended in the field.



WDB20V3C (NTC Thermistor)
(CSA / NRTL Class II Div 1
Approved)

FEATURES

- ▶ Screw in Positive Mount Installation
- ▶ Grease Zerk for Bearing Lubrication
- ▶ NTC Version - Continuous Temperature
- ▶ PTC Version - Trip Points from 50°C to 90°C
- ▶ PT100 Version - Platinum RTD
- ▶ CSA / NRTL Class II Div.1 Approved



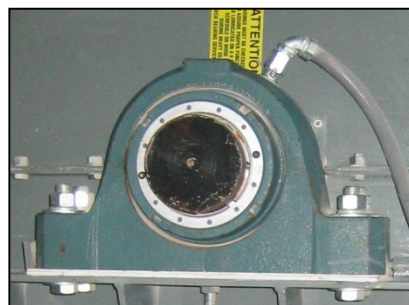
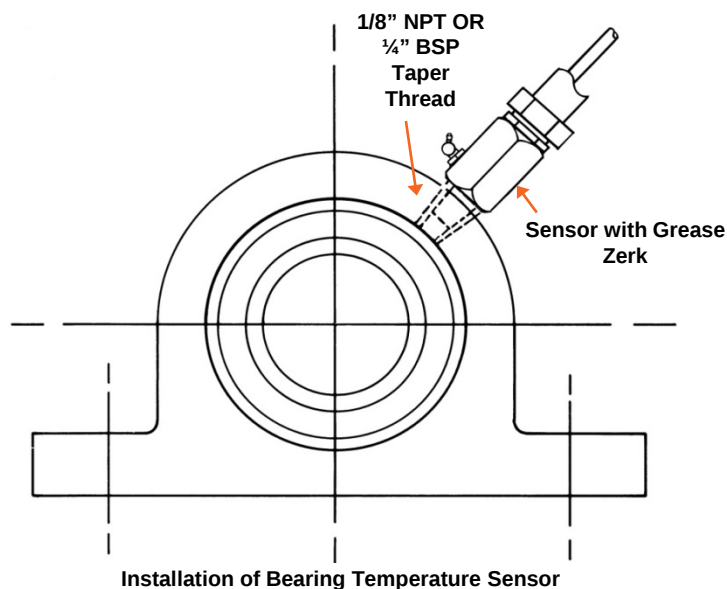
WDB23V3C (PTC Thermistor)
(CSA / NRTL Class II Div 1
Approved)

Part Number	Description	Thermistor Type	Thread	CSA
WDB20V3C	Continuous Temperature Monitoring	NTC	1/8" NPT	Class II Div. 1
WDB29V3C	Continuous Temperature Monitoring	PT100	1/8" NPT	Class II Div. 1
WDB22V3C	60°C Trip Point	PTC	1/8" NPT	Class II Div. 1
WDB23V3C	70°C Trip Point	PTC	1/8" NPT	Class II Div. 1
WDB24V3C	80°C Trip Point	PTC	1/8" NPT	Class II Div. 1
WDB25V3C	90°C Trip Point	PTC	1/8" NPT	Class II Div. 1



Bearing Temperature Sensors

BETTER BY DESIGN



Sensor Installed on Conveyor Bearing



Example of Bearing Failure

TECHNICAL SPECIFICATIONS

WDB1 and WDB2 Series Bearing Temperature Sensors

NTC Sensors	
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

PTC Sensors	
Resistance at 60°C:	≤ 250 Ohms
Resistance at Trip Point:	≥ 2,000 Ohms
Sensing Voltage:	5 to 25 VDC
Current Draw:	20 mA

PT100 Sensors	
Resistance at 0°C:	100 Ohms
Resistance at 100°C:	138.4 Ohms
Sensing Voltage:	Via Transducer
Current Limit:	1 mA

NOTE: WDB Series 2 sensors are plated steel bodies with 1/2" NPT conduit entries and are CSA / NRTL Class II Div 1 Groups E, F, and G approved.

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



T500 Hotbus Elite



Watchdog Elite



T400 Elite