

Surface Temperature Sensor

BETTER BY DESIGN

WDB7 Series Lug Style Surface Temperature Sensor

APPLICATION

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

METHOD OF OPERATION

The WDB7 series is a lug style NTC thermistor or platinum RTD (PT100) type for continuous temperature monitoring. It is designed to bolt directly onto a bearing housing, motor, gearbox, or machine casing. The mounting hole is 5/16" from the factory, but can be drilled up to 1/2" if needed. The sensor can be connected to a PLC or to a hazard monitoring system, such as 4B's T500 Hotbus Elite, Watchdog Elite, or T400 Elite. The connections are not polarity sensitive therefore special connections requirements are eliminated. The WDB7 series is approved for use in Class II, Div 1 Groups E, F, and G dust hazard locations.

FEATURES

- ▶ Surface Mount Installation
- ▶ 5/16" to 1/2" Bolt Entry
- ▶ 1/2" NPT Conduit Entry
- ▶ Continuous Temperature Monitoring
- ▶ CSA Class II Div. 1 Approved

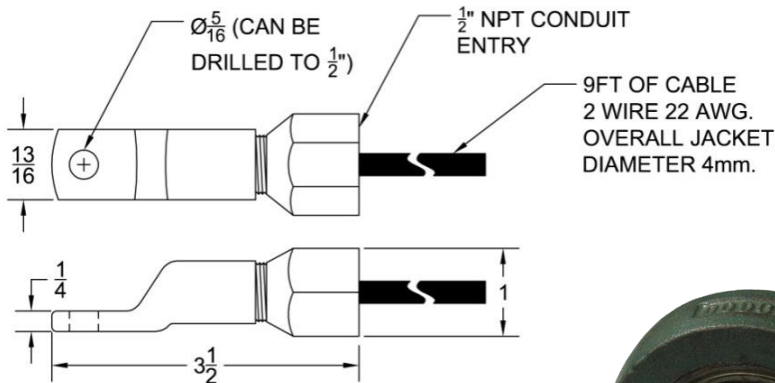
PART NUMBERS/ACCESSORIES

- ▶ WDB70V3C - NTC Type
- ▶ WDB79V3C - PT100 - RTD Type



Surface Temperature Sensor

BETTER BY DESIGN



Example of Bearing Failure



WDB70V3C Installed on Bearing Housing

TECHNICAL SPECIFICATIONS

WDB7 Series Surface 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 (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 (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