

HOT BEARING SENSOR Information Sheet

As part of a program of ongoing product development, the hot bearing sensors have undergone a design change. The improvements include a change in the specification of the sensor cable. The cables are now color coded for easier recognition and also to meet more stringent design requirements. The table below lists the available sensor types, their new cable color and design specification.

Part No.	Type	Temperature	Cable Color
WDB20V3C	NTC	95°C/203°F	BLUE
WDB21V3C	PTC	50°C/122°F	RED
WDB22V3C	PTC	60°C/140°F	RED
WDB23V3C	PTC	70°C/158°F	RED
WDB24V3C	PTC	80°C/176°F	RED
WDB25V3C	PTC	90°C/194°F	RED



Each PTC sensor typically has the following electrical specification (using the 80°C/176°F version)

Resistance at 60°C/140°F	-	250 Ohms Max.
Resistance at 100°C/212°F	-	2000 Ohms Max.
Maximum Continuous Operating Temp	-	70°C/158°F
Maximum Short Time Operating Temp	-	95°C/203°F
Maximum Sensing Voltage	-	24v DC
Sensing Current.	-	1 ma Typical (see note)
Fixing Thread.	-	1/8" NPTF.
Cable	-	2 Core + Drain wire. 3Mtr. (9ft) Long.
Conduit Entry	-	½" NPT.
Weight	-	7 oz. (0.2Kg)
Protection	-	ATEX for use in Europe. CSA Class II Division1, Groups E, F and G for use in the United States and Canada.

As a result of the cable change, the colors of the cores have also changed. The table below provides a comparison between the old cable colors and the new cable colors.

White Cable (Old)	Red/Blue Cable (New)	Watchdog (Typical)
Brown	Yellow	4A (Zone 1)
Blue	Clear/White	5 (+ 24)
Green/Yellow	Drain Wire	1 (GND)

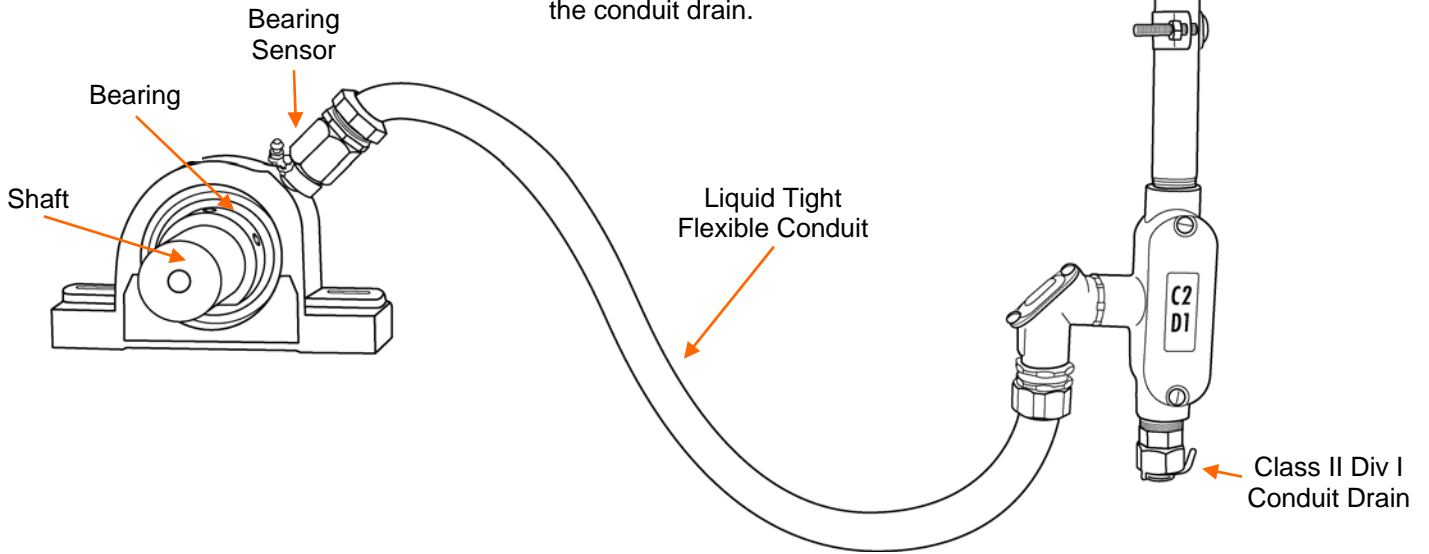
The drain wire is not strictly necessary but may be connected if required.

NOTE: Sensing currents greater than 1ma will cause self heating and may affect the temperature sensing accuracy.

Conduit systems can channel water due to ingress or condensation directly to sensors, which will affect performance over the lifetime of the sensors. As such, the installation of low-point conduit drains is recommended (see below).

Correct Installation

Bearing sensor is above the conduit drain.



In-Correct Installation

Water can flow through the flexible conduit to the bearing sensor.

