

Universal Bearing Monitor



Industrial plants have large numbers of critical bearings. Unmonitored bearings can fail unexpectedly causing expensive down time. Moreover in many plants undetected failures can cause severe and costly damage to the asset. The Gyrometric Universal Bearing Monitor is capable of giving warnings that the bearing will fail within a limited time period, but can also warn when failure actually happens and very rapidly send out a shut down signal to the monitored plant. The device monitors bearings of all types - Ball and roller bearings and solid bearings at a very wide range of speeds down to very low rotational speeds. The method is entirely digital.



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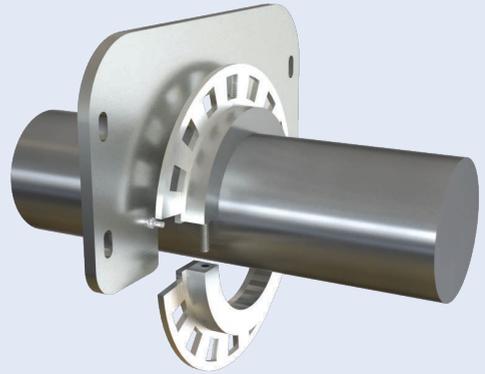
Detection of bearing wear is automatic, and visual and electrical outputs warn of preset limits being exceeded. Typically the warning level is set for predicting bearing failure within a limited number of days, while the alarm is used to alert engineers that the bearing has actually failed. The prediction limits set will be based on the amplitude of vibrations at critical frequencies in the case of rolling contact bearings, and on shaft displacement in the case of solid bearings. The alarm limits are based on measurement of actual shaft run out.

Alarm outputs may be used to shut down equipment as a safeguard.

Data collection is from a steel encoder disk which clamps on to the shaft. A range of clamp-on rings are offered to cover standard shaft sizes off the shelf. Non standard diameters are accommodated by boring out standard rings. Sensors are preassembled to standard "C" brackets and prewired.



Control Box and connection box



Set up for the customer is simply to clamp on the encoder ring, and mount the sensor bracket. They then plug in their laptop and answer a series of simple questions: is the bearing solid or has it got rolling elements?

What is the bearing standard reference number?

That is it.

Specification

- Power Supply - 18-32v DC 1 amp
- Environmental - Enclosures and sensors are designed to IP67 with a temperature range of -40 to +60 degrees C
- Warning and alarm relay output contacts - Up to 30 volts 3 amps
- Communications over ethernet

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