

Asset Protection in an Oil Refinery: Wirelessly Measuring the Compressor Motor Bearing Temperature in an Alki-Unit



“Having confidence in Honeywell’s wireless products and in the local support made all the difference. Buying from an authorized Honeywell distributor, such as Lesman, isn’t just about the product - it’s about the after-purchase support, too.”

Honeywell XYR™ wireless transmitters remove the barriers to monitoring variables where traditional transmitters are too costly to implement. They’re designed for applications with no access to power, hazardous or remote locations, where instrumentation changes are frequent or where manual readings are taken today.

XYR 5000 wireless transmitters reliably and securely transmit up to 2000 feet on a 3-5 year battery life with an accuracy of $\pm 0.1\%$. You’ll quickly and safely monitor process areas and assets you never imagined possible and receive the following benefits:

- Reduce installation, maintenance and operating costs
- Improve product quality
- Meet regulatory requirements
- Ensure high uptime
- Enhance flexibility

Challenges

A refining customer suspected that past compressor failures were due to failing bearings. The cost of compressor failure and replacement is estimated at over \$1 million per unit. The most accurate way to confirm the problem would be to monitor the bearing temperature. By monitoring bearing temperature, the customer could predict failure and potentially prevent it by implementing a preventive maintenance program.

Because hazardous gases are present near the compressor unit, the application must be treated as explosive, and wiring between the compressor and the control room must meet Class I, Div 1 spec. This makes the wiring costs extremely high and the time needed to wire the transmitters quite lengthy. The cost to hard-wiring the 32 transmitters required to monitor the critical temperatures soon became prohibitive.

OneWireless Solution

Honeywell XYR 5000 wireless transmitters were the obvious solution. They eliminated nearly \$100,000 in wiring costs and enabled the customer to bring the critical temperature information into the existing DCS system for monitoring and alarming. The Honeywell system provides the field data needed at a fraction of what a hard-wired solution would cost. The installation and commissioning time was also greatly reduced.



The customer’s engineering group had full confidence in the Honeywell brand for its wireless solution and had worked with the local authorized distributor (Lesman Instrument Company) enough to know the capability of their local support team. Lesman and Honeywell field support engineers performed the configuration in a matter of hours, making the startup quick and painless.

More Information

For more information on Honeywell's OneWireless solutions, visit our website www.honeywell.com/ps/wireless, or contact your Honeywell account manager.

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SO-08-26
August 2008
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