

Rotating Drier Wireless Monitoring Solution

Temperature Measurement in various industries

Problem: Temperature Measurement in a Moving Drum

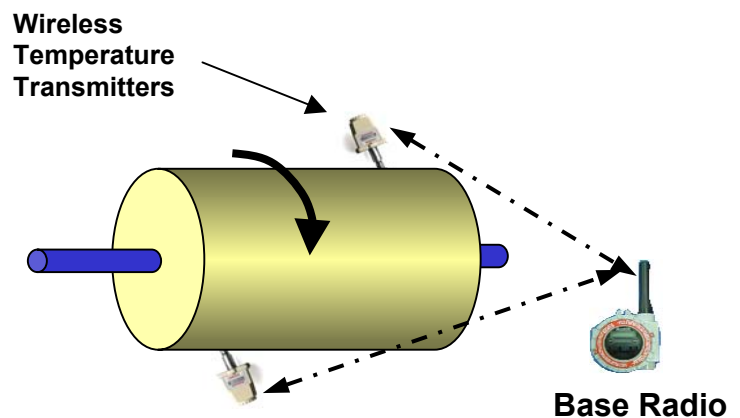
Process components in the chemical industry take many forms. Regardless of this, a variety of measurements must be made including temperature, pressure, flow, viscosity, density, etc. In one typical application, the temperature of a rotating drier must be monitored to ensure that the proper temperature is reached and maintained during the drying process. In many cases, the drum is maintained at a partial vacuum to speed the drying process. A key problem for process engineers is to identify a method for taking temperature measurements on the drum while minimizing the use of expensive and unreliable wiring and electrical linkages. Additionally, many temperature measurements on each rotary drier are required contributing to even greater cost and complexity.

Solution: Cost Effective Honeywell Wireless Temperature Transmitters

The cost of wiring for temperature measurement on a rotating drier is prohibitively expensive. Honeywell XYR 5000 Wireless Temperature Transmitters solve this problem as they can be mounted on rotary driers for a tiny fraction of the cost for traditional temperature measurement solutions. With this savings, many more temperature transmitters can be located on each drum thereby increasing the amount of process information. Additionally the 3-5 year battery life of the Honeywell XYR 50000 Wireless Transmitters greatly lessens the need for periodic transmitter maintenance.

Honeywell XYR 5000 Wireless Temperature Transmitters can accurately measure to within 0.1 % thereby maximizing process monitoring performance. Rotational speeds of 10 to 30 RPM can easily be accommodated.

Honeywell Wireless Transmitters meet all the technical requirements of the temperature measurement application while fitting neatly within the budgetary limits.



Honeywell XYR 5000 Wireless Temperature Measurement on a Rotating Drier

The decision to use Honeywell Wireless Transmitters is a natural one from the standpoint of performance and economy. Key reasons for the choice of the Honeywell Wireless Transmitters are:

- Complicated and unreliable wiring of the temperature sensors to the rotating drier are avoided completely. In addition, operating savings of \$10 to 40 per foot in wiring to the control room are realized. This can easily amount to many thousands of dollars for a new installation.

- Reliable and secure performance using Frequency Hopping Spread Spectrum (FHSS).

- Easy configuration, using local integral buttons. After basic configuration such parameters as temperature range and engineering units can be made remotely from the Wireless Management Toolkit (WMT) Software with no further contact with the transmitter necessary.

- Self test capability with failsafe diagnostics.
- Powered by C size 3.6 VDC Lithium batteries with expected life of up to 5 years.

Honeywell Wireless Transmitter Benefits

- **Improved performance** with superior accuracy for remote applications.
- **Maintenance cost decreased** through higher reliability and stability with self-diagnostics.
- **Installation cost lowered** as the Honeywell Wireless Transmitters can be simply mounted like any temperature transmitter, but no wiring is required.
- **Ease of configuration** with integral push buttons and local display.
- **Accuracy of 0.1%**, suited for most applications.
- **Excellent service** through the extensive Honeywell sales and service network

Additional Benefits from Use of the Honeywell Wireless Solution:

Self-Diagnostics

- **Low Battery Alarm**– Indicates the need to replace the battery
- **Contains extensive self-checking software and hardware** that continuously monitors the operation. Any sensor or device parameter out of spec is identified and reported

Broad Operating Temperature Range

- -40 °F to +185 °F (-40 °C to +85 °C)

Rugged Construction

- 316 L, 316 or 17-4 pH wetted parts
- GE Lexan housing (passes UL 746C “Outdoor Weatherability Specification”).



XYR 5000 Wireless Temperature Transmitter

Honeywell Economical Wireless Level Solution Details

Description	Model
Honeywell Wireless Temperature Transmitter with 2.5” RTD probe /well	WT532-RSNAPB
Honeywell Base Radio with mounting bracket, RS485 to RS232 converter	WBR-MB, RS

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