

Wireless Temperature Measurements for Rotating Kilns



Quality problems arise when manufacturers can not accurately measure the internal temperature of a kiln in a timely manner. By the time the incorrect temperature is discovered, a large quantity of product could have been processed, resulting in scrap or rework costs.

One end-user solved this problem with wireless technology. Their equipment rotates at 60 to 80 rotations per hour with skin temperature in excess of 500°F. Because the kiln rotates, and the ambient temperature where the transmitter must be mounted is so high, no reliable technology has been available until now to provide the information they need.

Wiring temperature sensors from the kiln to the control room costs an average of \$40 per foot. Each new sensor installation easily costs many thousands of dollars. If these wiring costs could be reduced or eliminated, the savings could be applied to improving the temperature measurement by the addition of more measurement points in the kiln. More temperature points increases the amount of process information available to the operator and ensures a more consistent product.

The ability to wirelessly measure internal kiln temperature offers a window into a process that has not been available before. The result is a major increase of within spec throughput, reduced scrap, and considerably less energy usage.

More Information

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

Automation & Control Solutions

Process Solutions

Honeywell

2500 W. Union Hills Dr.

Phoenix, AZ 85027

Tel: +1-602-313-6665 or 877-466-3993

www.honeywell.com/ps

Due to the wireless transmitter's design, setup and start-up requires very little time, installing within hours. Other attempts to improve monitoring requires weeks to months to install. The configuration software package is also used as a data acquisition package. It is capable of storing data for up to 90 days and exporting to a spreadsheet format for long-term storage, eliminating the need for a separate recording device.

A measurement that had been long desired can now be made with the application of wireless transmitter technology, resulting in improved business performance.

Improved Product Quality

Honeywell OneWireless 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.

Safely monitor process areas and assets to realize:

- Reduced installation, maintenance and operating costs
- Improved product quality
- Compliance to regulatory requirements
- Ensured high uptime
- Enhanced flexibility