

OneWireless Gauge Reader



Honeywell's OneWireless Gauge Reader non-invasively clips to the front face of existing gauges to enable remote monitoring of gauge readings. Installation takes minutes – avoiding removing old gauges, breaking pressure seals, performing leak checks, running wires or interrupting the underlying process. Adapters are available to fit most size and type of manual gauges for pressure, temperature, vacuum or other measurements.

Manufacturing plants can contain hundreds or thousands of manual gauges that monitor a variety of parameters related to equipment health, consumables usage, or non real-time process variables, such as:

- Heat exchanger or coolant loop temperatures
- Pump or compressor pressures
- Air handler flow rates
- Boiler pressure and steam flow rates
- Hydraulic line pressures
- Compressed air system pressures
- Vacuum pump suction
- Calibration or process gas cylinder levels

Many of these applications are important to the plant's overall uptime, yield and throughput. However, since measurements are manually collected, they are not systematically monitored, trended nor alarmed. Abnormal situations may remain undetected, leading to unsafe conditions, unplanned downtime or asset degradation. Additionally, manually monitoring consumables in cylinders and tanks makes it difficult to accurately track and optimize usage, resulting in unnecessary expense.

Although many plant operators would like to replace these manual gauges with transmitters, this can be cost prohibitive or too disruptive to existing operations.

The OneWireless Gauge Reader dramatically reduces the cost, time and disruption traditional with automating gauge monitoring. Installation takes minutes to complete and avoids removing old gauges, breaking pressure seals, performing leak checks, running wires or interrupting the process.

The OneWireless Gauge Reader integrates seamlessly with the OneWireless architecture for scalability and compatibility with future wireless standards.



Enhance Asset Utilization. Improve Energy Efficiency. Ensure Safety

Improve Asset Management and Uptime – Detect potential events earlier with more frequent monitoring and trending of parameters and enable notification and correction.

Troubleshoot Systems Quickly - Identify time and related events leading to failures with historical data.

Save Energy - Monitor high energy consuming areas such as compressed air systems for optimal operation/pressures: not too high to waste energy, but not too low to affect process.

Audit Energy Efficiency - Gather baseline energy consumption data such as steam, chiller or air handler temperature and flow quickly and non-invasively.

Reduce Consumables Usage - Monitor gas cylinders, and change them out at the right time to optimize usage and avoid running out of gas.

Improve Yield and Quality - Feed more extensive data into statistical process control models or advanced control models for reduced variation and improved yield and quality.

Improve Employee Safety and Efficiency - Minimize the visits to hazardous or remote locations and redeploy employees to more critical tasks. In addition, ensure that tanks and cylinders are at a safe pressure.

OneWireless Integration

The OneWireless Gauge Reader can connect to Honeywell's OneWireless network. This robust network provides a universal, simple, and efficient network with these features:

- One strategic network that supports multiple uses, including sensors and 802.11 Wi-Fi devices such as the OneWireless Gauge Reader
- Scales from a few field instruments to thousands to get started now but still prepare for future
- Operates in noisy radio frequency environments for reliable communication
- Provides predictable power management to ensure uptime and optimize maintenance
- End-to-end industrial security to protect plant information and ensure safety
- Open architecture and protocol integration to provide choices for standard and cost-effective solutions

Key Specifications

Setup:

- Quick installation – clamp to existing gauge non-invasively
- Compatible with most circular gauges from 1.5 to 4.5 inches (3.8 to 15.25 cm) in diameter
- Minimum installation components (one each of the following): OneWireless Gauge Reader, Honeywell OneWireless Multinode and OneWireless Gauge Reader Application Gateway
- Local and remote device configuration for flexibility
- Large always-on LCD display with password protected front panel controls
- Wireless hand-held configurator tool for easy setup

Wireless Communications:

- Network: 802.11b/g WiFi compatible
- Compatible with OneWireless Multinode network infrastructure
- Addressing: Static IP or DHCP
- Range: No less than 1,000 ft. (305 m) by line of sight
- Security/Encryption:
 - WEP – 64, 128-bit encryption
 - WPA-PSK
 - WPA (802.1x) - Dynamic Key
 - WPA2 / 802.11i
 - AES-CCM & AES-CCMP with TKIP

Powering and Acquisition Modes:

- Sample mode: Programmable from one-minute to 18 hours
- Accuracy: +/- 2% of full scale of manual gauge reading in addition to the accuracy of the existing gauge
- Battery: 2 x Lithium-based
- Battery Life: 2-5 year life for typical sampling rates (15 minutes or greater)
- Low battery alarm
- Self-checking software and hardware continuously monitor operation to identify and report device parameters that are out of specification

Mechanical and Environmental:

- Protection: IEC IP66 compliant (outdoor, dustproof, water resistant).
- Enclosure: ABS with UV and flame retardant inhibitors
- Dimensions:
 - 2.6 (h) x 2.6 (w) x 1.3 (l) inches
 - 65 (h) x 65 (w) x 33 (l) millimeters
- Vibration: up to 4G from 15 Hz to 2000 Hz
- Shock: 10 g operational; 20 g non-operational
- Humidity: 0-100% RH
- Operating Temperature: -20C to +70C
- Weight: 5.5 oz (156 g) including batteries and adapter

Approvals:

- CE Conformity with the following directives:
 - R&TTE 1999/5/EC
 - EMC 2004/108/EC
 - Telecommunications Directive (1st Edition, 2002-02, Industrial Location) per
 - EN300 328 V1.7.1
 - EN301 893 V1.3.1
 - EN 301 489-17 V1.2.1
 - EN301 489-1 V1.6.1
 - EN61326-1
- Wireless: FCC Class B, ETSI
- Materials: RoHS Compliant
- Expected by end of 2009: FM, UL, Class I, Division 2 and ATEX Class 1 Zone 2, NEMA 4X

The OneWireless Gauge Reader is not intended for applications where frequent data updates are required or the application is mission or safety-critical.

OneWireless is a trademark of Honeywell International Inc.

More Information

To learn more about Honeywell's wireless solutions, visit www.honeywell.com/ps/wireless or contact your Honeywell account manager.

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