

NEW PRODUCT RELEASE

WirelessHART® gateway- RAD-WHG/WLAN-XD

AUGUST 2010

WIRELESS

System integrator partner brief

Description

All WirelessHART networks need a gateway to communicate and convert information from the WirelessHART network to another network medium. Phoenix Contact's new WirelessHART Gateway RAD-WHG/WLAN-XD offers gateway functionality between the WirelessHART network and Ethernet or WiFi 802.11 mediums using Modbus TCP or HART UDP (coming soon) protocols. This converted data is then interfaced to an AMS (Asset Management System) that is typically used to maintain field devices. Unlike other gateways on the market, it features integrated WiFi connectivity, HART modem programmability and is DIN rail-mountable.

Process industry professionals can use the new gateway to retrofit existing HART networks or to lower installation cost of new networks.

To retrofit an existing HART installation, WirelessHART adapters are used. These adapters allow the 4-20 mA wire from the field instrumentation to remain installed while the adapter provides the HART data over the WirelessHART network.

For new installations, WirelessHART instruments can be used. These are often battery-powered and provide information over the wireless network. This accessibility of HART data from remote instruments provides more process details and reduces maintenance cycles by creating a more efficient process.



Features/benefits

- **802.11b/g Client (supports ad hoc) backhaul technology**
- **Supports WEP, WPA and 802.11i (WPA2) 128-bit AES encryption**
- **Supports 250 WirelessHART devices**
- **Simple programming/diagnostics using embedded web server or HART programmer (coming soon)**
- **Converts HART to Modbus TCP**
- **12-30V DC powered**
- **Operating temperature of -40 to 70 degrees Celsius**
- **ATEX/FM/CSA Class I, Zone 2**

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Why product was developed

The creation of the WirelessHART protocol along with the global acceptance of its standardization in IEC 62591 Ed. 1.0, makes it clear that WirelessHART will be adopted by industrial end users as a standard for deploying wireless sensor networks. To support these deployments, it's necessary to have methods of distributing WirelessHART devices and collecting the sensor data locally to be backhauled to a different area of the facility where the central control room or asset management system resides. WirelessHART gateways are used in these applications.

Phoenix Contact fulfills this need by combining our competencies in industrial wireless and industrial networking technology to become one of the first companies to introduce a WirelessHART gateway product to the market.

Application

The WirelessHART gateway creates connectivity between an AMS and WirelessHART end devices. The illustration at right shows the different backhaul and networking strategies for the RAD-WGH/WLAN-XD.



A custom-made IP67 stainless steel enclosure for installing the gateway in outdoor areas of the factory is coming soon.

