



Wireless HART Multi-drop Gateway

6207/6227-WA-HART(2)

The ProLinx Wireless HART Multi-drop Gateway creates a powerful connection between devices on a wireless network and HART devices.

The PWP modules offer one-to-one or one-to-many interconnect scenarios. Data is exchanged between devices and/or networks using a shared common database and an efficient but powerful wireless protocol. This common database provides the "backbone" communications for various field devices using different networks.

The HART protocol driver works as a Master on four (HART) or eight channels (HART2 – not available on certain configurations) per interface card, depending on implementation. Each channel is individually configurable.

ProSoft Wireless Protocol

ProSoft Wireless Protocol (PWP) offers versatility where a mix of control devices requires cooperation with each other. This involves sharing of information across the applications regardless of device or network type, often at high speed, and with high reliability. Wireless bandwidth utilization is optimized by using efficient communication methods. The protocol supports Unicast, Broadcast and Multicast group messaging. Efficiency is based on the fact each device on the "wireless" network can produce these types of messages and each device determines which of these messages to consume.

HART

The HART Master Protocol exists in 4 channel implementations with HART2 allowing 8 channels. This driver can be configured on an individual channel basis to operate as a HART Master Station and supports all the available HART commands including Universal, Common Practice and Device Specific Commands. Each HART channel is independently configured to interface with the internal database in the module.

The auto-poll mode allows the module to automatically collect data from each HART instrument on the channel and store the data in the module's database without the use of user commands. The module automatically generates HART commands 0, 3, 13, 14 and 15.

General Parameters

Communication parameters	Number of HART Preambles: 2 to 50 Enable Handheld: Y or N Primary Master: Y or N
Configurable Parameters per Channel	Auto-Poll Enable, Short / Long Address Retries, Retries After Error Poll Time After Error, Number of Commands, Slave List Error Pointer

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The ProLinx High Speed Wireless to HART Multi-drop Gateways create a powerful connection between devices on an wireless network and HART Multi-drop devices. The module provides one wireless port and four HART Multi-drop channels.

The ProLinx 6000 series of wireless gateways will provide users more flexibility than ever before seen in wireless solutions. Users will be able to connect various field devices using different networks or protocols and share data between these devices "over-the-air." This is accomplished by selecting the appropriate protocol/network that provides a connection to the hardware device, the protocol is then converted into a common radio packet, "ProSoft Wireless Protocol" (PWP) or to standard industry protocols such as HART to other wireless gateways in the system.

How to Contact Us: Sales and Support

All ProSoft Technology® products are backed with unlimited technical support. Contact our worldwide Technical Support team directly by phone or email:

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HART Driver	
Command List	Up to 100 fully configurable commands per channel
Polling of command list	User configurable polling of commands, including disabled, continuous, on change of data (write only) and dynamically user or automatic enabled.

HART® is a registered trademark of the HART Communication Foundation

General Specifications – Radio Modules

These modules utilize a full function wireless network card, supporting RF data rates up to 11 Mbps. The modules function as a client, providing an ultra-fast wireless solution for the most demanding industrial applications.

These modules allow you to connect various field devices using different networks or protocols and share data between these devices "over-the-air." This is accomplished by exchanging shared common database information over-the-air with ProSoft Technology's efficient but powerful wireless protocol.

Specification	Description
Frequency	2.4 GHz band (2400 to 2483.5 MHz)*
Wireless medium	DSSS – Direct Sequence Spread Spectrum (802.11b)
Output power	32 mW (15 dBm)
Channel data rates	11, 5.5, 2, 1 Mbps
Channels – user selectable	1 through 11* **
Security	PWP + WEP 64/128 Encryption with WEP key rollover management
Antenna Ports	(2) RP-SMA connectors, automatic antenna diversity
Bit Error Rate (BER)	Better than 10 ⁻⁵

* Varies with country regulation

** Some European countries such as France allow fewer channels

Hardware Specifications

Specification	Description
Power Supply	24 VDC nominal, 18 to 36 VDC allowed. Positive, Negative, GND Terminals
Current Load	500 mA max@ 24 VDC
Operating Temperature	-20 to 50°C (-4 to 122°F)
Storage Temperature	-40 to 85°C (-40 to 185°F)
Relative Humidity	5 to 95% (non-condensing)
Dimensions	Standard: 5.20H x 2.07W x 4.52D inches (13.2cmH x 5.25cmW x 11.48cmD) Extended: 5.20H x 2.73W x 4.52D inches (13.2cmH x 6.934cmW x 11.48cmD)
LED Indicators	Power and Module Status, Application Status, Serial Port Activity LED, Serial Activity and Error LED Status, RF Link Status, RF Data Status
Configuration Serial Port	Mini-DIN RS-232 only No hardware handshaking

Specification	Description
Application Serial Ports	Mini-DIN, RS-232/422/485 RS232 handshaking configurable RS422/485 screw termination included
Antenna Ports	Two RP-SMA connectors, with automatic antenna diversity.
Port Isolation	2500V Opto-Isolators 500V Power Supply Isolation
Shipped with each unit	Mini-DIN to DB-9M cables per serial port, 4 ft RS-232 configuration cable, 2.5mm screwdriver, CD (docs and Configuration utility), RS-422/485 DB9 to Screw Terminal Adaptor (1 to 4, depending on ports)

HART

HART modules ship with the necessary screw terminal adapters to connect your devices directly to the gateway.

ProSoft Configuration Builder

ProSoft Configuration Builder (PCB) provides a quick and easy way to manage module configuration files customized to meet your application needs. PCB is not only a powerful solution for new configuration files, but also allows you to import information from previously installed (known working) configurations to new projects.

Additional Products

ProSoft Technology offers a full complement of hardware and software solutions for a wide variety of industrial communication platforms.

Visit our web site at <http://www.prosoft-technology.com> for a complete list of products.

Ordering Information

To order this product, please use the following:

6207-WA-HART Wireless HART Multi-drop Gateway
6227-WA-HART2

To place an order, please contact your local ProSoft Technology distributor. For a list of ProSoft distributors near you, go to <http://www.prosoft-technology.com>

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May 03, 2007