





# DH-485 to HART Multi-drop Gateway 5107/5127-DH485-HART(2)

The DH485-HART modules are the ideal solution for the many applications where DH-485 connectivity can be used to integrate HART Multi-drop devices into a system. The DH-485 gateway is a powerful module designed with both Master and Slave support, enabling easy connection to Rockwell Automation PLCs (CLX, SLC, PLC, CPLX, and similar devices). In combination with the HART device support, the module provides a very powerful interface to the over two million HART devices which are in use in the industrial marketplace today. Applications for the module are found in most industries, especially Manufacturing, Oil and Gas, Electrical Power and Food Processing.

# **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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# DH-485 to HART Multi-drop Gateway

# 5107/5127-DH485-HART(2)

The ProLinx DH-485 to HART Multi-drop Gateway creates a powerful connection between devices on a DH-485 network and HART devices. This stand-alone DIN-rail mounted protocol gateway provides one DH-485 configurable serial port and up to eight configurable HART Multi-drop channels.

The DH-485 protocol driver supports the Master and the Slave modes of the protocol on each port, providing powerful data transfer capability with Rockwell Automation PLCs and HMIs. All DH-485 ports are individually configurable. User configurable data mapping make the interface an easy to use and powerful data transfer tool.

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.

#### DH-485

The DH-485 protocol in its native form is a peer to peer token passing network. The ProLinx DH-485 driver accesses the network functioning either as a Master or as a Slave.

General Protocol Information	
Error Checking	BCC and CRC
Communication Parameters	Local Station ID: 0 to 31
	Port 0 Baud Rate: 110 to 38.4K baud
	Port 1 Baud Rate: 110 to 19200 baud
	Stop Bits: 1 or 2
	Data Size: 7 or 8 bits
	Parity: None, Even, Odd
	RTS Timing delays: 0 to 65535 ms

## DH-485 Slave Mode

In Slave mode, the module accepts commands from one or more Masters to read/write data stored in the module's internal data memory. In this mode, the ProLinx unit is answering DH-485 commands and has the appearance of an SLC processor to the network.

#### DH-485 Master Mode

In Master mode, the ProLinx DH-485 driver will actively gather data from other devices on the network, controlling the read/write data transfer between the gateway and other DH-485 devices, such as SLC processors. Data transfer can be initiated and executed with the other devices without any ladder logic being required in the Rockwell Automation slave hardware.



DH485 Functioning as a M	laster
Command List	Up to 100 command per master port, each fully configurable for function, slave address, register to/from addressing and word/bit count
Polling of command list	User configurable polling of commands, including disabled, continuous and on change of data (write only)

#### **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	Auto-Poll Enable, Short / Long Address
per Channel	Retries, Retries After Error
	Poll Time After Error, Number of
	Commands, Slave List Error Pointer

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**

The ProLinx Communication Modules provide connectivity for two or more dissimilar network types. The modules, encased in sturdy

extruded aluminum, are stand-alone DIN-rail mounted protocol gateways, providing communication between many of the most widely used protocols in industrial automation today.

# **Hardware Specifications**

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Specification	Description
Dimensions	Standard: 5.20H x 2.07W x 4.52D in.
	(13.2cmH x 5.25cmW x 11.48cmD)
	Extended: 5.20H x 2.73W x 4.52D in.
	(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
Configuration Serial Port	DB-9M RS-232 only
	No hardware handshaking
Ethernet Port (Ethernet	RJ45 Connector
modules only)	Link and Activity LED indicators
Application Serial Ports	RS-232/422/485
• •	RS-232 handshaking configurable
	RS-422/485 screw termination included
Serial Port Isolation	2500V RMS port signal isolation per UL
	1577
	3000V DC min. port to ground and port to
	logic power isolation
Shipped with Each Unit	Mini-DIN to DB-9M serial cables
	4 ft RS-232 configuration cable
	2.5mm screwdriver
	CD (docs and Configuration utility)
	RS-422/485 DB-9 to Screw Terminal
	Adaptor (1 or 4, depending on ports)
Shipped with Each Unit	3000V DC min. port to ground and port to logic power isolation  Mini-DIN to DB-9M serial cables  4 ft RS-232 configuration cable  2.5mm screwdriver  CD (docs and Configuration utility)  RS-422/485 DB-9 to Screw Terminal

# **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.

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