

4107/5107-MCM-HART

Modbus Master/Slave to HART Multi-drop Gateways

The ProLinx Modbus Master/Slave to HART Multi-drop Gateways create a powerful connection between devices on a Modbus network and HART devices. The module provides one serial port and up to eight configurable HART channels.

Modbus TCP/IP

The Ethernet driver interfaces with a common internal database in the module. This permits the sharing of data across many different protocols and networks.

Server

The MNET module supports server functionality using the reserved Modbus TCP/IP service port 502, as well as service port 2000 to support the TCP/IP encapsulated Modbus protocol that is supported by several HMI manufacturers. Services supported in the module permit client applications (i.e., HMI software packages, Quantum processors, etc.) to read from and write to the module's database.

Data in the module's internal database is accessible for read and write operations by any node on the network supporting the MBAP (service port 502) or MNET (service ports 2000/2001) TCP/IP protocols.

There is no configuration of the MNET module required to implement Server functionality other than setting up the network and database parameters in the user configuration file.

Modbus TCP/IP Server

General	The server driver supports connections to Modbus TCP/IP clients supporting Service Port 502 using the standard MBAP protocol, and clients supporting Modbus on Service Port 2000. Supports up to five (5) independent server connections for Service Port 502 Supports up to five (5) independent server connections for Service Port 2000
Configurable Parameters	Module IP Address Modbus address offsetting

Client

The module supports a client connection on the TCP/IP network to interface with processors (and other server based devices) using a user constructed command list of up to 100 entries.

Modbus TCP/IP Client

General	The client driver supports the active reading and writing of data with Modbus TCP/IP compatible devices. One client connection available (connect up to 100 servers/devices with 100 commands)
Configurable parameters	Number of active commands (Up to 100 for client) Min Command Delay Response Timeout Retry Count Command Error Pointer
Command List	Up to 100 commands on the Client port, each fully configurable for function, Server IP address, Service Port, register to/from addressing and word/bit count

HART

The HART Master Protocol exists in 4 and 8 channel implementations. 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 Address Retries Long Address Retries Retries After Error Poll Time After Error Number of Commands Slave List Error Pointer

HART Driver	
Command List	Up to 100 command per channel, each fully configurable for function, slave address, register to/from addressing and word count for Floating Point or Integer Data
Polling of command list	User configurable polling of commands, including disabled, continuous, on change of data (write only) and dynamically user or automatic enabled.