



## DH-485 to Modbus TCP/IP Gateway

### 5201-DH485-MNET

*The DH-485-MNET modules are the ideal solution for the many applications where Modbus TCP/IP connectivity can be used to integrate a DH-485 device into a system. The Modbus TCP/IP gateway is a powerful module designed with both Client and Server support, enabling easy connection to other Modbus devices (Modicon processors and many others). In combination with the DH-485 device support, the module provides a very powerful interface to the many DH-485 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.*

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## DH-485 to Modbus TCP/IP Gateway

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The ProLinx DH-485 to Modbus TCP/IP Gateway creates a powerful connection between devices on a Modbus TCP/IP network and a DH-485 device. This stand-alone DIN-rail mounted protocol gateway provides one DH-485 configurable serial port and one Ethernet port.

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 Modbus TCP/IP protocol driver can interface many different protocols into Schneider Electric Quantum processors as well other solutions supporting the protocol. The MNET driver supports Client and Server connections, and when coupled with the Web option provides a web/ftp interface as well.

### 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 Master

|                         |                                                                                                                                        |
|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| 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)                               |

### Modbus TCP/IP

The Modbus TCP/IP driver interfaces with a common internal database in the module. This permits the sharing of data between the Modbus TCP/IP and other networks and devices.

#### Modbus TCP/IP Server

|                         |                                                                                                                                                            |
|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| General                 | Server supports up to 5 independent connections each to Modbus TCP/IP clients on Service Port 502 using the standard MBAP protocol, and Service Port 2000. |
| Configurable Parameters | Module IP Address<br>Modbus address offsetting                                                                                                             |

#### Modbus TCP/IP Client

|                         |                                                                                                                                              |
|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| General                 | Actively reads and writes data with Modbus TCP/IP compatible devices.<br>One client connection (up to 100 servers/devices with 100 commands) |
| Configurable parameters | Number of active commands, Min Command Delay, Response Timeout, Retry Count, Command Error Pointer                                           |
| Command List            | Up to 100 fully configurable commands on the Client port                                                                                     |

### 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

| Specification         | Description                                                                                                                                     |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| Power Supply          | 24 VDC nominal<br>18 to 36 VDC allowed<br>Positive, Negative, GND Terminals<br>2.5 mm screwdriver blade                                         |
| 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 in.<br>(13.2cmH x 5.25cmW x 11.48cmD)<br>Extended: 5.20H x 2.73W x 4.52D in.<br>(13.2cmH x 6.934cmW x 11.48cmD) |

| Specification                         | Description                                                                                                                                                                                              |
|---------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| LED Indicators                        | Power and Module Status<br>Application Status<br>Serial Port Activity LED<br>Serial Activity and Error LED Status                                                                                        |
| Configuration Serial Port             | DB-9M RS-232 only<br>No hardware handshaking                                                                                                                                                             |
| Ethernet Port (Ethernet modules only) | RJ45 Connector<br>Link and Activity LED indicators                                                                                                                                                       |
| Application Serial Ports              | RS-232/422/485<br>RS-232 handshaking configurable<br>RS-422/485 screw termination included                                                                                                               |
| Serial Port Isolation                 | 2500V RMS port signal isolation per UL 1577<br>3000V DC min. port to ground and port to logic power isolation                                                                                            |
| Shipped with Each Unit                | Mini-DIN to DB-9M serial cables<br>4 ft RS-232 configuration cable<br>2.5mm screwdriver<br>CD (docs and Configuration utility)<br>RS-422/485 DB-9 to Screw Terminal Adaptor (1 or 4, depending on ports) |

### 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:

**5201-DH485-MNET** DH-485 to Modbus TCP/IP Gateway

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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