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Modbus TCP/IP to Modbus Master/Slave Gateway 5201/5202-MNET-MCM(4)

The MNET-MCM modules are the ideal solution for the many applications where Modbus TCP/IP connectivity can be used to integrate Modbus Master/Slave serial devices 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 TCP/IP Devices (Modicon processors and many others). In combination with the Modbus Master/Slave device support, the module provides a very powerful interface to the many Modbus Master/Slave 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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Modbus TCP/IP to Modbus Master/Slave Gateway

5201/5202-MNET-MCM(4)

The ProLinx Modbus TCP/IP to Modbus Master/Slave Gateway creates a powerful connection between devices on a Modbus TCP/IP network and Modbus serial devices. This stand-alone DIN-rail mounted protocol gateway provides one Ethernet port and up to four serial ports.

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.

The Modbus protocol driver supports Master and Slave implementations of the protocol. All Modbus serial ports are individually configurable, providing a very powerful and flexible host or device interface solution.

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 |
| | Modbus address offsetting |
| Modbus TCP/IP Client | |
| General | Actively reads and writes data with Modbus |
| | TCP/IP compatible devices. |
| | One client connection (up to 100 |
| | servers/devices with 100 commands) |
| Configurable parameters | Number of active commands, Min |
| 0 | Command Delay, Response Timeout, |
| | Retry Count, Command Error Pointer |
| Command List | Up to 100 fully configurable commands on |
| | the Client port |
| | |

Modbus Master/Slave

The Modbus driver provides extensive support for both the Master and the Slave implementations of the protocol. The serial port(s) on the gateway can be individually configured to support the Modbus protocol (Master or Slave, RTU or ASCII, Baud rate, etc.).



| General Parameters – Mo | odbus Protocol |
|-------------------------|---|
| Communication | Baud Rate: 110 to 115K baud |
| parameters | Stop Bits: 1 or 2 |
| h | Data Size: 7 or 8 bits |
| | Parity: None, Even, Odd |
| | RTS Timing delays: 0 to 65535 ms |
| Error Checking | RTU mode (binary) with CRC-16 |
| 0 | ASCII mode with LRC error checking |
| Floating Point | Floating point data movement supported, |
| 0 | including configurable support for Enron |
| | implementation |
| Function Codes | 1: Read Output Status |
| | 2: Read Input Status |
| | 3: Read Multiple Data Registers |
| | 4: Read Input Registers |
| | 5: Write Single Bit |
| | 6: Write Single Data Register |
| | 15: Write Multiple Bits |
| | 16: Write Multiple Data Register |
| Modbus 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 | Configurable polling of command list, |
| | including continuous and on change of data, |
| | and dynamically user or automatic enabled. |
| Modbus Slave | |
| Node address | 1 to 247 – software selectable |

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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| Description |
|--------------------------------------|
| 24 VDC nominal |
| 18 to 36 VDC allowed |
| Positive, Negative, GND Terminals |
| 2.5 mm screwdriver blade |
| 500 mA max@ 24 VDC |
| –20 to 50°C (–4 to 122°F) |
| -40 to 85°C (-40 to 185°F) |
| 5 to 95% (non-condensing) |
| 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) |
| Power and Module Status |
| Application Status |
| Serial Port Activity LED |
| Serial Activity and Error LED Status |
| DB-9M RS-232 only |
| No hardware handshaking |
| RJ45 Connector |
| Link and Activity LED indicators |
| |

| Specification | Description |
|--------------------------|--|
| 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) |

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-MNET-MCM Modbus TCP/IP to Modbus **5202-MNET-MCM4** Master/Slave 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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