Modbus TCP/IP to Rockwell Automation Remote I/O Gateway
5210-MNET-RIO

The MNET-RIO modules are the ideal solution for the many applications where Modbus TCP/IP connectivity can be used to integrate a Remote I/O 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 Remote I/O device support, the module provides a very powerful interface to the many Remote I/O 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 Rockwell Automation Remote I/O Gateway

5210-MNET-RIO
The ProLinx Modbus TCP/IP to Rockwell Automation Remote I/O Adapter Gateway creates a powerful connection between devices on a Modbus TCP/IP network and Remote I/O devices. This stand-alone DIN-rail mounted protocol gateway provides one Ethernet port and one Remote I/O port.

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 RIO interface is an adapter (slave) which can be connected to a scanner (master) that controls the data transfer. The module also supports limited high speed data transfer via the Input and Output images.

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 Command Delay, Response Timeout, Retry Count, Command Error Pointer
Command List	Up to 100 fully configurable commands on the Client port

Rockwell Automation Remote I/O

The RIO interface is an adapter (slave) and is connected to a scanner (master) that controls the data transfer. For example, the master/slave relationship can be accomplished using the RIO module (adapter/slave unit) with a Rockwell Automation PLC5 (scanner/master unit). Ladder logic must be programmed into a PLC to perform BTR/BTW commands to receive and transmit data between the module and the PLC. The module also supports limited high speed data transfer via the input and output images.

Software Configurable Parameters	
Rack Number Addressing	0 to 63
Rack Size	¼-rack, ½-rack, ¾-rack and full rack
Starting Group	0,2,4,6
Last Rack	Yes or No
Baud Rate	57.6K, 115K, 230K

Functional Specifications
Supports block-transfers of data with scanner
Supports I/O data movement. Amount determined by rack size configuration
BTW Command – up to 64 words
BTR Command – up to 63 words

Physical Connection	
Remote I/O connector	Standard 3-screw termination connector

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 18 to 36 VDC allowed Positive, Negative, GND Terminals 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. (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

Specification	Description
Configuration Serial Port	DB-9M RS-232 only No hardware handshaking
Ethernet Port (Ethernet modules only)	RJ45 Connector 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)

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:

5210-MNET-RIO   Modbus TCP/IP to Rockwell Automation Remote I/O 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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