

DATASHEET

Modbus TCP/IP to EtherNet/IP Gateway 5201-MNET-DFNT

The ProLinx Modbus TCP/IP to EtherNet/IP Gateway creates a powerful connection between Modbus TCP/IP and EtherNet/IP networks. The module provides one Ethernet port.

The Modbus TCP/IP driver supports Schneider Electric processors as well as most other devices that use Modbus TCP/IP. This implementation allows both Client (Master) and server (slave) configurations using standard Ethernet TCP/IP connections. The gateway can use both Modbus TCP/IP MBAP and Encapsulated Modbus message formats.

The EtherNet/IP protocol supports the Explicit Messaging implementation of the protocol. User-configurable as both a Client and a server, the EtherNet/IP port is a very powerful data transfer tool.



General Specifications

ProLinx[®] Communication Gateways provide connectivity for two or more dissimilar network types. The gateways, encased in sturdy extruded aluminum, are stand-alone, DIN-rail-mounted solutions that provide data transfer between many of today's most widely used industrial automation protocols.

Specifications

The Modbus TCP/IP driver allows multiple independent, concurrent Ethernet connections. The connections may be all Clients, all servers, or a combination of both Client and server connections.

Modbus TCP/IP Client

- Actively reads data from and writes data to Modbus TCP/IP devices using MBAP
- One Client connection with multiple commands to talk to multiple servers

Modbus TCP/IP Server

- The server driver accepts incoming connections on Service Port 502 for Clients using Modbus TCP/IP MBAP messages and connections on Service Port 2000 (or other Service Ports) for Clients using Encapsulated Modbus messages.
- Supports multiple independent server connections for any combination of Service Port 502 (MBAP) and Service Port 2000 (Encapsulated)
- Up to 20 Servers are supported

EtherNet/IP™ Server

In server mode, the gateway accepts commands from one or more Clients to read/write data stored in the gateway's internal registers.

Number of Connections	5
Supported PLC Types	PLC2, PLC5, SLC and ControlLogix file types supported
Internal Database	Data Table File Size: 100 or 1000 words Data Table File Start: N10 to N109 (based on file size set to 100) or N10 to N19 (based on file set to 1000)
CIP Services Supported	0x4C - CIP Data Table Read 0x4D - CIP Data Table Write

EtherNet/IP Client

In Client mode, the gateway controls the read/write data transfer between the gateway and other EtherNet/IP devices.

Number of Clients Supported	1
Command List	Support for 100 commands per Client, each configurable for command type, IP 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).
Other Configurable Parameters	Number of Commands (up to 100 per Client) Min Command Delay Response Timeout Retry Count Command Error Pointer

Modbus TCP/IP

Number of Clients Supported	1
Modbus Commands Supported (Client and Server)	1: Read Coil Status 2: Read Input Status 3: Read Holding Registers 4: Read Input Registers 5: Force (Write) Single Coil 6: Preset (Write) Single Holding Register 15: Force (Write) Multiple Coils 16: Preset (Write) Multiple Holding Registers
Configurable Parameters (Client and Server)	Gateway IP Address Modbus data type starting address offsets Floating-point start address and database offset
Configurable Parameters (Client Only)	Minimum Command Delay Response Timeout Retry Count Command Error Pointer
Command List	Up to 100 fully configurable Client commands
Status Data	Error codes reported individually for each command
Command List Polling	Each command can be individually enabled or disabled; write-only-on-data-change is available



Additional Products

ProSoft Technology® offers a full complement of hardware and software solutions for a wide variety of industrial communication platforms.

For a complete list of products, visit our web site at:
www.prosoft-technology.com

Ordering Information

To order this product, please use the following:

Modbus TCP/IP to EtherNet/IP Gateway

5201-MNET-DFNT

To place an order, please contact your local ProSoft Technology distributor. For a list of ProSoft Technology distributors near you, go to:
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Fax to +33 (0) 5.61.78.40.52

Hardware Specifications

Specification	Description
Power Supply	24 Vdc nominal 18 Vdc to 32 Vdc allowed Positive, Negative, GND Terminals 2.5 mm screwdriver blade
Current Load	500 mA maximum @ 32 Vdc maximum
Operating Temperature	-4°F to 122°F (-20°C to 50°C)
Storage Temperature	-40°F to 185°F (-40°C to 85°C)
Relative Humidity	5% to 95% RH with no condensation
Dimensions (Height x Width x Depth)	Standard: 5.20 in x 2.07 in x 4.52 in (13.2 cm x 5.25 cm x 11.48 cm) Extended: 5.20 in x 2.73 in x 4.52 in (13.2 cm x 6.934 cm x 11.48 cm)
LED Indicators (On all gateways)	Power and Hardware Fault Configuration and Application Communication Status Serial Configuration Port Activity and Error
Configuration Serial Port	DB-9M RS-232 only No hardware handshaking
Ethernet Port (Ethernet protocol gateways only)	10 Base-T half-duplex RJ45 Connector Link LED and Activity LED indicators Electrical Isolation 1500 Vrms at 50 Hz to 60 Hz for 60 seconds, applied as specified in section 5.3.2 of IEC 60950: 1991 Ethernet Broadcast Storm Resiliency = less than or equal to 5000 [ARP] frames-per-second and less than or equal to 5 minutes duration
Application Serial Port(s) (Serial protocol gateways only)	RS-232/422/485 RS-232 handshaking configurable RS-422/485 DB-9 to Screw Terminal Adapter Note: The number of serial application ports depends on the gateway type, and the combination of protocols.
Serial Port Isolation	2500 Vrms port signal isolation per UL 1577 3000 Vdc min. isolation port to ground and port to logic
Shipped WITH Each Unit	Mini-DIN to DB-9M serial cables 4-foot RS-232 configuration cable 2.5 mm screwdriver CD (docs and configuration utility) RS-422/485 DB-9 to Screw Terminal Adapter for each serial application port (serial protocols only)

Agency Approvals and Certifications

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