



Wireless Modbus TCP/IP Gateway

6201-WA-MNET

The WA-MNET modules are the ideal solution for the many applications where wireless Modbus TCP/IP connectivity can be used to integrate 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 devices (Modicon processors and many others). Data is exchanged between devices and/or networks using a shared common database and an efficient but powerful wireless protocol. This common database provides the "backbone" communications for various field devices using different networks. Applications for the module are found in most industries, especially Manufacturing, Oil and Gas, Electrical Power and Food Processing.

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All ProSoft Technology® products are backed with unlimited technical support. Contact our worldwide Technical Support team directly by phone or email:

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Wireless Modbus TCP/IP Gateway

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The ProLinx wireless Modbus TCP/IP Gateway creates a powerful wireless connection between devices on a Modbus TCP/IP network.

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.

ProSoft Wireless Protocol (PWP) offers versatility where a mix of control devices requires cooperation with each other. This involves sharing of information across the applications regardless of device or network type, often at high speed, and with high reliability. Wireless bandwidth utilization is optimized by using efficient communication methods. The protocol supports Unicast, Broadcast and Multicast group messaging. Efficiency is based on the fact each device on the "wireless" network can produce these types of messages and each device determines which of these messages to consume.

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

ProSoft Wireless Protocol

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General Specifications - Radio Modules

These modules utilize a full function wireless network card, supporting RF data rates up to 11 Mbps. The modules function as a client, providing an ultra-fast wireless solution for the most demanding industrial applications.

These modules allow you to connect various field devices using different networks or protocols and share data between these devices "over-the-air." This is accomplished by exchanging shared common database information over-the-air with ProSoft Technology's efficient but powerful wireless protocol.

Specification	Description
Frequency	2.4 GHz band (2400 to 2483.5 MHz)*
Wireless medium	DSSS: Direct Sequence Spread Spectrum (802.11b)
Output power	32 mW (15 dBm)
Channel data rates	11, 5.5, 2, 1 Mbps
Channels: user selectable	1 through 11* **
Security	PWP + WEP 64/128 Encryption with WEP key rollover management
Antenna Ports	Two RP-SMA connectors, automatic antenna diversity
Bit Error Rate (BER)	Better than 10 ⁻⁵

* Varies with country regulation

** Some European countries such as France allow fewer channels

Hardware Specifications

Specification	Description
Power Supply	24 VDC nominal, 18 to 32 VDC allowed. Positive, Negative, GND Terminals.
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 inches (13.2cmH x 5.25cmW x 11.48cmD) Extended: 5.20H x 2.73W x 4.52D inches (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, RF Link Status, RF Data Status
Configuration Serial Port	Mini-DIN, RS-232 only No hardware handshaking

Specification	Description
Ethernet Port	RJ45 10Base-T Connector. Link and Activity LED indicators Electrical Isolation 1500 V rms at 50 Hz to 60 Hz for 60 s, 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 Ports	Mini-DIN, RS-232/422/485 RS232 handshaking configurable RS422/485 screw termination included
Antenna ports	Two RP-SMA connectors, with automatic antenna diversity.
Shipped with each unit	Mini-DIN to DB-9M cables per serial port, 4 ft RS-232 configuration cable, 2.5mm screwdriver, CD (docs and Configuration utility), RS-422/485 DB9 to Screw Terminal Adaptor (1 to 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:

6201-WA-MNET Wireless 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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