

Ether Modbus EMB-02R Two port Modbus/TCP to Modbus RTU and Modbus ASCII Gateway

Features



- * RoHS Compliant
- * Enable serial Modbus devices to communicate with a Modbus/TCP host computer
- * Configuration via Browser, telnet or serial port
- * SNMP agent functionality
- * Protocol aware: minimum configuration needed
- * Two serial ports that each support RS-232, RS-422, RS-485 2 or 4 wire
- * RS-422/485 version with optical isolation available
- * 10 or 100 Mbps ethernet
- * RS-232 interface speeds to 230 Kbps
- * RS-485 Bus mastering for two independent poll strings
- * DIN Rail or wall mounting

Description

The EtherModbus gateway allows serial Modbus RTUs to communicate and interoperate with Modbus/TCP based controllers.

The Modbus standard protocol is an asynchronous protocol designed to connect directly to computer asynchronous ports.

Modbus has been extended to operate over ethernet using the IP protocol suite. This gateway converts between the Modbus TCP/IP protocol and Modbus ASCII/RTU protocols transparently. The EMB-02 enables one or more MODBUS controllers to communicate with MODBUS ASCII/RTU based serial RTUs. It will not allow Modbus/TCP RTUs to operate with a serial MODBUS controller.

The EtherModbus gateway contains two independent serial ports. Each may be configured as RS-232, RS-422, or RS-485 (2 or 4 wire). When configured for RS-485 4-wire, multiple RTU polling strings may be polled on each interface.

A companion product, the EtherPoll is appropriate for applications using other protocols. The EtherPoll is protocol independent, and requires no knowledge of the RTU protocol. This allows it to work with any asynchronous byte-oriented protocol with no additional configuration. The EtherPoll uses UDP/IP.

The EtherGate is another companion product that is protocol-aware. It enables serial SCADA devices to communicate via an ethernet network. The EtherGate is ideal for transporting SCADA protocols via ethernet. To transport SCADA protocols over Frame Relay circuits (without ethernet), use the DCB [BPF Scada-FRAD](#).

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Specifications

General

- * Configuration Methods
 - o Any web browser
 - o Telnet menu interface
 - o Direct connection menu interface
- * SNMP agent functionality included
- * Serial speeds from 300 bps to 230,000 bps
- * RJ45 10/100BaseT ethernet, autoselected
- * Two serial ports, DE-9 (commonly called a PC DB-9) DTE interface, individually configurable
- * RS-485 two or four wire interface
- * RS-422/485 version with optical isolation available
- * Set up via telnet command line interface, the serial port, or any web browser
- * No Dip-switches... only one reset/setup button!

Indicators

Six LEDs indicate LAN and port status

Controls

Press button for configuration

Data Port

Interface:

- * Two serial ports, DE-9 (commonly known as a DB-9 PC connector) DTE interface, individually configurable
- * RS-485 two or four wire interfaces (with bus-mastering on the 4-wire)
- * Serial speeds from 300 bps to 230,000 bps

LAN Connection

Interface: 10/100BaseT autoselected

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Physical/Electrical

- * DIN rail or wall mount
- * 1 lb
- * 5mm x 78mm x 28 mm (W x H x D) 2.5 in x 3.25 in x 1.25 in (approximate)
- * 5-30 volt DC (external power supplies available for 110 VAC, 220 VAC, 48VDC, 125VDC and others)
- * 350ma @ 5 VDC, 200ma @ 12 VDC
- * Temperature Rated from -40 to +70 C, < 95% non-condensing humidity.



Front view
RS-232/422/485 Connector

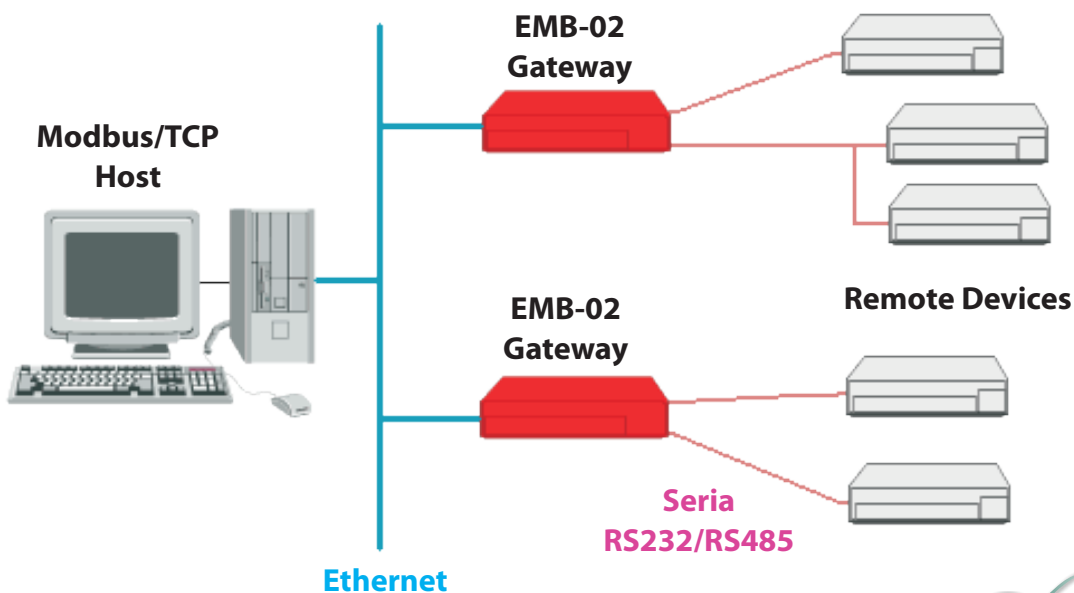



Rear view
LAN and Power Connectors



Front view of Isolated
Version

Applications





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- * Integrating a new Modbus/TCP host into an existing Modbus RTU or Modbus ASCII network.
- * Extending the life of existing serial RTUs when installing a new Modbus/TCP host computer.
- * Interface between Modbus/TCP host network and wireless network connecting serial Modbus RTUs

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