

Ether DNP-R Ethernet DNP-3 Gateway

Features



- * Configuration via Browser, telnet or serial port
- * Enable serial DNP-3 devices to communicate with a DNP/TCP or DNP/UDP host
- * 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
- * RoHS Compliant
- * Industrial temperature rated -40 to +70 C

Description

The gateway allows serial DNP-3 RTUs to communicate and interoperate with DNP/IP (either TCP or UDP) based controllers. The DNP-3 standard protocol is an asynchronous protocol designed to connect directly to computer asynchronous ports. DNP-3 has been extended to operate over ethernet using the IP protocol suite. This gateway converts between the DNP-3 IP protocol and DNP-3 Serial protocols transparently.

Normal operation would consist of one or more ethernet based computers functioning as DNP-3 host and one or more DNP-3 slave devices (usually RTUs) connected serially to the gateway.

The EDNP-3 enables one or more DNP-3 ethernet based controllers to communicate with DNP-3 based serial RTUs. It will not allow DNP-3 IP RTUs to operate with a serial DNP-3 controller.

By using RS-485, multiple DNP-3 slave devices may be connected to each of the two serial ports on the EDNP-3. If using RS-232, one DNP-3 slave device may be connected to each serial port.

The EDNP-3 is designed for mounting on a standard DIN rail, or for direct mounting on a wall. For easy connection to your LAN, the gateway supports 10BaseT or 100BaseT, half or full duplex with auto-sensing or pre-configuration.

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 (both Modbus and DNP-3). 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
- * Two serial ports, DE-9 (commonly called a PC DB-9) DTE interface, individually configurable
- * RS-485 two or four wire interfaces (with bus-mastering on the 4-wire)
- * RS-422/485 version with optical isolation available
- * Serial speeds from 300 bps to 230,000 bps
- * RJ45 10/100BaseT ethernet, autoselected
- * Set up via telnet command line interface, the serial port, or any web browser
- * No Dip-switches... only one reset/setup button!

Indicators

Four LEDs indicate LAN and port status

Controls

Data Port

Interface:

- * Two serial ports, DE-9 (commonly known as a DB-9 PC connector) DTE interface, individually configurable
- * RS-232, RS-422, or RS-485 two or four wire interfaces (with bus-mastering on the 4-wire)
- * RS-422/485 version available with optical isolation
- * 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

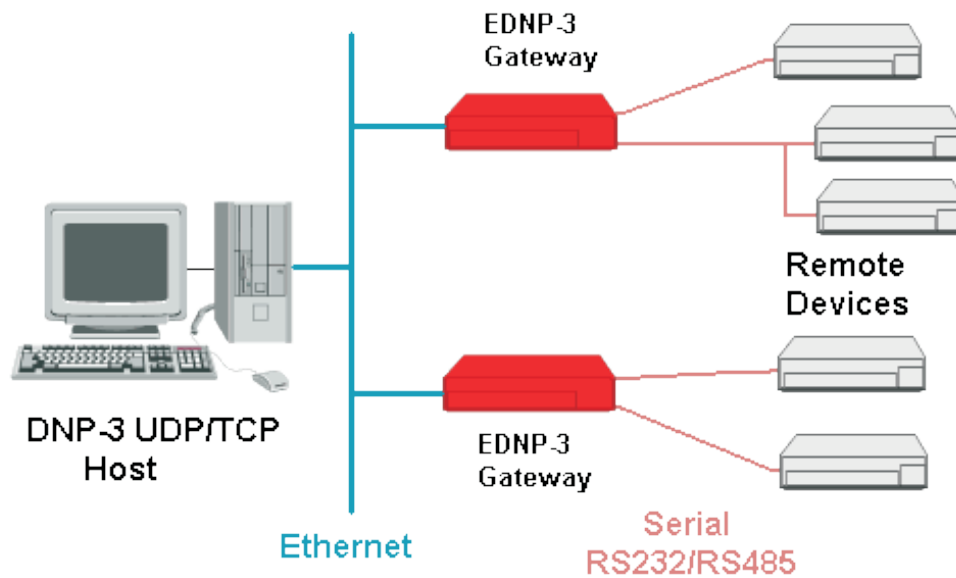


Rear view
LAN Connectors



Front view of Isolated
Version

Applications





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- * Integrating a new DNP-UDP/TCP host into an existing DNP-3 serial network.
- * Extending the life of existing serial RTUs when installing a new DNP-UDP/TCP host computer.
- * Interface between DNP-UDP/TCP host network and wireless network connecting serial DNP-3 RTUs

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