





Modbus Plus to DNP 3.0 over Ethernet Gateway 5303-MBP-DNPSNET

The MBP-DNPSNET modules are the ideal solution for the many applications where DNP over Ethernet connectivity can be used to integrate a Modbus Plus device into a system. The DNP over Ethernet gateway is a powerful module designed with both Client and Server support, enabling easy connection to other DNP devices. In combination with the Modbus Plus support, the module provides a very powerful interface to the many Modbus Plus 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 Plus to DNP 3.0 over Ethernet Gateway

5303-MBP-DNPSNET

The ProLinx Modbus Plus to DNP over Ethernet Gateway creates a powerful connection between devices on a DNP over Ethernet network and a Modbus Plus device. This stand-alone DIN-rail mounted protocol gateway provides one Modbus Plus configurable DB9F port and one Ethernet port.

The Modbus Plus protocol driver supports both Master and Slave implementations of the protocol on the DB9 Female Modbus Plus port. The Modbus Plus port is fully configurable.

The ProLinx module supports the DNP 3.0 protocol as a server using the TCP and UDP protocols using service port 20000. This port is fully configurable.

Modbus Plus

The Modbus Plus protocol driver exists in a single Modbus Plus Port (MBP). The driver can be configured on an individual port basis as either a master or a slave to interface with other Modbus Plus devices.

Modbus Function Codes	3: Read Multiple Data Registers (MSTR 2)
	16: Write Multiple Data Register (MSTR 1)
	Global data read (32 words max.)
	Global data write (32 words max.)
Address Scope	1 to 64

Modbus Plus Functioning as a Master		
Command List	Up to 200 commands on the master port, fully configurable for function, slave address, register to/from addressing and word count	
Polling of command list	Configurable polling of command list, including continuous and on change of data	

Modbus Plus Functioning as a Slave		
Node address	1 to 64 – software selectable	



DNP 3.0 TCP/IP Server

The DNPSNET protocol driver exists as a single service port (DNPSNET port 20000) implementation that supports a single TCP port connection and multiple UDP ports on a TCP/IP Ethernet network. The DNPSNET port operates as a server, supporting the DNP 3.0 protocol in a Level 2 implementation using the DNP User Group recommended extension for use on LAN/WAN.

General Parameters	
Internal Database	Binary Inputs: 8000 points (500 words) Analog Inputs: 500 points
	Counters: 250 (500 words) Binary Outputs: 2000 points (125 words)
	Analog Outputs: 500 points
DNP Mode	DNP 3.0 Slave – Level 2

DNP Server	
Service Port	20000
Protocols	TCP (1 connection) and UDP
Node address	0 to 65534 (software selectable)

The DNPSNET module accepts DNP commands to control and monitor the data stored in the DNP databases. These data are passed between the module and the other protocol on the ProLinx module.

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

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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	
Configuration Serial	DB-9M RS-232 only	
Port	No hardware handshaking	

Consideration	Description
Specification	Description
Ethernet Port (Ethernet	RJ45 Connector
modules only)	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:

5303-MBP-DNPSNET Modbus Plus to DNP 3.0 over Ethernet 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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