



## Modbus Plus to DNP 3.0 Slave Gateway

### 5301-MBP-DNPS

The ProLinX Modbus Plus to DNP 3.0 Slave Gateway creates a powerful connection between devices on a Modbus Plus network and DNP master devices. This stand-alone DIN-rail mounted protocol gateway provides one configurable DB9F port and one serial 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 DNP 3.0 Slave protocol driver supports Slave implementations of the protocol on one port. This port is fully configurable.

### Modbus Plus

The Modbus Plus protocol driver operates as a single peer-to-peer Modbus Plus Port with dual media-redundant connectors which are configurable as separate ports.

### Modbus Plus to DNP 3.0 Slave Gateway 5301-MBP-DNPS

*The MBP-DNPS modules are the ideal solution for the many applications where Modbus Plus connectivity can be used to integrate DNP serial devices into a system. The Modbus Plus gateway is a powerful module designed with both Master and Slave support, enabling easy connection to other Modbus Plus devices with peer to peer support. In combination with the DNP 3.0 Slave device support, the module provides a very powerful interface to the many DNP 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.*

### How to Contact Us: Sales and Support

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

#### Asia Pacific

+603.7724.2080, [asiapc@prosoft-technology.com](mailto:asiapc@prosoft-technology.com)  
Languages spoken include: Chinese, Japanese, English

#### Europe – Middle East – Africa

+33 (0) 5.34.36.87.20, [support.EMEA@prosoft-technology.com](mailto:support.EMEA@prosoft-technology.com)  
Languages spoken include: French, English

#### North America

+1.661.716.5100, [support@prosoft-technology.com](mailto:support@prosoft-technology.com)  
Languages spoken include: English, Spanish

#### Latin America (Sales only)

+1.281.298.9109, [latinam@prosoft-technology.com](mailto:latinam@prosoft-technology.com)  
Languages spoken include: Spanish, English

#### Brasil

+55-11.5084.5178, [eduardo@prosoft-technology.com](mailto:eduardo@prosoft-technology.com)  
Languages spoken include: Portuguese, English

#### General Parameters

|                       |  |
|-----------------------|--|
| Modbus Function Codes | 3: Read Multiple Data Registers (MSTR 2)<br>16: Write Multiple Data Register (MSTR 1)<br>Global data read (32 words max.)<br>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 Slave

The DNP 3.0 Slave driver provides extensive support for Slave implementations of the protocol. The serial port on the gateway is user-configurable to support the DNP 3.0 protocol (Slave, Error Checking, Baud rate, etc).

### General Parameters

|                          |   |
|--------------------------|---|
| Internal Database        | Binary Inputs: 0 to 500 word count<br>Analog Inputs: 0 to 500 points<br>Counters: 0 to 250 points<br>Binary Outputs: 0 to 200 word count<br>Analog Outputs: 0 to 500 points<br>Binary Input Events: 0 to 100 event buffer<br>Analog Input Events: 0 to 100 event buffer |
| Communication parameters | Baud Rate: 110 to 115K baud<br>Stop Bits: 1<br>Data Size: 8 bits<br>Parity: None<br>RTS Timing delays: 0 to 65535 ms  |
| DNP Mode                 | DNP 3.0 Slave – Level 2   |

### DNP Slave

|              |                                  |
|--------------|----------------------------------|
| Node address | 0 to 65534 (software selectable) |
|--------------|----------------------------------|

## 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

| Specification             | Description   |
|---------------------------|---|
| Power Supply              | 24 VDC nominal<br>18 to 36 VDC allowed<br>Positive, Negative, GND Terminals<br>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)<br>Extended: 5.20H x 2.73W x 4.52D in. (13.2cmH x 6.934cmW x 11.48cmD) |
| LED Indicators            | Power and Module Status<br>Application Status<br>Serial Port Activity LED<br>Serial Activity and Error LED Status                         |
| Configuration Serial Port | DB-9M RS-232 only<br>No hardware handshaking  |

| Specification                         | Description  |
|---------------------------------------|--|
| Ethernet Port (Ethernet modules only) | RJ45 Connector<br>Link and Activity LED indicators   |
| Application Serial Ports              | RS-232/422/485<br>RS-232 handshaking configurable<br>RS-422/485 screw termination included   |
| Serial Port Isolation                 | 2500V RMS port signal isolation per UL 1577<br>3000V DC min. port to ground and port to logic power isolation  |
| Shipped with Each Unit                | Mini-DIN to DB-9M serial cables<br>4 ft RS-232 configuration cable<br>2.5mm screwdriver<br>CD (docs and Configuration utility)<br>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:

**5301-MBP-DNPS** Modbus Plus to DNP 3.0 Slave 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>

### Distributors:

Place your order by email or fax to:

#### North American / Latin American / Asia Pacific

orders@prosoft-technology.com,  
fax to +1 661.716.5101

#### Europe

europe@prosoft-technology.com,  
fax to +33 (0) 5.61.78.40.52

Copyright © ProSoft Technology, Inc. 2000 - 2007. All Rights Reserved.  
May 03, 2007