



EtherNet/IP to PROFIBUS DPV1 Master Gateway

5204-DFNT-PDPMV1

The DFNT-PDPM modules are the ideal solution for the many applications where EtherNet/IP connectivity can be used to integrate a PROFIBUS DP slave device into a system. The EtherNet/IP gateway is a powerful module designed with both Client and Server support, enabling easy connection to Rockwell Automation PLCs (CLX, SLC, PLC, CPLX, and similar devices). Applications for the module are found in most industries, especially Manufacturing, Oil and Gas, Electrical Power and Food Processing.

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EtherNet/IP to PROFIBUS DPV1 Master Gateway

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The ProLinx EtherNet/IP to PROFIBUS DPV1 Master Gateway creates a powerful connection between devices on an EtherNet/IP network and a PROFIBUS slave device. This stand-alone DIN-rail mounted protocol gateway provides one Ethernet port and PROFIBUS DP Master configurable DB9F port.

The EtherNet/IP protocol driver supports the Explicit Messaging implementation of the protocol. User-configurable as both a Client and a Server, the EtherNet/IP port is a very powerful data transfer tool.

The PROFIBUS DP Master protocol driver supports complete Master specifications according to IEC 61158 on either a Mono-Master or Multi-Master network. The module supports the DPV1 specification.

EtherNet/IP

The EtherNet/IP protocol is one of the primary connectivity tools to the different Rockwell Automation platforms. The Explicit Messaging aspect of the protocol (only) has been implemented in the ProLinx units to provide the data transfer link between the ProLinx units and the Rockwell Automation hardware.

General Protocol Information

Messaging	PCCC on CIP Explicit Messaging supported
Miscellaneous	125 word read and write data lengths Floating point data supported

EtherNet/IP Server Specifications

In Server mode, the module accepts commands from one or more clients to read/write data stored in the module's internal registers.

EtherNet/IP Server Specifications

Connections	Five independent TCP server sockets permit remote clients to interact with all data contained in the module.
Data File	Data Table File Start - Fixed at N10 Data Table File Size - 100 or 1000 words
CIP Services Supported	0x4C - CIP Data Table Read 0x4D - CIP Data Table Write

EtherNet/IP Client Specifications

In Client mode, the module controls the read/write data transfer between the gateway and other EtherNet/IP devices. Data transfer can be initiated and executed without any ladder programming being required in the Rockwell Automation hardware.

EtherNet/IP Client Specifications

General	One client
Command List	Support for 100 commands, each configurable for command, IP address, register to/from addressing and word/bit count.
Polling of command list	User configurable polling of commands, including disabled, continuous and on change of data (write only).

PROFIBUS DP Master V1

The module supports complete Master specifications according to IEC 61158. Acyclic parameter data can be transferred with Class 1 or Class 2 DPV1 services, allowing processors to easily communicate with slave devices supporting PROFIBUS DPV0/V1 protocol.

The ProLinx PDPMV1 PROFIBUS Master module acts as a PROFIBUS network scanner, transferring Input and Output data between PROFIBUS devices and the network.

- Master Busview configuration interface via included ProSoft Configuration Builder software (see PSW-PCB)
- Project-unique GSD file import library
- Monitoring and Modification of process data and DPV1 acyclic data
- Multi-drop on a PROFIBUS DPV1 network drop with other compatible devices
- Ability to be used with a repeater as a PROFIBUS Master with PROFIBUS PA slaves on the network
- Automatic project documentation
- Automatic Bus Parameter calculation
- Online slave diagnostics
- Supports all standardized baud rates, up to 12Mbps
- Supports extended diagnostic data (DPV1)
- Auto baud detection at all valid PROFIBUS DPV1 rates
- Multiple modules can be placed in a single rack
- CRC checksum determination of slave configuration consistency to processor
- Master Status LED Indicators for Operations, Network Drop Communication, Master Token-Hold
- FDT/DTM PROFIBUS master transport communication DTM software included (see PSW-CDTM-PDPM)

PROFIBUS Master Specifications

- Up to 125 Slaves can be connected with a repeater
- Up to 1536 cyclic bytes (768 words) input and 1536 bytes (768 words) output data
- Supports Extended Diagnostic Data
- RS-485 optically isolated PROFIBUS Interface with on board DC-DC converter
- Acyclic communications (DPV1), Read and Write
- Alarm Handling (DPV1)
- Supports Sync and Freeze commands
- Supports PROFIdrive 3.1 compliant parameter read and write operations
- Supports Multicast and Broadcast telegrams (DPV1)

PROFIBUS Master Port

- DB-9F Optically Isolated RS-485
- Ready, Run, Error and Token LED Indicators
- PROFIBUS DPV1 RS-485 interface with a 9-pin D shell female connector and isolated Opto-Couplers

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 18 to 32 VDC allowed Positive, Negative, GND Terminals 2.5 mm screwdriver blade
Current Load	500 mA max@ 32 VDC max

Specification	Description
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 Port	DB-9M RS-232 only No hardware handshaking
Ethernet Port (Ethernet modules only)	RJ45 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	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:

5204-DFNT-PDPMV1 EtherNet/IP to PROFIBUS DPV1
Master 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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February 29, 2008