EtherNet/IP to BACnet/IP Client Gateway
5201-DFNT-BACNET

The DFNT-BACNET modules are the ideal solution for the many applications where EtherNet/IP connectivity can be used to integrate with Ethernet-enabled BACnet devices. The BACnet driver supports a single UDP client to interface with one or more devices that contain a BACnet server. 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). In combination with the BACNET device support, the module provides a very powerful interface to the many BACNET devices which are in use in the building automation and control marketplace today.

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EtherNet/IP to BACNET/IP Client Gateway

5201-DFNT-BACNET
The ProLinx EtherNet/IP to BACnet/IP Client Gateway creates a powerful connection between devices on an EtherNet/IP network and BACNET devices. This stand-alone DIN-rail mounted protocol gateway provides a single Ethernet 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 BACnet protocol provides mechanisms by which computerized equipment of arbitrary function may exchange information, regardless of the particular building service it performs. As a result, the BACnet protocol may be used by head-end computers, general-purpose direct digital controllers, and application specific or unitary controllers with equal effect.

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.

EtherNet/IP Client Specifications

Polling of command list	User configurable polling of commands, including disabled, continuous and on change of data (write only).

BACNET

The BACnet/IP (Building Automation and Control networking) protocol is designed specifically to meet the communication needs of building automation and control systems for applications such as heating, ventilating, and air-conditioning control, lighting control, access control, and fire detection systems. The ProLinx BACNET driver implements a subset of the BACnet/IP protocol.

BACnet/IP Client Specifications

The module controls the read/write data transfer between the gateway and other BACnet/IP devices.

BACnet/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.
Service Port	1 to 65535
Function Code	12, 14, 15 and 16 (Read/Write Single & Multiple)
Data Type	0, 1, 3 and 4 (BO, BI, AO & AI)
Point Count	1 to 25

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 36 VDC allowed
	Positive, Negative, GND Terminals
	2.5 mm screwdriver blade
Current Load	500 mA max@ 24 VDC
Operating Temperature	0 to 50°C (32 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

Specification	Description
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:

5201-DFNT-BACNET	EtherNet/IP to BACnet/IP Client
5201-DFNT-BACNET-WEB	Gateway

Note:

The 5201-DFNT-BACNET-WEB is in a Final Sales Period of two years, effective October 14, 2008 until October 14, 2010. Thereafter, the product will continue to be supported until October 14, 2014. The recommended replacement for this product is 5201-DFNT-BACNET.

For more information on the Product Retirement Program, please visit: http://www.prosoft-technology.com/products/product_retirement_program

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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May 03, 2007