



Collaborative Automation
Partner Program



CE Ex UL US Class 1, Division 2,
Groups A, B, C, and D Hazardous
Locations.

EtherNet/IP Client/Server Communication Module

PTQ-DFNT

With the growing trend of EtherNet/IP technology in the industrial marketplace, this product has a wide variety of application uses. Industries that use this technology

- Food Processing
- Petrochemical
- Pulp and Paper
- Automobile Manufacturing

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EtherNet/IP Client/Server Communication Module

PTQ-DFNT

The EtherNet/IP Client/Server Communication Module is a Quantum backplane compatible module that allows Modicon Quantum processors to interface easily with EtherNet/IP protocol (Explicit Messaging) compatible devices and hosts. Devices commonly supporting the protocol include Rockwell Automation PLCs, and host HMI systems.

Features and Benefits

The PTQ-DFNT module is a single slot solution that provides a powerful connection between Schneider Electric's Quantum and Unity processors and EtherNet/IP network applications.

The module can send read or write commands to remote devices on the EtherNet/IP network. The PTQ-DFNT also has 20 servers that allows the module to receive commands from remote devices. Up to 100 commands can be configured by the user.

The PTQ-DFNT module is a powerful communication interface for Quantum platform processors. Developed under license from Schneider Electric, the module incorporates proprietary backplane technology that enables powerful data access to the Quantum processor.

General Specifications

- Single Slot - Quantum backplane compatible
- The module is recognized as an Options module and has access to PLC memory for data transfer
- Configuration data is stored in non-volatile memory in the ProTalk module
- Up to six modules can be placed in a rack
- Local rack - The module must be placed in the same rack as processor.
- Compatible with common Quantum / Unity programming tools.
- Quantum data types supported: 0x, 1x, 3x, 4x
- High speed data transfer across backplane provides quick data update times.
- Sample function blocks available.

Hardware Specifications

Specification	Value
Backplane Current Load	800 mA @ 5 V
Operating Temperature	0 to 60°C (32 to 140°F)
Storage Temperature	-40 to 85°C (-40 to 185°F)

Specification	Value
Relative Humidity	5% to 95% (non-condensing)
Vibration	Sine vibration 4-100 Hz in each of the 3 orthogonal axes
Shock	30G, 11 mSec. in each of the 3 orthogonal axes
Dimensions (HxWxD), Approx.	250 x 103.85 x 40.34 mm 9.84 x 4.09 x 1.59 in
LED Indicators	Module Status, Backplane Transfer Status, Serial Port Activity LED, Serial Activity and Error LED Status
Debug/Configuration Port (Debug)	
CFG Port (DEBUG)	DB-9M PC Compatible, RS-232 only No hardware handshaking
Application Ports	
Application Ethernet port	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

Functional Specifications

Type	Specifications
Internal Database	4000 registers (words) available for transfer to and from Quantum processor
Modes	Client and Server supported
Messaging	PCCC on CIP - See command list that follows CIP Services (Server Only) - See command list below
Service Port	AF12Hex (44818)
Compatibility	Compatible devices include a wide assortment of other client/server devices such as: <ul style="list-style-type: none"> ▪ PLC: PLC5/E Rev. C/N, D/E, E/D or later, 1785-ENET Series A, Rev. D ▪ SLC: SLC5/05 Series A, OS501 fm5 or later ▪ CLX: 1756-ENET, 1756-ENBT ▪ CPLX: 1769-L5335E Rev. 12.26 Interchange (limited - Contact Tech Support) ▪ RSLinx: Gateway V1.7 or later
Miscellaneous	125 word read and write data lengths Floating point data supported

EtherNet/IP Server Specifications

When in the Server mode, the module accepts commands from a Client(s) to read/write data stored in the module's internal registers. This data is easily transferred to the Quantum processor's data registers. The EtherNet/IP functionality supported by the module includes:

EtherNet/IP Server

Connections	Twenty independent TCP server sockets permit remote clients to interact with all data contained in the module. Data can be derived from other clients on the network, through the client on the module, or from the Quantum processor
Data File	Data Table File Start - Fixed at N10 Data Table File Size - 100 or 1000 words Data Table location in PTQ - Start Register 0

EtherNet/IP Client Specifications

When configured in the client mode the DFNT module is capable of reading and writing data to remote EtherNet/IP devices, enabling the Quantum platform to act as a SCADA sub-master.

The EtherNet/IP Client functionality supported by the module includes:

EtherNet/IP Client Specifications

Messaging	PCCC on CIP Explicit Messaging supported
General	One client configurable for timing and commands
Command List	Up to 100 command, each fully configurable for function, slave 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)

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:

PTQ-DFNT	EtherNet/IP Client/Server Communication Module
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