Modbus TCP/IP to DF1 Master/Slave Gateway
5201-MNET-DFCM and 5202-MNET-DFCM4

The MNET-DFCM modules are the ideal solution for the many applications where Modbus TCP/IP connectivity can be used to integrate DF1 devices into a system. The Modbus TCP/IP gateway is a powerful module designed with both Client and Server support, enabling easy connection to other Modbus TCP/IP devices (Modicon processors and many others). In combination with the DF1 Master/Slave device support, the module provides a very powerful interface to the many DF1 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
Languages spoken include: Chinese, Japanese, English

Europe – Middle East – Africa
+33 (0) 5.34.36.87.20, support.EMEA@prosoft-technology.com
Languages spoken include: French, English

North America
+1.661.716.5100, support@prosoft-technology.com
Languages spoken include: English, Spanish

Latin America (Sales only)
+1.281.298.9109, latinam@prosoft-technology.com
Languages spoken include: Spanish, English

Brasil
+55-11.5084.5178, eduardo@prosoft-technology.com
Languages spoken include: Portuguese, English

Modbus TCP/IP to DF1 Master/Slave Gateway
5201-MNET-DFCM and 5202-MNET-DFCM4

The ProLinx Modbus TCP/IP to DF1 Master/Slave Gateway creates a powerful connection between devices on a Modbus TCP/IP network and DF1 devices. This stand-alone DIN-rail mounted protocol gateway provides one Ethernet port and up to four serial ports.

The Modbus TCP/IP protocol driver supports Client and Server connections, connecting many different devices into Schneider Electric Quantum processors, as well other solutions supporting the protocol.

The DF1 protocol driver supports Master or Slave implementations of the protocol on each DF1 port. All DF1 ports are individually configurable.

Modbus TCP/IP
The Modbus TCP/IP driver interfaces with a common internal database in the module. This permits the sharing of data between the Modbus TCP/IP and other networks and devices.

Modbus TCP/IP Server	
General	Server supports up to 5 independent connections each to Modbus TCP/IP clients on Service Port 502 using the MBAP protocol, and Service Port 2000.
Configurable Parameters	Module IP Address
Modbus address offsetting

Modbus TCP/IP Client	
General	Actively reads and writes data with Modbus TCP/IP compatible devices.
One client connection (up to 100 servers/devices with 100 commands)
Configurable parameters	Number of active commands, Command parameters, Min Command Delay, Response Timeout, Retry Count, and more
Command List	Up to 100 fully configurable commands on the Client port

DF1 Master/Slave
The DF1 Master/Slave Protocol driver provides extensive support for both Master and Slave implementations of the protocol. The serial port on the gateway is user-configurable to support the DF1 protocol (Master or Slave, Error Checking, Baud rate, etc).

General Parameters	
Communication parameters	Local Station ID: 0 to 254
Ports 1 to 3 Baud Rate: 110 to 115K baud
Stop Bits: 1
Data Size: 8 bits
Parity: None, Even, Odd
RTS Timing delays: 0 to 65535 ms
Error Checking	BCC and CRC
Miscellaneous	Full hardware handshaking control, providing radio, smart modem and Multi-drop support; Floating point data supported

DF1 Master Protocol Specifications

The ports on the module can be individually configured as Master ports. When configured in master mode, the DFCM module is capable of reading and writing data to remote DF1 devices.

DF1 Master Driver

DF1 Modes	Full-Duplex or Half-Duplex
Command List	Up to 100 commands per Master port, 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)

DF1 Slave Protocol Specifications

The ports on the module can be individually configured to support the Slave mode of the DF1 protocol. When in slave mode, the module can accept DF1 commands from a master to read/write data stored in the module's internal registers.

DF1 Slave Driver

DF1 Modes	Full Duplex – Slave (not peer mode) Half Duplex – Polled
Configurable parameters per slave port	Data Table File Start (File N[x] 0 to 999) Data Table File Size (1 to 1000 words) Data Table location in database (0 to 3999)

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
Ethernet Port (Ethernet modules only)	RJ45 Connector Link and Activity LED indicators
Configuration Serial Port	DB-9M RS-232 only No hardware handshaking

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 these products, please use the following:

5201-MNET-DFCM   (One DF1 Master/Slave Serial Port)
5202-MNET-DFCM4   (Four DF1 Master/Slave Serial Ports)

The 5201-MNET-DFCM-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-MNET-DFCM. Only the WEB option version of this product is being discontinued.

For more information on the Product Retirement Program,please visit: http://www.prosofttechnology. 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