Modbus TCP/IP Communication Module

MVI69-MNET

With the growing trend of Ethernet technology in the industrial marketplace, this product has a wide variety of application uses.

- *Food processing*
- *Petrochemical*
- *Pulp and paper*
- *Automobile manufacturing*

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Modbus TCP/IP Communication Module

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The inRAx Modbus TCP/IP Communication Module is designed to allow CompactLogix processors to interface easily with other Modbus TCP/IP protocol-compatible devices.

Compatible devices include not only Modicon processors (which support the Modbus TCP/IP protocol) but also a wide assortment of other clients and server devices.

Features and Benefits

The MVI69-MNET module is a single slot solution that provides a powerful connection between Rockwell Automation's CompactLogix processor and Modbus TCP/IP network applications.

The TCP/IP Modbus network applications include those networks hosted by Modicon Quantum processors, networks controlled by operator interface software applications, and the growing number of manufactured devices that support this protocol. The module acts as an input/output module between the Modbus TCP/IP network and the CompactLogix backplane. The data transfer from the processor is asynchronous from the actions on the Modbus TCP/IP network. A 5000-word register space in the module exchanges data between the processor and the Modbus TCP/IP network.

- Support for the storage and transfer of up to 5000 registers to/from the PLC processor using the block transfer or side-connect interface
- User-definable module memory usage
- 10/100 Base-T Ethernet compatible interface
- Configurable parameters for the client including a minimum response delay of 0 to 65535 milliseconds and floating point support

General Specifications

- Single Slot - 1769 backplane compatible
- The module is recognized as an Input/Output module and has access to processor memory for data transfer between processor and module
- Ladder Logic is used for data transfer between module and processor. Sample ladder file included.
- Configuration data obtained from configuration text file downloaded to module. Sample configuration file included.
- Supports all CompactLogix processors: L20/L30/L31/L32/L35, L43 and L45 (L43 and L45 supported with RSLogix 5000 v16.03 or later)
- Also supports MicroLogix 1500 LRP

Hardware Specifications

Specification	Description
Dimensions	Standard 1769 Single-slot module
Current Load	800 mA max@ 5 VDC Power supply distance rating of 2
Operating Temp.	0 to 60°C (32 to 140°F)
Storage Temp.	-40 to 85°C (-40 to 185°F)
Relative Humidity	5 to 95% (non-condensing)
LED Indicators	Power and Module Status Application Status CFG Port Activity Ethernet Port Activity Error Status
CFG Port (CFG)	RJ45 (DB-9M with supplied cable) RS-232 only No hardware handshaking
App Port (Ethernet modules)	10/100 Base-T Ethernet compatible interface 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
Shipped with Unit	RJ45 to DB-9M cables for each port 6-foot RS-232 configuration Cable

Functional Specifications

General Protocol specifications

Floating point data movement supported, including configurable support for Enron/Daniel implementation.

Modbus Server Protocol Specifications

The server driver supports connections to Modbus TCP/IP clients supporting Service Port 502 using the standard MBAP protocol, and clients supporting Modbus on Service Port 2000.

General

- Supports five independent server connections for Service Port 502
- Supports five independent server connections for Service Port 2000
- All data mapping begins at Modbus register 40001

Status Data

Error codes, counters, and port status available

Modbus Function Codes

Code	Description
1:	Read Output Status
2:	Read Input Status
3:	Read Multiple Data Registers
4:	Read Input Registers
5:	Write Single Bit
6:	Write Single Data Register
15:	Write Multiple Bits
16:	Write Multiple Data Register

Modbus TCP/IP Client

The client driver supports the active reading and writing of data with Modbus TCP/IP compatible devices.

One client connection available (connect up to 100 servers/devices with 100 commands).

Additional Products

ProSoft Technology offers a full complement of hardware and software solutions for a wide variety of industrial communication platforms.

Compatible products in the inRAx product line also include:

Modbus Master/Slave Communication Module for CompactLogix / MicroLogix (MVI69-MCM)

Modbus TCP/IP Client Communication Module for CompactLogix / MicroLogix (MVI69-MNETC)

Visit our web site at http://www.prosoft-technology.com for a complete list of products.

Ordering Information

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