Modbus TCP/IP Communication Module

MVI56-MNET

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

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- *Petrochemical*
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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 Communication Module

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The MVI56 Modbus TCP/IP Communication Module is designed to allow ControlLogix 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 MVI56-MNET module is a single slot solution that provides a powerful connection between Rockwell Automation's ControlLogix 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 packages, and the growing number of manufactured devices that support this protocol. The MVI56-MNET module acts as an input/output module between the Modbus TCP/IP network and the Rockwell Automation 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 ControlLogix processor using the block transfer or side-connect interface
- User-definable module memory usage
- 10/100 MB Ethernet compatible interface
- Configurable parameters for the client including a minimum response delay of 0 to 65535 mSec and floating point support

General Specifications

- Single Slot – 1756 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
- Local or remote rack

Hardware Specifications

Specification	Description
Form Factor	Single Slot 1756 Chassis Compatible Local or Remote Rack
Backplane Current Load	800 mA @ 5 V
Operating Temperature	0 to 60°C (32 to 140°F)
Storage Temperature	–40 to85°C (–40 to 185°F)
Shock:	30g Operational 50g non-operational Vibration: 5 g from 10 to 150 Hz
Relative Humidity	5 to 95% (non-condensing)
LED Indicators:	Module Status Backplane Transfer Status Application Status Serial Activity
Application port (Ethernet)	
Ethernet Port (Ethernet modules)	10/100M RJ45 Connector Link and activity LED indicators
Shipped with Unit	RJ45 to DB-9M cables for each port 6-foot RS-232 configuration cable
Debug/Configuration port (CFG)	
CFG Port (CFG)	RJ45 (DB-9M with supplied cable) RS-232 only No hardware handshaking

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 TCP/IP Module with Reduced Data Block (MVI56-MNETR)

Modbus TCP/IP Client Module (MVI56-MNETC)

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:

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orders@prosoft-technology.com,
fax to +1 661.716.5101

Europe
europe@prosoft-technology.com,
fax to +33 (0) 5.61.78.40.52

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