## Modbus TCP/IP Communication Module

### MVI71-MNET

The MVI71 Modbus TCP/IP Communication Module is designed to allow PLC 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 MVI71-MNET module is a single slot solution that provides a powerful connection between Rockwell Automation's PLC 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 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 PLC 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 – 1771 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.

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*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*
- *Water and Wastewater*
- *Oil and Gas*
- *Power and Electric*

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**Asia Pacific**
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Languages spoken include: Chinese, Japanese, English

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

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

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

## Hardware Specifications

| Specification | Description |
| --- | --- |
| Form Factor | Single Slot 1771 chassis compatible BTR/BTW data transfer |
| | Local or remote rack |
| 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) |
| Shock | 30g operational |
| | 50g non-operational |
| Vibration | 5 g from 10150 Hz |
| Relative humidity | 5 to 95% (non-condensing) |
| LED Indicators | Module status |
| | Backplane transfer status |
| | Application status |
| | Serial activity and error LED status |
| Configuration Serial port (CFG) | DB-9M PC compatible |
| | RS-232 |
| | Hardware handshaking |
| Ethernet Port (Ethernet modules) | RJ45 Connector |
| | Link and activity LED indicators |

## General Protocol specifications

| Type | Specifications |
| --- | --- |
| Floating Point Data | Floating point data movement supported, including configurable support for Enron 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. |

## 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

## 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)

## Copy of 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 PLC (MVI71-MCM)

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:

**MVI71-MNET**    Modbus TCP/IP
Communication Module

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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fax to +1 661.716.5101

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

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