





## Modbus TCP/IP Communication Module for Remote Chassis MVI56-MNETR

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

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# Modbus TCP/IP Communication Module for Remote Chassis

## **MVI56-MNETR**

The MVI56 Modbus TCP/IP Communication Module with Reduced Data Block allows Rockwell Automation ControlLogix I/O compatible 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.

This module uses a small I/O data area for data transfer between the module and the ControlLogix processor, making it ideal for ControlNet or Ethernet applications with the module in a remote rack.

### **Features and Benefits**

The MVI56-MNETR 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-MNETR 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<br>Load | 800 mA @ 5 V                                   |
| Operating<br>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 (Ethe    | ernet)   |
| Ethernet Port             | 10/100M  |
| (Ethernet modules)        | 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                                    |
|                           | <b>N</b> 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 |

No hardware handshaking

## **Functional Specifications**

Some of the general specifications include:

- Support for the storage and transfer of up to 5000 registers to/from the ControlLogix processor's controller tags
- Module memory usage that is completely user definable
- 10/100 MB Ethernet compatible interface
- Configurable parameters for the client include
  - Minimum Command Delay
    - o Pass-Through Mode.
- The ControlLogix processor can be programmed to control the activity on the client by actively selecting commands from the command list to execute or issue commands directly from the ladder logic.

- The module supports 10 servers for Modbus TCP/IP (Port 502) and 10 servers for MNET (Port 2000)
- One hundred commands are supported on each port.
- A client configured as a virtual Modbus master device on the MVI56-MNETR module will actively issue Modbus TCP/IP commands to other nodes on the Modbus TCP/IP network.
- The servers permit remote clients to interact with all data contained in the module. This data can be derived from other Modbus clients on the network through the client on the module or from the ControlLogix processor.
- The module can be configured to pass write commands (functions 5, 6, 15 and 16) directly from the remote host to the processor.
- Accepts Modbus function code commands of 1, 2, 3, 4, 5, 6, 7, 15, 16, 22 and 23 from an attached Modbus TCP/IP client.

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MVI56-MNETR Modbus TCP/IP Communication Module for Remote Chassis

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