

# DATASHEET

# Modbus TCP/IP Lite Communication Module MVI69L-MBTCP

The MVI69L-MBTCP Modbus TCP/IP module is ideal for smaller applications that utilize the CompactLogix<sup>TM</sup> L2 controllers. The module has an Add-on Profile and an Add-on Instruction to reduce commissioning time.

The MVI69L-MBTCP has a single Ethernet port for diagnostic and application data. It supports both Client and Server connectivity to interface with a variety of devices using the Modbus TCP/IP Protocol.





#### Features

- Supports CompactLogix processors with 1769 I/O bus capability version 16 and greater (MicroLogix 1500 not supported)
- Add-on Instruction creates UDTs, providing logical definitions for I/O, status, and control data
- Add-on Profile support, improving integration in the CompactLogix System
- Diagnostic data available in processor controller tags, enabling decisions to be made based upon node health
- Configuration backed up in CompactLogix project (ACD file)
- Module acts as a co-processor reducing impact to PLC scan time
- Supports up to 240 words of I/O data
- Supports up to 10 Client connections and 2 Server connections (1 each for Server Ports 502 and 2000)
- Supports Enron and Daniel style Floating point data implementation

#### **General Specifications**

Configuration	ProSoft Configuration Builder	
I/O Size	240/240 - 16 bit integers	
Floating Point Data	Floating point data movement supported including configurable support for Enron, Daniel <sup>®</sup> , and other implementations	
Modbus Function Codes Supported	<ol> <li>Read Coil Status</li> <li>Read Input Status</li> <li>Read Holding Registers</li> <li>Read Input Registers</li> <li>Force (Write) Single Coil</li> <li>Preset (Write) Single Holding Register</li> <li>Diagnostics (Slave Only, Responds to Subfunction 00)</li> </ol>	<ul> <li>15: Force( Write) Multiple Coils</li> <li>16: Preset (Write) Multiple Holding Registers</li> <li>17: Report Slave ID (Slave Only)</li> <li>22: Mask Write Holding Register (Slave Only)</li> <li>23: Read/Write Holding Registers (Slave Only)</li> </ul>

## **Functional Specifications**

#### **Modbus Client**

Configured as a Modbus Client, the module actively issues Modbus commands to other nodes on the Modbus network.

Client Connections	10
Command List	Up to 16 command per Client connection, each fully configurable for function, slave address, register to/from addressing and word/bit count.
Command Control	Configured commands can be controlled directly from ladder logic
Polling of command list	Configurable polling of command list, including continuous and on change of data, and dynamically user or automatic enabled.
Status Data	Error codes available on an individual command basis. In addition, a slave status list is maintained per active Modbus Client

#### **Modbus Server**

Configured as a Modbus Server, the module acts as a node and permits a remote Client to interact with all data contained in the module.

Server Connections	2, (1 MBAP and 1 Encapsulated)
Status Data	Error codes, counters and port status available per configured server

## **Hardware Specifications**

Specification	Description
Dimensions	Standard 1769 Single-slot module
Current Load	450 mA max @ 5 VDC
	Power supply distance rating of 4
Operating Temp.	32° F to 140° F (0° C to 60° C)
Storage Temp.	-40° F to 185° F (-40° C to 85° C)
Relative Humidity	5% to 95% (with no condensation)
LED Indicators	Battery and Module Status
	Application Status
	Ethernet Port Activity
	CFG Port Activity
Eth-1	10/100 Ethernet Port
	Used for Debugging and Application Code

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MVI69L-MBTCP

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