



## IEC 60870-5-101 Master Communication Module

MVI46-101M

*The MVI46-101M module is the ideal solution for many applications where IEC protocol connectivity must be added to an SLC system. The IEC solution is designed to address the expanding interest in the IEC protocol and the use of IEC compatible devices in industrial applications such as those in the water/wastewater, power, and oil & gas industries.*

*Compatible devices include relays, breakers, sub-station Communication Modules and other serial communication devices.*

### How to Contact Us: Sales and Support

All ProSoft Technology® products are backed with unlimited technical support. Contact our worldwide Technical Support team directly by phone or email:

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## IEC 60870-5-101 Master Communication Module

### MVI46-101M

The MVI46 IEC 60870-5-101 Master Communication Module allows Rockwell Automation SLC I/O compatible processors to interface easily with IEC 60870-5-101 slave (controlled unit) devices.

### Features and Benefits

The MVI46-101M module interfaces up to 32 serial communication devices with the SLC processor. Two communication ports on the module act as controlling devices (masters) to interface with controlled devices on their own networks. Each port is individually configurable and can be set for balanced or unbalanced mode. Data is exchanged between the serial network and the Rockwell Automation processor using the internal database contained in the module and direct control by the processor's ladder logic.

### General Specifications

- Single Slot - 1746 backplane compatible (Local or extended I/O rack only. Remote rack not supported)
- The module is recognized as an Input/Output module and has access to processor memory for data transfer between processor and module using M0/M1 files
- 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

### Hardware Specifications

Specification	Description
Backplane Current Load	800 ma @ 5V (from backplane)
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
Relative Humidity	5% to 95% (non-condensing)
Vibration	5 g from 10150 Hz
Processor	Compatible with Rockwell Automation SLC 5/02 M0/M1 capable processors or newer

Specification	Description
LED indicators	Module status, Backplane transfer status, Application status, Serial activity and error LED status
<b>Debug/Configuration port (CFG)</b>	
CFG Port (CFG)	RJ45 (DB-9M with supplied cable) RS-232 only
Configuration Connector	RJ45 RS-232 Connector (RJ45 to DB-9 cable shipped with unit)
<b>Application Ports</b>	
Application Serial port (PRT1, PRT2) (Serial Modules)	Two RJ45 RS-232/422/485 Application ports

## Functional Specifications

- Built in accordance to the approved international specification
- Two independent master ports completely user configurable
- Support for balanced and unbalanced mode
- Up to 32 sessions
- Up to five sectors (separate databases) for each session
- Individual database definition for each sector
- 1000 commands to control stations
- SLC processor can issue control commands directly to the module or a controlled device (10 at each scan)
- Pass-through of event messages from controlled device to processor for logging of time-tagged events
- Operation via simple ladder logic
- Supports clock synchronization from/to the SLC
- Receives events from the slave and sends them to the SLC processor
- Supports monitored data
  - Single-point
  - Double-point
  - Step-point
  - Measured-point
  - Bitstring 32-bit
  - Integrated total point
- Class 1 and Class 2 delay parameter in the configuration file
- Complete set up and monitoring of module through RSLogix 500 software and user constructed configuration file (IEC101M.CFG)
- SLC backplane interface via M-File access
- All data related to the module is contained in user data files to simplify monitoring and interfacing with the module

## Additional Products

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

Compatible products in this product line also include:

### **DNP 3.0 Master/Slave Communication Module for SLC (MVI46-DNP)**

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:**

MVI46-101M      IEC 60870-5-101 Master  
Communication Module

To place an order, please contact your local ProSoft Technology distributor. For a list of ProSoft Technology distributors near you, go to <http://www.prosoft-technology.com>

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