IEC 60870-5-103 Master Communication Module

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MVI46-103M

The MVI46-103M 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
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IEC 60870-5-103 Master Communication Module

MVI46-103M
The MVI46 IEC 60870-5-103 Master Communication Module allows SLC backplane I/O compatible processors to interface easily with IEC 60870-5-103 compatible devices. Devices commonly supporting the protocol include relays, breakers, sub-station Communication Modules and other serial communication devices used in power monitoring.

Features and Benefits
The MVI46-103M supports up to 32 total field devices between the module's two IEC 60870-5-103 Master ports. The module's communication ports can each be independently configured, allowing two separate field networks to be implemented. The field device data is exchanged between the MVI module and the SLC processor over the backplane.

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
LED indicators	Module status, Backplane transfer status, Application status, Serial activity and error LED status

Specification	Description
Debug/Configuration port (CFG)	
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)
Application Ports	
Application Serial port (PRT1, PRT2) (Serial Modules)	Two RJ45 RS-232/422/485 Application ports

Functional Specifications

The MVI46-103M module supports the IEC 60870-5-103 protocol to the following specifications:

- The IEC 60870-5-103 communication driver is built in accordance to the approved IEC specification
- Support for the storage and transfer of up to 4000 registers to/from the SLC processor's M1 file
- User-definable module memory usage
- The module has two independent master ports, each configurable via a simple configuration file
- Supports up to 32 sessions (controlled devices) between the two ports
- Supports up to five sectors (separate databases) for each session, with individual database definition for each sector
- Total of 1000 user configurable commands to control data transfer to/from devices (controlled devices)
- Supports clock synchronization from/to the processor
- Event data received from the Control Devices updates the module database (Date and Time stamping is not stored or used by module)
- Class 1 and Class 2 delay parameters are configurable for each session
- An IEC Interoperability Document for the module is available from the web site, which fully documents data types supported by 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 the inRAx 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.