



DATASHEET

IEC 60870-5-103 Master Communication Module MVI69-103M



The MVI69-103M IEC 60870-5-103 Master Communication Module allows CompactLogix™ and MicroLogix™ 1500 LRP backplane I/O compatible processors to interface easily with IEC 60870-5-103 compatible devices. Devices commonly supporting the protocol include relays, breakers, substation communication modules and other serial communication devices used in power monitoring.

The MVI69-103M 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 MVI69 module and the processor over the backplane.

Features	Benefits
Licensed Backplane Technology	<ul style="list-style-type: none"> Manufactured under license from Rockwell Automation Installs as a Generic 1769 module; sample ladder logic included View module data and status in RSLogix 5000 controller tags and UDTs
IEC 60870-5-103 Master protocol interface	<ul style="list-style-type: none"> The module supports up to 16 total field devices between its two IEC-103 Master ports The two communication ports can be independently configured, allowing two separate field networks to be implemented
Easy to configure and monitor	<ul style="list-style-type: none"> Simple text file to configure module, protocol, port parameters LED diagnostics for at-a-glance health check Easy to use menu-driven hardware and protocol diagnostics View module database contents through serial connection to desktop PC
Backed by ProSoft Technology	<ul style="list-style-type: none"> 20-year history of delivering high-quality, reliable solutions designed with you in mind Free, unlimited, worldwide Technical Support by phone for pre-sale, set-up, or troubleshooting support helps you get going sooner and stay running longer Three-Year Warranty ensures reliability and protects against equipment failures Free ProSoft Software tools tightly integrate with our hardware - A simple and quick, total solution to help you make our products fit your applications

Configuration

ProSoft Configuration Builder (PCB) provides a PC-based software configuration solution for quick and easy management of module configuration files, as well as viewing communication and network diagnostics. PCB is not only a powerful solution for new configuration files, but also allows you to import information from previously installed (known working) configurations into new projects.

General Specifications

- Single-slot, 1769 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. A sample ladder file with AOI is included.
- Configuration data obtained from configuration text file downloaded to module. A sample configuration file is included.
- Supports CompactLogix and MicroLogix 1500LRP Controllers except 1769-L23E-QBF1B, 1769-L16x, and 1769-L18x.

Functional Specifications

The MVI69-103M module supports the IEC 60870-5-103 protocol to the following specifications:

- The IEC 60870-5-103 communication driver is built in accordance with the approved IEC specification
- User-definable module memory usage
- The module has two independent master ports, each configurable via a simple configuration file
- Supports up to 16 sessions (controlled devices) between the two ports
- Supports up to three 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 website, which fully documents data types supported by the module

Hardware Specifications

Specification	Description
Dimensions	Standard 1769 single-slot module
Current Load	800 mA max @ 5 VDC Power supply distance rating of 2
Operating Temp.	0°C to 60°C (32°F to 140°F)
Storage Temp.	-40°C to 85°C (-40°F to 185°F)
Relative Humidity	5% to 95% (with no condensation)
LED Indicators	Power and Module Status Application Status Serial Port Activity Error Status
CFG Port (CFG)	RJ45 (DB-9F with supplied cable) RS-232 only No hardware handshaking
App Ports (P1,P2) (Serial modules)	RJ45 (DB-9F with supplied cable) RS-232, RS-422 and RS-485 modes supported. Both ports operate as individual IEC 60870-3-103 controlling units (Masters) 500 V Optical isolation from backplane
Shipped with Unit	RJ45 to DB-9M cables for each port 6-foot RS-232 configuration cable

Agency Approvals and Certifications

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www.prosoft-technology.com

Ordering Information

To order this product, please use the following:

IEC 60870-5-103 Master Communication Module

MVI69-103M

To place an order, please contact your local ProSoft Technology distributor. For a list of ProSoft Technology distributors near you, go to:

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