



# DATASHEET

## IEC 60870-5-104 Server Communication Module MVI69-104S

The MVI69-104S IEC 60870-5-104 Server Communication Module allows CompactLogix™ and MicroLogix™ 1500 LRP compatible processors to interface easily with IEC 60870-5-104 protocol-compatible hosts.

The MVI69-104S module acts as an input/output module between the IEC-60870-5-104 Ethernet network and the processor. Data transfer between the module and the processor is asynchronous from the actions on the network. Databases are defined by the user for the module to hold data as required by the protocol.

The MVI69-104S module is a powerful communication interface for CompactLogix and MicroLogix 1500 LRP processors (see General Specifications). Developed under license from Rockwell Automation, the module incorporates proprietary backplane technology that enables powerful data access to the processor.



| Features  | Benefits   |
|---|--|
| Licensed Backplane Technology                   | <ul style="list-style-type: none"> <li>◆ Manufactured under license from Rockwell Automation</li> <li>◆ High-speed data transfer between MVI69 module and processor</li> <li>◆ Installs as a Generic 1769 module; sample ladder logic included</li> <li>◆ View module data and status in RSLogix 5000 controller tags and UDTs</li> </ul>  |
| IEC 60870-5-104 server protocol interface       | <ul style="list-style-type: none"> <li>◆ Adds an IEC 60870-5-104 server (slave) input and output link to an Ethernet network</li> <li>◆ IEC 60870-5-104, Edition 2 data types and extended Cause of Transmission support</li> <li>◆ Advanced Event Buffer reporting controls allow better network data bandwidth utilization</li> </ul>  |
| ProSoft Configuration Builder software included | <ul style="list-style-type: none"> <li>◆ Graphical drag-and-drop configuration tool for simple module configuration</li> <li>◆ Easy-to-use diagnostics window with menu-driven hardware and protocol diagnostics</li> <li>◆ View module database contents through serial connection to a desktop PC</li> </ul>   |
| Backed by ProSoft Technology                    | <ul style="list-style-type: none"> <li>◆ 20-year history of delivering high-quality, reliable solutions designed with you in mind</li> <li>◆ Free, unlimited, worldwide Technical Support by phone for pre-sale, set-up, or troubleshooting support helps you get going sooner and stay running longer</li> <li>◆ Three-Year Warranty ensures reliability and protects against equipment failures</li> <li>◆ Free ProSoft Software tools tightly integrate with our hardware - A simple and quick, total solution to help you make our products fit your applications</li> </ul> |

## 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 1500 LRP Controllers except 1769-L23E-QBFC1B, 1769-L16x, and 1769-L18x.

## Functional Specifications

- Protocol implementation conforms to the IEC 60870-5-104 specification and parameters are fully configurable by the user
- The module accepts commands from an attached Client unit (Master) on the network and generates unsolicited messages. These sets of messages are either spontaneous or cyclic. This data can be derived from the processor. The remote Client device uses the fully configured databases in the module to monitor inputs and control outputs
- Supports clock synchronization (set in ladder) from the module to the processor, or from the processor to the module
- Supports group interrogation
- Processes information in Monitor direction and Control direction
- Configurable Monitor and Control data located in the module database
- Supports time stamp events

## Hardware Specifications

| Specification               | Description   |
|-----------------------------|---|
| Dimensions                  | Standard 1769 single-slot module  |
| Current Load                | 800 mA max @ 5 VDC<br>Power supply distance rating of 2 (L43 and L45 installations on first 2 slots of 1769 bus)  |
| 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<br>Application Status<br>CFG Port Activity<br>Ethernet Port Activity<br>Error Status  |
| CFG Port (CFG)              | RJ45 (DB-9M with supplied cable)<br>RS-232 only<br>No hardware handshaking  |
| App Port (Ethernet modules) | 10/100 Base-T Ethernet compatible interface<br>Electrical Isolation 1500 Vrms at 50 Hz to 60 Hz for 60 s, applied as specified in section 5.3.2 of IEC 60950: 1991<br>Ethernet Broadcast Storm Resiliency = less than or equal to 5000 [ARP] frames-per-second and less than or equal to 5 minutes duration |
| Shipped with Unit           | RJ45 to DB-9M cables for each port<br>6-foot RS-232 configuration cable   |

## Agency Approvals and Certifications

Please visit our website: [www.prosoft-technology.com](http://www.prosoft-technology.com)



## Additional Products

ProSoft Technology® offers a full complement of hardware and software solutions for a wide variety of industrial communication platforms. For a complete list of products, visit our web site at:

[www.prosoft-technology.com](http://www.prosoft-technology.com)

## Ordering Information

### IEC 60870-5-104 Server Communication Module

MVI69-104S

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

[www.prosoft-technology.com](http://www.prosoft-technology.com)

and select *Where to Buy* from the menu.

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