

# DATASHEET

## FA Control Network Communication Module MVI69-FLN

The MVI69-FLN FA Control Network communication module is a single-slot solution that allows Rockwell Automation CompactLogix processors to communicate with FL-net protocol-compatible devices. The module implements the FL-net version 2.00 (OPCN-2) specification, as defined by JEMA (The Japan Electrical Manufacturers Association) for the standard FA control network. FL-net is a master-less system.

The MVI69-FLN module acts as a gateway between the FL-net network and the CompactLogix/MicroLogix backplane. The data transfer from the CompactLogix/MicroLogix processor is asynchronous from the actions on the FL-net network. The module's internal database can be used to exchange Area 1 and Area 2 cyclic, network, and module status data between the processor and the FL-net network.

FL-net is a peer-to-peer networking system. All FL-net devices transfer data using two shared databases with fixed sizes. The MVI69-FLN module accepts commands to control and monitor the data stored in these two databases. This data is passed between the module and the CompactLogix/MicroLogix processor over the backplane for use in customer applications.



### Features

### Benefits

#### FL-net Network

- ◆ Peer-to-Peer (masterless) token-passing network control method
- ◆ FA link protocol on Ethernet UDP/IP
- ◆ Cyclic data transfer supports virtual memory Area 1 and Area 2. The cyclic data is mapped to the module's I/O area.

#### ProSoft Configuration Builder software included

- ◆ Graphical drag-and-drop configuration tool for simple module configuration
- ◆ Easy-to-use diagnostics window with menu-driven hardware and protocol diagnostics
- ◆ View module database contents through serial connection to a desktop PC

#### Backed by ProSoft Technology

- ◆ 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 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 memory and processor controller tags. 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

- Personality Module: Incorporates a non-volatile Compact Flash memory for storing the module's setup and network configuration data (or personality). This allows restoring of a module by simply exchanging the Personality Module with no PC or configuration required.
- Web server: Provides product information and firmware updates.

### Server Functionality

- Log data read service
- Log data clear service
- Network Parameter Read
- Return Message
- Profile Read
- Network Management Table: According to FL-net version 2.00 specification
- Own-node Management Table: According to FL-net version 2.00 specification
- Participating Node Management Table: According to FL-net version 2.00 specification
- Network configurable via a text file

## Hardware Specifications

Specification	Description
Dimensions	Standard 1769 single-slot module
Current Load	800 mA max @ 5 VDC 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 Application Status CFG Port Activity Ethernet Port Activity Error Status
CFG Port (CFG)	RJ45 (DB-9M with supplied cable) RS-232 only No hardware handshaking
App Port (Ethernet modules)	10/100 Base-T Ethernet compatible interface 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 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 6-foot RS-232 configuration cable

## Agency Approvals and Certifications

Agency

ATEX

DNV

CE

CB Safety

GOST-R

CSA

cULus

