MVI69L-MBS

Modbus Serial Lite Communication Module

ProSoft MVI69L-MBS is a Modbus serial communication module for compatible CompactLogix control systems. Its application port can be configured for Modbus master or slave service.

Data path

CompactLogix tags to module registers to the serial field network

Configuration owner

Command schedule and register mapping remain in the approved controller project

Service boundary

Port jumper position and field cable drawing must describe the same interface

Acceptance focus

Prove host recognition and representative device data after replacement

Verified technical data

Host platform	CompactLogix 1769 I/O bus	**Controller requirement**	Version 16 or later per product data sheet
Application port role	Modbus master or slave	**Protocol formats**	Modbus RTU and ASCII
Serial standards	RS-232, RS-422, RS-485 selectable	**Master command capacity**	Up to 30 configured commands
I/O transfer	240-word data exchange	**Serial rate**	110 to 115,200 baud

Serial settings and command capacity apply to the documented MVI69L-MBS module; host behavior depends on the installed controller program and module configuration.

MVI69L-MBS

Configuration and engineering context

Data bits	7 or 8	**Stop bits**	1 or 2
Parity	None, even or odd	**Slave station range**	1 to 247
Diagnostic Ethernet	10/100 Mbps	**Module isolation**	500 V optical isolation
Operating temperature	0 to 60 °C	**Humidity**	5–95% RH, noncondensing
Mounting	Single 1769 slot		

The module exchanges configured Modbus data with the CompactLogix controller through the 1769 I/O bus. An application port connects the selected serial device network, while the Ethernet connector supports configuration and diagnostic access.

A master project can schedule up to 30 commands. In slave service, the station address and data mapping must agree with the external master. The controller project determines which module registers are transferred into application tags.

The RS-232, RS-422 or RS-485 interface is set by hardware jumpers and must match the field wiring. Keep the original configuration, port parameters and controller program together when replacing a module; verify each exchanged value before returning the link to service.

Controller platform reference: CompactLogix 1769 I/O bus. Match the controller firmware, serial wiring and saved project.

What acceptance test should follow commissioning of MVI69L-MBS?

Confirm controller recognition, port activity and communication diagnostics, then compare expected reads and controlled writes with the device and host tag values under the site test plan.

MVI69L-MBS

System context and application

Modbus master polling

Issue configured reads or writes to compatible serial slave devices under the engineered command schedule.

Modbus slave exchange

Present mapped module registers to a configured external Modbus master.

Serial interface integration

Select RS-232 for point-to-point wiring or a supported RS-422/RS-485 arrangement matching the installed network.

CompactLogix data bridge

Transfer selected protocol data between the serial network and the 1769 controller project.

Lifecycle and offered unit

Family phase	The MVI69L product family is active under the applicable manufacturer lifecycle statement.
Supply boundary	Apter Power availability is confirmed in the quotation separately from manufacturer lifecycle status.
Identification	Compare the available unit marking, hardware revision and serial port arrangement with the installed module.
Exact-unit review	Confirm the complete MVI69L-MBS marking and hardware revision when planning support or a replacement.
Offered module	ProSoft MVI69L-MBS; New, original product.
Included items	Confirm the communication cable and other installation accessories in the quotation; they are not assumed to accompany the module.

How should conflicting power-placement figures for MVI69L-MBS be handled?

Check the installed hardware revision and the applicable ProSoft manual before calculating the 1769 power budget or slot distance; the available OEM pages state different current and placement limits.

MVI69L-MBS

Engineering answers and service checks

How should the application port of MVI69L-MBS be changed from RS-232 to RS-485?

Change the documented hardware jumper setting, use the corresponding cable pinout and review network termination, bias and station addressing before restoring communication.

Can MVI69L-MBS be installed in a MicroLogix 1500 rack?

No. The current ProSoft product data identifies CompactLogix on the 1769 bus and explicitly excludes MicroLogix 1500; check the exact host and program revision.

How should serial framing be matched for MVI69L-MBS?

Set baud rate, data bits, parity and stop bits to the connected devices. A link with mismatched framing can show timeouts or invalid replies even when the electrical interface is correct.

Why can MVI69L-MBS appear healthy while Modbus values remain stale?

The host may recognize the module even when serial framing, slave address, command schedule or register mapping disagrees with the device. Review port diagnostics and a known register exchange.

What changes when MVI69L-MBS operates as a Modbus slave?

An external master initiates transactions. The module station address and exposed register map must match that master, while the controller project maintains the data exchanged with those registers.

What should be captured before replacing MVI69L-MBS?

Save the controller project, module configuration, command list, device addresses, jumper positions and a baseline of diagnostic counters and representative process values.

Technical basis: ProSoft Technology MVI69L-MBS product data sheet and MVI69L-MBS User Manual.

Related product references

- ProSoft MVI56-MBP
- ProSoft MVI94-ADM
- ProSoft PLX31-EIP-MBS

Technical enquiry

sales13@apterpower.com | +86 18030235313