

INDUSTRIAL AUTOMATION PRODUCT

MVI56-MCM

ControlLogix Modbus Master/Slave Communication Module

ProSoft MVI56-MCM is a single-slot ControlLogix Modbus Master/Slave communication module. Its two configurable serial application ports connect a ControlLogix processor with Modbus RTU or ASCII devices.

IDENTITY	VERIFIED VALUE
Manufacturer	ProSoft
System family	Rockwell Automation ControlLogix 1756 platform
Part number	MVI56-MCM
Product role	Bridges the ControlLogix backplane to Modbus serial networks
Lifecycle	Installed product record

DOCUMENT SCOPE

Exact-article identity, technical data, host role, installation checks, applications, precautions and engineering verification.

MODEL-SPECIFIC ENGINEERING NOTE

Install MVI56-MCM as the documented generic 1756 module and preserve the sample-ladder, controller-tag, port-mode and Modbus database configuration.

APTER POWER SALES TEAM

WHATSAPP / PHONE +86 180 3023 5313
EMAIL sales13@apterpower.com
WEBSITE www.apterpower.com



MVI56-MCM

Technical Specifications

Technical values below are limited to the named ProSoft product record and directly applicable manufacturer documentation.

PARAMETER	VALUE	PARAMETER	VALUE
Module type	Modbus Master/Slave communication module	Baud rate	110 to 115200 baud
Backplane	ControlLogix 1756, single slot	Slave node address	1 to 247
Installation	Local or remote rack	Master commands	Up to 100 per master port
Protocol modes	Modbus RTU and ASCII	Backplane load	800 mA at 5 V DC; 3 mA at 24 V DC
Application ports	2 x RJ45 serial ports	Operating temperature	0 to 60 deg C
Serial standards	RS-232, RS-422 or RS-485	Optical isolation	500 V from backplane

Verified Product Record

DATA GROUP	VERIFIED VALUE
Installed host / carrier	Rockwell Automation ControlLogix 1756 platform
Primary system role	Bridges the ControlLogix backplane to Modbus serial networks
Connection boundary	Install MVI56-MCM as the documented generic 1756 module and preserve the sample-ladder, controller-tag, port-mode and Modbus database configuration.
Controlled acceptance duty	ControlLogix to Modbus instrumentation

ENGINEERING BOUNDARY

Confirm MVI56-MCM, ControlLogix chassis and slot, module hardware, port jumpers, RS-232/422/485 wiring, RTU/ASCII mode, baud/parity/data/stop-bit settings, node addresses, ladder and tag mapping, grounding and controlled message tests before commissioning.

Pre-Installation Checks

- 1

Confirm MVI56-MCM on the module label and project bill of materials.
- 2

Place the controlled process and all mapped outputs in the approved maintenance state.
- 3

De-energize the rack or establish the approved non-hazardous condition before disconnecting the module.
- 4

Back up controller tags, sample ladder, module database and both port configurations.

Documented Service Record

RECORD ITEM	REQUIRED ENTRY
As-found article	MVI56-MCM
Installed host	Rockwell Automation ControlLogix 1756 platform
Connection record	Capture before removal
Controlled release	Diagnostics and functional proof

System Role and Architecture

ProSoft MVI56-MCM is a single-slot ControlLogix Modbus Master/Slave communication module. Its two configurable serial application ports connect a ControlLogix processor with Modbus RTU or ASCII devices.

FUNCTION 1

Bridges the ControlLogix backplane to Modbus serial networks

FUNCTION 2

Runs each application port as a Modbus master or slave

FUNCTION 3

Supports RTU binary and ASCII message formats

FUNCTION 4

Exposes module status and database information for diagnostics

Matched System Components

NO.	DOCUMENTED COMPONENT / ROLE
1	Rockwell Automation ControlLogix 1756 platform
2	ControlLogix 1756, single slot
3	ControlLogix to Modbus instrumentation
4	Install MVI56-MCM as the documented generic 1756 module and preserve the sample-ladder, controller-tag, port-mode and Modbus database configuration.

System Integration Record

INTEGRATION ITEM	DOCUMENTED ROLE
Host identity	Rockwell Automation ControlLogix 1756 platform
Interface role	Bridges the ControlLogix backplane to Modbus serial networks
Field / power context	The module occupies one local or remote 1756 slot and exchanges data with the ControlLogix processor through ladder logic and controller tags.
Commissioning evidence	Prove requested Modbus reads and writes on both ports without unintended controller-data changes.

Installation and Connection Checks

- 1

Record jumper positions, RJ45/DB9 adapters, serial standards, node addresses and cable shields.
- 2

Install the module in the documented slot and restore the approved generic-module definition and ladder logic.
- 3

Review module, backplane, application and serial-activity LEDs plus command and slave status data.
- 4

Prove requested Modbus reads and writes on both ports without unintended controller-data changes.

MANUFACTURER SOURCE RECORD

MVI56-MCM Datasheet and User Manual
ProSoft MVI56_MCM_DS001 dated 2019-03-22; MVI56-MCM User Manual dated 2011-10-27

Applications and Engineering Context

ControlLogix to Modbus instrumentation

Exchanges register and coil data with approved serial process devices.

SCADA serial gateway station

Presents controller data to a configured Modbus supervisory master.

Dual-network master polling

Runs separate command lists on two serial application ports for field-device acquisition.

Legacy Modbus device integration

Adds serial protocol access without replacing the installed ControlLogix processor.

TECHNICAL NOTE

Install MVI56-MCM as the documented generic 1756 module and preserve the sample-ladder, controller-tag, port-mode and Modbus database configuration.

Model-Specific Acceptance Evidence

CHECK	ACCEPTANCE CONDITION
Identity	MVI56-MCM recorded
Host / carrier	Rockwell Automation ControlLogix 1756 platform
Physical interface	Bridges the ControlLogix backplane to Modbus serial networks
Configuration	Review module, backplane, application and serial-activity LEDs plus command and slave status data.
Functional proof	Prove requested Modbus reads and writes on both ports without unintended controller-data changes.

IMPORTANT NOTICE

Confirm MVI56-MCM, ControlLogix chassis and slot, module hardware, port jumpers, RS-232/422/485 wiring, RTU/ASCII mode, baud/parity/data/stop-bit settings, node addresses, ladder and tag mapping, grounding and controlled message tests before commissioning.

Controlled Release Summary

RELEASE ITEM	MODEL-SPECIFIC CONDITION
Article identity	MVI56-MCM
Approved role	ControlLogix to Modbus instrumentation
Final validation	Prove requested Modbus reads and writes on both ports without unintended controller-data changes.

Engineering Precautions

1	Confirm MVI56-MCM on the module label and project bill of materials.	2	Place the controlled process and all mapped outputs in the approved maintenance state.
3	De-energize the rack or establish the approved non-hazardous condition before disconnecting the module.	4	Back up controller tags, sample ladder, module database and both port configurations.
5	Record jumper positions, RJ45/DB9 adapters, serial standards, node addresses and cable shields.	6	Install the module in the documented slot and restore the approved generic-module definition and ladder logic.
7	Review module, backplane, application and serial-activity LEDs plus command and slave status data.	8	Prove requested Modbus reads and writes on both ports without unintended controller-data changes.

Related Products on Apter Power

MODEL	SYSTEM ROLE	APTER POWER PAGE
MVI56-MBP	Modbus Plus module	View MVI56-MBP page
MVI69E-MBTCP	Modbus TCP module	View MVI69E-MBTCP page
PLX32-EIP-MBTCP	EtherNet/IP to Modbus TCP gateway	View PLX32-EIP-MBTCP page
MVI56E-MNETCR	ControlLogix interface module	View MVI56E-MNETCR page
3100-INUSA	industrial communication interface	View 3100-INUSA page
MVI46-GSC	generic ASCII serial module	View MVI46-GSC page
RLX2-IHW	industrial wireless hotspot	View RLX2-IHW page
MVI46-MNETC	Ethernet communication module	View MVI46-MNETC page

MANUFACTURER SOURCE RECORD

MVI56-MCM Datasheet and User Manual

ProSoft MVI56_MCM_DS001 dated 2019-03-22; MVI56-MCM User Manual dated 2011-10-27

APTER POWER SALES TEAM

WHATSAPP / PHONE +86 180 3023 5313

EMAIL sales13@apterpower.com

WEBSITE www.apterpower.com



MVI56-MCM