PROSOFT MVI56E-MCMXT

Modbus Communication Module

PROSOFT MVI56E-MCMXT is an enhanced Modbus RTU/ASCII master/slave communication module for the ControlLogix backplane, with two independently configurable serial ports and extreme-environment construction.

Job objective

Replace, install or verify the exact unit while preserving unrelated wiring, configuration, dimensions, weight and stored product data.

Safe-work boundary

Identify Match the complete model and every suffix to the physical unit.	**Isolate** Apply the plant-approved electrical, process and stored-energy isolation.
Preserve Back up configuration and photograph all connections and settings.	**Control** Use ESD protection and revision-controlled documentation.

Product-specific hazards and controls

1 Match the complete PROSOFT MVI56E-MCMXT model, not the standard MVI56E-MCM, before installation.	**2** Record the ControlLogix slot, module configuration, IP settings, serial-port modes, and database mapping before replacement.
3 Select RS-232, RS-422, or RS-485 jumpers for each serial port before connecting field wiring.	**4** Confirm serial baud rate, data bits, parity, stop bits, and RTU or ASCII mode for every attached network.

Required evidence before work

Nameplate photo, installed-position record, connection map, configuration or jumper record, fault history and approved acceptance plan.

Readiness and interface checklist

Exact identity	MVI56E-MCMXT matches the work order and physical unit
Installed position	Rack, slot, panel and functional assignment recorded
Configuration	Project data, jumpers, settings or calibration state captured
Connections	Every cable, terminal, shield and polarity labeled
Condition	Board, housing, connectors and packaging inspected
Test plan	Expected states, safe response and acceptance evidence agreed

Interface preparation

Backplane	ControlLogix input and output images with asynchronous Modbus data transfer
Serial	Two RJ45 serial ports supplied for RS-232, RS-422, or RS-485 service
Ethernet	10/100Base-T RJ45 service interface with link and activity indicators
Diagnostics	Application and module status LEDs plus a four-character alphanumeric display

Pre-job evidence review

H1 Two independently configurable Modbus serial ports	**H2** RTU and ASCII master/slave operation
H3 10,000-word user-controlled database	**H4** Conformal-coated MCMXT extreme-environment hardware

03 / INSTALLATION SEQUENCE

Controlled replacement workflow

1	Confirm isolation and absence of hazardous energy
2	Compare removed and replacement identities and revisions
3	Photograph, label and verify all connections and settings
4	Remove the existing assembly using ESD-safe handling
5	Inspect mounting, connectors, grounding, ventilation and surrounding hardware
6	Install the exact replacement without forcing connections
7	Restore cables, jumpers and settings from the controlled record
8	Complete final visual, continuity and polarity checks before energization

STOP CONDITIONS

Identity

Stop if the complete model or revision does not match.

Connection

Stop if connector orientation, polarity or terminal mapping is unresolved.

Configuration

Stop if the as-found jumper, project or adjustment record is missing.

System

Stop if grounding, cooling or the safe-state assignment is uncertain.

Staged return to service

Stage 1	Visual inspection, isolation release and controlled power-ready state
Stage 2	Apply power under observation and stop on abnormal indicators, heat or sound
Stage 3	Confirm module recognition, status indications and surrounding-system health
Stage 4	Verify every affected connection, signal or relay path
Stage 5	Exercise the documented function and configured safe response
Stage 6	Archive measurements, settings, results and as-left configuration

Product-specific acceptance focus

5

Keep the 5 V and 24 V backplane current requirements within the rack power budget.

6

Verify the installed firmware and Add-On Instruction versions before configuring more than 100 commands.

7

Use shield, grounding, termination, and network-topology practices appropriate to the selected serial standard.

8

Commission both serial channels, backplane data transfer, diagnostics, and controller tag mapping before release.

Acceptance evidence

Identity

Photo and record show the exact installed model.

Connections

Terminal, cable and connector checks are complete.

Function

The affected command, indication or supply path has been exercised.

Safe state

Loss-of-power or loss-of-command behavior matches the approved design.

Fault isolation and final record

1	Unexpected state: stop and capture evidence
2	Recheck identity, power boundary, position and connections
3	Compare configuration and revision-controlled records
4	Test the surrounding system before condemning the unit
5	Restore a safe state and document the verified outcome

Apter Power handover record

Model identity	Keep the complete PROSOFT MVI56E-MCMXT identity in purchasing, installation, and acceptance records.
Verification boundary	Confirm the physical nameplate, installed position, and revision-controlled project documents before field work.
Apter Power support	Use the contact details and Apter Power website links in this document for product and sourcing support.

Related Apter Power references

Related Apter Power references	Scope note
PROSOFT MVI46-ADMNET	Portfolio reference only; verify compatibility independently.
PROSOFT MVI56-MCM	Portfolio reference only; verify compatibility independently.
PROSOFT RLX2-IHW	Portfolio reference only; verify compatibility independently.

	Apter Power technical support sales13@apterpower.com +86 180 3023 5313 www.apterpower.com	Model record PROSOFT MVI56E-MCMXT Modbus Communication Module Verify the complete nameplate before installation.