ProSoft MVI56E-GSC

Complete Product Information

ProSoft MVI56E-GSC connects a ControlLogix controller to ASCII serial devices through two independently configured ports, with Ethernet-based configuration and diagnostics.

Operating context

The two application ports operate independently, allowing each connected device to use its own baud rate, framing and handshake method. Each port can receive and transmit strings or byte streams up to 4096 bytes. The module moves these messages through a 500-byte input image and a 496-byte output image; the controller logic performs the application-specific parsing, command construction and response handling.

Receive completion can be determined by termination characters, elapsed message timeout, intercharacter delay or a configured packet length. These conditions can be combined in a termination bitmap, with the first satisfied condition completing the message. Stream mode requires particular care because continuous traffic can demand time-critical controller processing; framing should follow the connected device protocol rather than an arbitrary fixed delay.

Port parameters reside in the controller configuration tags and are transferred to the module by the sample logic or Add-On Instruction. AOI integration requires RSLogix 5000 version 16 or later; earlier supported projects use the appropriate sample ladder. The Ethernet service port provides access to ProSoft Configuration Builder diagnostics, communication analysis and module status. Following configuration changes, use the documented warm-boot, cold-boot or power-cycle method and prove the data exchange before releasing the process.

Identity and technical snapshot

Manufacturer	ProSoft
Complete model	MVI56E-GSC
Host platform	Allen-Bradley ControlLogix; one 1756 chassis slot
Controller firmware	Version 10 or later; verify software and sample-program requirements
AOI software requirement	RSLogix 5000 version 16 or later
Serial channels	2 independent application ports
Serial electrical modes	RS-232, RS-422 or RS-485; jumper selected

02 Interface and operating limits

Serial port connectors	RJ45; use the matching RJ45-to-DB9 adapter and cable
Serial baud rate	110 to 115200 bit/s
Serial data bits	5, 6, 7 or 8
Serial stop bits	1 or 2
Serial parity	None, odd or even
Handshaking	None, RTS/CTS, DTR/DSR or XON/XOFF
Serial message capacity	Up to 4096 bytes per port
Receive termination	Termination characters, timeout, intercharacter delay or packet length
Termination character count	0-12 characters
Receive termination selection	Bitmap; combine applicable conditions
RTS on/off delay	0-65535 ms
Backplane I/O image	500-byte input; 496-byte output

Ethernet service port	10/100BaseT RJ45; automatic crossover detection
Configuration tools	Controller configuration tags; ProSoft Configuration Builder diagnostics
Backplane current at 5 V DC	800 mA
Backplane current at 24 V DC	3 mA
Serial isolation	500 V optical isolation from the backplane
Operating temperature	0 to +60 °C; MVI56E-GSC
Storage temperature	-40 to +85 °C
Humidity	5-95% RH, noncondensing
Operating shock	30 g
Non-operating shock	50 g
Vibration	5 g, 10-150 Hz

The module transports generic ASCII messages; the controller application constructs and interprets device-specific commands and responses. RS-232/422/485 is selected by hardware jumpers. Controller tags define serial parameters and receive termination; the Ethernet port supports configuration access and diagnostics.

03 Integration and precautions

Instrument data collection

Receive formatted serial measurement strings, define the actual message ending and parse the required fields in the controller.

Barcode and identification readers

Accept reader output through a dedicated serial channel, using the correct baud rate, framing and message boundaries.

Printer and display commands

Build device-specific ASCII commands in controller logic and transmit them through the selected port, with the required handshaking.

Independent serial device channels

Configure two different serial devices separately while retaining distinct receive buffers, transmit commands and controller diagnostics.

Check the power budget

Allow 800 mA at 5 V DC and 3 mA at 24 V DC on the backplane. Use the standard GSC operating range of 0-60 °C.

Set the port jumpers

Select RS-232, RS-422 or RS-485 separately for each application port before connecting the field cable. Match the adapter and wiring to that electrical mode.

Keep the setup jumper protected

The setup jumper is shipped OFF for firmware write protection. Normal configuration does not require enabling firmware updates.

Match controller integration

Check the actual slot, I/O connection and sample ladder or AOI version. AOI projects require RSLogix 5000 version 16 or later.

Define complete messages

Configure receive termination for the actual device. Set a nonzero transmit timeout; a zero value can produce transmit error 0400.

Prove failure and restart behavior

Review the backplane failure threshold and application response. After a configured failure shuts down serial communication, use the documented reset procedure and verify restored data exchange.

04 Technical questions and decisions

Does MVI56E-GSC provide a complete device protocol driver?

It transfers generic ASCII strings or byte streams. Controller logic must build outgoing commands and interpret incoming messages for the connected device; protocol-specific parsing is not supplied merely by selecting a serial mode.

Can the two serial ports of MVI56E-GSC use different settings?

Yes. Each application port is configured independently. Match its electrical mode, baud rate, data bits, parity, stop bits and handshake method to its own connected device.

How does MVI56E-GSC decide that a received message is complete?

Select termination characters, message timeout, intercharacter delay or packet length in the receive termination bitmap. Conditions can be combined, and the first satisfied selected condition completes the message.

How much serial data can MVI56E-GSC handle in one message?

Each port supports strings or byte streams up to 4096 bytes. Data moves through the controller I/O image using the supplied logic; allow for message segmentation and application processing time.

Which programming version is needed for the AOI of MVI56E-GSC?

The Add-On Instruction requires RSLogix 5000 version 16 or later. Earlier supported projects use the appropriate sample ladder. Match the controller firmware, I/O definition and project revision before commissioning.

What is the Ethernet port on MVI56E-GSC used for?

The 10/100BaseT service port supports ProSoft tool access, module status, diagnostics and firmware-related service functions. It is distinct from the two serial application channels.

Why can MVI56E-GSC report transmit error 0400?

A zero transmit timeout is an invalid setting for normal transmission and can cause error 0400. Configure a suitable nonzero WTimeout value and check the connected device handshaking before retrying.

What happens after backplane failures on MVI56E-GSC?

A configured nonzero consecutive-failure threshold can shut down serial communication when exceeded. A value of zero disables this shutdown. Restore the controller connection and use the documented reset method before checking application traffic.

05 Lifecycle, support and offered unit

Lifecycle status

MVI56E-GSC: ProSoft lists this model as Active in its product lifecycle statement dated March 31, 2026. At that date, no transition to Limited Availability or Discontinued was planned or expected before December 31, 2031.

ProSoft lifecycle statement: The manufacturer uses Active, Active Mature, Limited Availability and Discontinued phases. The dated statement is a planning reference, not a guarantee that the phase cannot change.

Request current support and replacement guidance using the complete model, firmware revision and controller configuration. Apter Power availability is confirmed separately from the manufacturer lifecycle phase.

Related ProSoft references

Portfolio navigation only; no compatibility or substitution is implied.

ProSoft MVI56E-MNETR	View product
ProSoft MVI56E-MCM	View product
ProSoft PLX31-EIP-MBS	View product
ProSoft PS69-DPM	View product

Retain reproducible settings

Keep the controller project, module firmware, slot path, port jumpers, serial parameters and message-framing criteria together. Record a representative valid command and response for each peripheral so later service can separate protocol errors from wiring faults.

Available unit details

ProSoft MVI56E-GSC. Condition: New, original product. Confirm the module, RJ45-to-DB9 adapters, serial cables and any configuration cable individually in the quotation.

Technical reference

ProSoft MVI56E-GSC/GSCXT ControlLogix Platform Enhanced Generic ASCII Serial Communication Module User Manual, October 13, 2025

The standard MVI56E-GSC temperature rating applies here; GSCXT extended-temperature ratings are excluded. Serial message formatting and interpretation remain part of the controller application.

Discuss the complete offered reference

Send label photos, quantity and the installed application reference. Condition: New, original product.

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