



Class 1, Division 2,
Groups A, B, C, and D Hazardous
Locations.



Siemens 3964R Protocol Communication Module MVI56-3964R

The module is ideal in control configurations where there is a need for the ControlLogix controller to exchange data with other non-Rockwell Automation control devices in low speed applications.

The MVI56-3964R can communicate with or without RK512 devices using two RS-232, RS-422 communication lines (ports). The ports operate independently from each other.

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All ProSoft Technology products are backed with unlimited technical support. Contact our worldwide Technical Support team directly by phone or email:

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Siemens 3964R Protocol Communication Module

MVI56-3964R

The MVI56 3964R Protocol module from ProSoft Technology allows point-to-point communication between a ControlLogix controller (1756-L1, -L1Mx, L55, L63) and a partner with 3964R (with or without RK512) communication capability.

Features and Benefits

The 3964R protocol (with or without RK512) was designed by Siemens for bi-directional data communication through a point-to-point connection. It is a master-slave protocol with read and write access. A BCC checksum ensures the safety of the transfer.

General Specifications

- Single Slot – 1756 backplane compatible
- Local or remote rack
- 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 and processor.
- Configuration data obtained through user-defined ladder. Sample ladder file included

Hardware Specifications

Specification	Description
Backplane Current Load	800 mA @ 5 V
Operating Temperature	0 to 60°C (32 to 140°F)
Storage Temperature	-40 to 85°C (-40 to 185°F)
Shock:	30g Operational 50g non-operational
	Vibration: 5 g from 10 to 150 Hz
Relative Humidity	5 to 95% (non-condensing)
LED Indicators:	Module Status Backplane Transfer Status Application Status Serial Activity
Debug/Configuration port (CFG)	
CFG Port (CFG)	RJ45 (DB-9M with supplied cable) RS-232 only

Specification	Description
Application ports (PRT1 & PRT2)	
Full hardware handshaking control, providing radio, modem and Multi-drop support	
Software configurable communication parameters	Baud rate: 110 to 115,200 baud, depending on protocol RS-232, 485 and 422 Parity: none, odd or even Data bits: 5, 6, 7, or 8 Stop bits: 1 or 2 RTS on/off delay: 0 to 65535 ms
App Ports (P1,P2) (Serial modules)	RJ45 (DB-9M with supplied cable) RS-232 handshaking configurable 500V Optical isolation from backplane
Shipped with Unit	RJ45 to DB-9M cables for each port 6-foot RS-232 configuration cable

Functional Specifications

- Single-slot, ControlLogix backplane compatible
- Multiple modules can be placed in a rack up to the chassis power supply limit
- While in 3964R with RK512 mode on PRT1 and PRT2, DB-SEND and DB-FETCH instructions can be initiated from the ControlLogix processor or received by the communications partner
- While in 3964R without RK512 mode on PRT1 and PRT2, data can be sent from the ControlLogix processor or be received from the communications partner
- The maximum transfer rate is 512 bytes in any mode
- Data byte swapping can be configured to adjust to a different word format
- While in 3964R with RK512 mode on PRT1 and PRT2, evaluation of the header information DB (data block), DW (data word) and coordination bytes 9 and 10 is possible
- Communication activity and diagnostics are available through LEDs and acknowledgment telegrams
- Example programs are provided for using the 3964R protocol with a Siemens ASM 420 / ASM 424 MOBY-I/E communication interface

Ladder Logic

Ladder logic programming in the ControlLogix processor is required in order to enable and support the Siemens 3964R protocol functionality. The ladder program handles the encoding/decoding of data transferred from the module as well as the initiation of protocol-specific functionality in the module. Example ladder programs are provided with the module to ease the implementation of the module in the user application.

Additional Products

ProSoft Technology offers a full complement of hardware and software solutions for a wide variety of industrial communication platforms.

Visit our web site at <http://www.prosoft-technology.com> for a complete list of products.

Ordering Information

To order this product, please use the following:

MVI56-3964R Siemens 3964R Protocol Communication Module

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