VersaMax™ SE (VMSE)

Serial to Ethernet Adaptor Version 3.4

(IC200SET001-JE)

EMERSON.

Warnings and Caution Notes as Used in this Publication

⚠ WARNING

Warning notices are used in this publication to emphasize that hazardous voltages, currents, temperatures, or other conditions that could cause personal injury exist in this equipment or may be associated with its use.

In situations where inattention could cause either personal injury or damage to equipment, a Warning notice is used.

⚠ CAUTION

Caution notices are used where equipment might be damaged if care is not taken.

Note: Notes merely call attention to information that is especially significant to understanding and operating the equipment.

These instructions do not purport to cover all details or variations in equipment, nor to provide for every possible contingency to be met during installation, operation, and maintenance. The information is supplied for informational purposes only, and Emerson makes no warranty as to the accuracy of the information included herein. Changes, modifications, and/or improvements to equipment and specifications are made periodically and these changes may or may not be reflected herein. It is understood that Emerson may make changes, modifications, or improvements to the equipment referenced herein or to the document itself at any time. This document is intended for trained personnel familiar with the Emerson products referenced herein.

Emerson may have patents or pending patent applications covering subject matter in this document. The furnishing of this document does not provide any license whatsoever to any of these patents.

Introduction

The VersaMax SE provides Ethernet to Serial communication connectivity in a DIN-rail mount package.

Important Product Information

Functional Compatibility

The default data rate with Ethernet option module firmware version 2.0 is 175000 bps. Micro firmware versions below 3.83 do not support 175000 bps. If firmware version 2.0 is to be used with Micro firmware versions prior to 3.83, the data rate on Ethernet Option module should be changed to 38400 bps or less, as per the requirement.

Problems Resolved

N/A

New Features and Enhancements

N/A

Restrictions and Open Problems

Restrictions/Open Problems	Description
Serial Load of Firmware does not work	Load firmware over the Ethernet network. This problem only occurs when the SNP/SRTP firmware is resident in the VMSE (which is the default firmware the VMSE is shipped with). Many error messages will occur; do not abort the operation wait; until you receive an error of a bad checksum; you can then reset the VMSE and it will contain the previous firmware before the load was attempted.
The Serial prompt * does not always appear after resetting the VMSE.	If the serial prompt asterisk (*) does not appear, follow this procedure: (1) press the reset button, (2) wait until the right amber serial LED turns off and the left amber serial LED turns on, and (3) enter xxx or xx1 to enter configuration or monitor mode.
Machine Edition and VersaPro do not always reconnect on power cycle of PLC or if serial cable between VMSE and PLC is disconnected	If the programming software does not reconnect, click on Abort and Connect to re-establish communications. On rare occasions, the programming software will need to be closed and restarted.
HMI does not always properly re-establish communications on power cycle of VMSE or PLC	To re-establish communications, use the CIMPLICITY Process Control panel to stop and restart the Master_TCPIP0 communication driver.
Setting the value of 9999 registers with Logicmaster takes 1 to 2 minutes	The operation occurs and is successful but the Logicmaster programming software appears to lock up. If you are setting large numbers of registers, be patient.

Restrictions/Open Problems	Description
Commanding a PLC to "write to flash"	In some larger applications, if the PLC is instructed to write to flash, the operation may take longer than the sixty-second maximum timeout period of the software.
Using Multiple Programmers	When multiple connections are attached to a PLC through the VMSE, if one programmer downloads to the PLC or instructs the PLC to write to flash, the other connections may be lost.
SRTP Write Channel COMMREQ not handled properly by VMSE	When a Client sends an SRTP Write Channel COMMREQ to write more than 4 words, the Server VMNM CPU that receives this command through VMSE goes into Stop Faulted mode. In this condition, the OK LED on VMNM CPU starts blinking. This issue is not observed when COMMREQ is applied to write 4 words or less. Recovery from this problem requires the unit to be turned OFF and back ON.

Upgrades

Applications with -Bx and later versions of the module that use the SNP driver and experience the issues detailed below should update their unit using the driver provided with the firmware release.

Hardware upgrades are not available or required.

The upgrade is available for download from the Technical Support website, https://www.emerson.com/Industrial-Automation-Controls/support.The upgrade kit numbers are 4A749947-001 R03 for IC200SET001-BC or 44A749947-001 R04 for IC200SET001-CC and later. The upgrade kit 44A749947-001R08 is for IC200SET001-FD, IC200SET001-FE and later.

Specifications

Supported Products and Protocols

SNP/SRTP Protocol

Product*	Version
VersaMax Nano & Micro	1.0 or greater
VersaMax modular	1.0 or greater
Series 90* -30	8.2 or greater
Series 90-20	**Not Supported**
Series 90-70	**Not Supported**
Series 90 micro	**Not Supported**
VersaPro*	Version 1.1 or greater
Logicmaster*	Version 9.02 or greater
Control	Version 2.30
CIMPLICITY* HMI	Version 4.01 or greater
VersaMax Nano & Micro	1.0 or greater

* **Notes**: 1. Any products not listed have not been tested, and compatibility is not known.

2. SNP-X is not supported by VMSE.

Modbus TCP/RTU Protocol

Product*	Version
VersaMax Nano & Micro	1.0 or greater
VersaMax modular	1.0 or greater
Series 90 Micro	3.10 or greater
Series 90-30	8.2 or greater
Series 90-20	**Not Supported**
Series 90-70	All versions with RTU

* **Notes**: 1. Any products not listed have not been tested, and compatibility is not known.

2. SNP-X is not supported by VMSE.

Number of Connections Supported

- Up to eight Modbus TCP/IP server channels

- Up to four SRTP server channels

- One connection for Tunneling protocol

Operational Notes

Firmware version 3.4 is compatible for HW versions IC200SET001-Fx and later.

Versions "BC" and later of the VersaMax Serial to Ethernet Adaptor use different firmware files than Version "AA". Make sure the correct files are used for the version VMSE that is having firmware loaded.

Serial SNP Master to Ethernet SRTP Not Supported

A serial SNP master connected to a VMSE will only work with another VMSE that connects serial to SNP slave(s). The operation of a serial SNP master connected to a VMSE to allow communication to Ethernet ports on PLCs is not supported

Serial SNP Master to Serial SNP Slave Using Two VMSE Devices

When initiating communications from a serial SNP master through two VMSE units to a serial SNP slave, any SRTP communications from the VMSE on the serial SNP Slave will halt. This is due to the VMSE switching to a single connection mode to support SNP-to-SNP communications.

Firmware File Lists

The number in each file denotes revision. Newer revisions if available will be posted on the Support web site: https://emerson-mas.my.site.com/communities/en_US/Article/IC200SET001-Landing-Page.

IC200SET001-FD, IC200SET001-FE, and Later Hardware Versions

Functionality	File for Network Download	Destination (password)
SNP/SRTP	snpd_3403.rom	G6
PassThru	AQGD61104B1.rom	G6
Modbus	MBGD3403B1.rom	G6

IC200SET001-FD and later hardware versions

Functionality	File for Network Download	Destination (password)
SNP/SRTP	snpd_3402B2.rom	G6
PassThru	AQGD61104B1.rom	G6
Modbus	MBGD3403B1.rom	G6

IC200SET001-BC and later hardware versions

Functionality	File for Serial Download	File for Network Download	Destination (password)
SNP/SRTP	SNPD0161.HEX	SNPD0161.ROM	G3
PassThru	AQGD05801.HEX	AQGD05801.ROM	G3
Modbus	MBGD0220.HEX	MBGD0220.ROM	G3

IC200SET001-BB

Functionality	File for Serial Download	File for Network Download	Destination (password)
SNP/SRTP	SNPD0151.HEX	SNPD0151.ROM	G3
PassThru	AQGD510.Hex	AQGD510.ROM	G3
Modbus	MBGD0200.Hex	MBGD020.Rom	G3

Modbus functionality only for module revision -BB or later

Functionality	File for Serial Download	File for Network Download	Destination (password)
Modbus	--	MBGD2600B1.ROM	G3

IC200SET001-AA

Functionality	File for Serial Download	File for Network Download	Destination (password)
SNP/SRTP	SNP100.HEX	SNP100.ROM	G1
PassThru	Cbx410.Hex	Cbx410.ROM	3Q
Modbus	Mod12.Hex	Mod12.Rom	4D

Release History

Version	Date	Comments
IC200SET001-JE	June 2023	Product labels have been updated to show compliance with new certifications. For updated certifications, please refer to https://emerson-mas.my.site.com/communities/en_US/Article/Certifications-and-Agency-Approvals-Landing-Page.
IC200SET001-HE	Nov 2019	Following Emerson's acquisition of this product, changes have been made to apply appropriate branding and registration of the product with required certification agencies. No changes to material, process, form, fit or functionality.
IC200SET001-FE	Apr 2019	Firmware version 3.4: Resolves connectivity issue with SRTP Ethernet to Slave SNP over RS485 communication.
IC200SET001-FD	Nov 2016	Firmware version 3.4. Security settings: • Added security settings to enable/disable various ports as per the requirements of application. • Added feature for enable/disable password for accessing telnet. • Added support for enabling/disabling TFTP download and configuring port 77FEh.
IC200SET001-EC	Dec 2010	Firmware version 2.01: resolves SRTP application connection to VMSE issue
IC200SET001-DC	Aug 2010	Agency information on Label update. No change in functions, performance or compatibility
IC200SET001-CC	Aug 2006	N/A
IC200SET001-BB	Jul 2003	The hardware change due to obsolescence of a part. The firmware was changed to add some features to the product.
IC200SET001-AA	Jun 2000	Initial Release

General Contact Information

Home link: http://www.emerson.com/industrial-automation-controls

Knowledge Base: https://www.emerson.com/industrial-automation-controls/support

Technical Support

Americas
Phone: 1-888-565-4155
                1-434-214-8532 (If toll free option is unavailable)

                Customer Care (Quotes/Orders/Returns):   customercare.mas@emerson.com
                Technical Support: support.mas@emerson.com

Europe
Phone: +800-4444-8001
                +420-225-379-328 (If toll free option is unavailable)

                Customer Care (Quotes/Orders/Returns):   customercare.emea.mas@emerson.com
                Technical Support: support.mas.emea@emerson.com

Asia
Phone: +86-400-842-8599
                +65-6955-9413 (All other Countries)

                Customer Care (Quotes/Orders/Returns):   customercare.cn.mas@emerson.com
                Technical Support: support.mas.apac@emerson.com

Any escalation request should be sent to: mas.sfdcescalation@emerson.com

Note: If the product is purchased through an Authorized Channel Partner, please contact the seller directly for any support.

Emerson reserves the right to modify or improve the designs or specifications of the products mentioned in this manual at any time without notice. Emerson does not assume responsibility for the selection, use or maintenance of any product. Responsibility for proper selection, use and maintenance of any Emerson product remains solely with the purchaser.

EMERSON