VersaMax™ SE - Ethernet Bridge

Data Sheet

GE Fanuc Automation

The new VersaMax SE is a versatile, cost-effective bridge from the serial port on a device to an Ethernet network. The VersaMax SE provides the VersaMax Nano and VersaMax Micro PLC easy access to Ethernet for exchanging information, transferring programs, monitoring and controlling.

Now it is possible to connect a wide variety of serial devices, such as PLCs, VFDs, bar code readers, and scales to Ethernet LAN. Thus eliminating the complexity of serial connectivity and protocol mismatches. Serial devices that support Modbus RTU Slave or custom protocols can be easily connected to the VersaMax SE as a bridge to Ethernet LAN. Custom protocols can be created using the software tools provided.

The VersaMax SE is compact, measuring just 3.5 in. (90mm) high x 2.25 in. (60mm) deep x 1.37 in. (36mm) wide. DIN rail mounting provides fast, easy installation and is powered by 9 –24VDC.

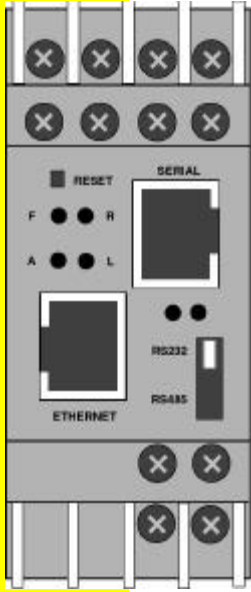*VersaMax SE - Bridging the gap between a VersaMax Nano and an Ethernet LAN*

VersaMax SE Product Features:

- Serial Port connection to controller:

  - One RS-232 (RJ45 or screw terminals) or RS-422/RS-485 (screw terminals) connection.
  - Supports SNP, RTU Slave and ASCII serial protocols.
  - RS-422/RS-485 (up to 32 devices multi-dropped. SNP devices not supported)

- 10BASE-T connection to Ethernet LAN:

  - One RJ45 connection.
  - 10Mbps communication speed.
  - Supports GE Fanuc SRTP, EGD (Ethernet Global Data (Future), Modbus Ethernet, UDP, TCP and Telnet.

- Rugged construction for industrial applications.

- Compatible with GE Fanuc VersaMax Nano, Micro, VersaMax modular, and Series 90-30 PLCs using the SNP protocol.

- Diagnostic LEDs show:

  - Ready or Connection to host established
  - Network traffic activity
  - Link – good Ethernet link
  - Serial transmit and receive activity
  - Fault or Configuration error

- Reset switch to reset power and initialize

- IP address is stored in Flash Memory

VersaMax SE Application Benefits:

- The VersaMax SE is preloaded with the GE Fanuc SNP and SRTP protocols. Data from the plant floor can be accessed by an HMI, such as CIMPLICITY® HMI and other high level devices without costly customization.

- Programming and debugging of GE Fanuc PLCs can easily be done using the VersaPro™ PLC programming software over Ethernet. This reduces downtime and increases efficiency.

- Software tools are provided that allow protocol customization of the VersaMax SE for serial communication to ASCII devices such as bar code readers, scales, robots, variable frequency drives, solid state starters and other controllers over an Ethernet network.

- The industrial design of the VersaMax SE enables it to work almost anywhere on the plant floor.

- VersaMax SE can be set up completely over Ethernet. No need to use serial cables to a PC for configuration.

- Modbus Ethernet connectivity can be achieved by configuring the GE Fanuc PLC in the Modbus RTU mode thus enabling data transfers between the Ethernet LAN and the PLC's.

- Network costs can be greatly reduced by using off-the-shelf hardware and tools.

Specifications & Ordering Information

Processor and Memory	
Processor	V40, 10MHz clock
Flash Memory	128K (256K fourth quarter 2000)
RAM	32K
Parameter Storage	256 byte EEPROM
Flash System Software	Downloadable from a TCP/IP host (TFTP download) or serial port
Tools	
IP Address	The VersaMax SE is shipped with a default IP address of 0.0.0.0 which automatically enables the DHCP within the VersaMax SE
Reset Button	Reset button on the front enables user to reset power and re-initialize unit.
Status LED's	
Ethernet Status	
"F" LED	Red on steady - configuration error Red light flashing - configuration mode/ during reset/ or during power cycle Red light off – normal operation
"A" LED	Yellow Flashing during normal operation. Unit seeing transmission packets and broad cast traffic
"R" LED	Green on steady – connection to network host established
"L" LED	Green on steady – link is good to Ethernet
Serial Status	
Transmit LED	Flashing during normal transmissions
Receiving LED	Flashing during normal receptions
Communications	
Ethernet	
Network Interface	Integrated 10BaseT port (RJ45 connector)
Communications Speeds	10Mbps
Compatibility	Ethernet version 2/IEEE 802.3
Protocols Supported	- SRTP (Default, GE Fanuc) - Modbus Ethernet - UDP - TCP - EGD (Future) - Telnet
Serial	
Serial interface (Only one active)	RJ45 connector – RS-232 Screw terminal – RS-232 or RS-422/485 (Up to 32 drops except SNP)
Communications Speeds	300 to 38.4 Kbps
Serial Selector Switch	Selectable setting for either RS-232 or RS-422/RS-485
Modem Control	RTS and CTS
Serial Line Formats	- Characters: 7 or 8 data bits - Stop bits: 1 or 2 - Parity: odd, even or none
Flow Control	XON/XOFF hardware flow control, and None
Protocols Supported	- SNP/SNPX (Default) - Modbus RTU - ASCII
DC Power Source	
Primary Power Range	9 to 30VDC @ 3 watts power consumption
Dimensions	
Dimensions	3.5 in. (90mm) High x 2.25 in. (60mm) deep x 1.37 in. (36mm) wide
Mounting	DIN Rail (DIN50 022 rail)
Environnemental	**Conditions**
Operating Temperature	0 to +60 Degrees C
Humidity	20% to 90% non-condensing
Agency Approvals	UL, C-UL, FCC, TUV and CE (FM pending)

Compatibility Matrix for GE Fanuc PLCs

Model	Protocol	Firmware Version
Series 90 Micro	RTU Slave	3.10 or greater
VersaMax Nano and Micro	SNP and RTU Slave	1.0 or greater
VersaMax modular	SNP and RTU Slave	1.0 or greater
Series 90-20	Not Supported at this time	
Series 90-30	SNP and RTU Slave	8.2 or greater
Series 90-70	RTU Slave	7.21
Series One, Three, Five and Six	RTU Slave	
Logicmaster Ethernet	SNP	Ver. 9.02 or greater
VersaPro	SNP	Ver. 1.1 or greater
Control	SNP	Ver. 2.3 or greater
CIMPLICITY HMI	SNP or RTU Slave	Ver. 4.01 or Greater

Above have been tested as of 7/18/00

Note: Release 1.0 supports SRTP to SNP, Modbus Ethernet to Modbus Slave or custom protocols only.

Ordering Information

Part Number	Description
IC200SET001	VersaMax SE with IC200CBL504 (4.0 inch RJ45 to RJ45 cable to connect the VersaMax Micro or Nano to VersaMax SE), Manual (GFK-1852) and CD (Configuration software)
IC200TBX210	Ethernet Starter Kit - VersaMax SE (IC200SET001) and VersaMax Nano (IC200NDR001) with VersaPro (IC640VPS002)
IC200TBX214	Ethernet Starter Kit - VersaMax SE (IC200SET001) and VersaMax Micro (IC200UDR001) with VersaPro (IC640VPS002)
IC200TBX223	Ethernet Starter Kit - VersaMax SE (IC200SET001) and VersaMax Micro (IC200UAL006) with VersaPro (IC640VPS002)
IC200TBX228	Ethernet Starter Kit - VersaMax SE (IC200SET001) and VersaMax Micro (IC200UDR005) with VersaPro (IC640VPS002)

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