

MANUFACTURER DOCUMENT PACKAGE

Manufacturer's Manual

Reference package for procurement and maintenance review

GE VERSAMAX

IC200ERM002H

ISOLATED EXPANSION RECEIVER MODULE

Used with the applicable VersaMax expansion modules configuration.

REFERENCE PACKAGE

OFFICIAL DOCUMENT

Selected official manufacturer pages follow this cover.

Source: GE official manufacturer documentation



Expansion Modules

Expansion Modules can be used to extend a VersaMax PLC or I/O station to include up to seven additional groups of up to eight modules each, providing the architectural flexibility to accommodate larger applications.

	IC200ERM001	IC200ERM002	IC200ETM001
Product Name	Expansion Receiver Module, Isolated	Expansion Receiver Module, Non-Isolated	Bus Transmitter Expansion Module
Lifecycle Status	Active	Active	Active
Expansion Type	Receiver	Receiver	Transmitter
Distance	Up to 2460 feet	Up to 50 feet	N/A
5 V Backplane Current Consumption (mA)	430	70	44
3.3 V Backplane Current Consumption (mA)	20	20	N/A
LED Indicators	PWR LED indicates 5 VDC power status; EXP RX LED indicates status of the expansion bus; SCAN indicates whether CPU/NIU is scanning I/O in expansion racks	PWR LED indicates 5 VDC power status; EXP RX LED indicates expansion bus communications status; SCAN indicates whether CPU/NIU is scanning I/O in expansion racks	PWR LED indicates 5 VDC power status; EXP TX LED indicates expansion bus communication status
Dimensions (W x H x D)	2.63 (66.8 mm) x 5.04 (128 mm) not including the height of power supply	2.63 (66.8 mm) x 5.04 (128 mm) not including the height of power supply	37 mm (1.45 in) x 5.04 (128 mm)

Remote I/O Units



A Remote I/O Unit connects VersaMax I/O modules to a host PLC or computer via a variety of networks. This makes it easy to include VersaMax I/O in the innovative PROFINET interface, as well as Genius, PROFIBUS-DP, DeviceNet, or other Ethernet installations. Together, the Remote I/O Unit and its modules form an I/O station capable of providing up to 256 points of I/O.

	IC200PNS001	IC200PNS002	IC200DBI001	IC200EBI001
Product Name	Remote I/O PROFINET Network Interface Unit (Cooper Media) with built-in switch	Bus Transmitter Expansion Module (Fiber Media) with built-in switch	Remote I/O DeviceNet Network Interface Unit (Slave)	Remote I/O Ethernet Network Interface Unit
Lifecycle Status	Active	Active	Active	Active
Protocol Supported	PROFINET Slave, Version 2.2 Class A IO-Device	PROFINET Slave, Version 2.2 Class A IO-Device	DeviceNet Slave	EGD and Modbus TCP Server
Distance	100 Meters max. drop length 10/100Mbaud	2 – 2,000 (Full-Duplex) 2 – 400 (Half-Duplex)	500Kbps 100m bus length and branches totaling < 39m 250Kbps 250m bus length and branches totaling < 78m 125Kbps 500m bus length and branches totaling < 156m	100 Meters max. drop length 10/100Mbaud
I/O Discrete Points	2880 bytes total 1440 bytes of input data 1440 bytes of output data	2880 bytes total 1440 bytes of input data 1440 bytes of output data	Includes both discrete and analog. Up to 128 bytes of inputs + 2-byte status word Up to 128 bytes of outputs + 2-byte control word.	1024 bytes maximum both discrete and analog. %I: 2048 points %Q: 2048 points
I/O Analog Words	2880 bytes total 1440 bytes of input data 1440 bytes of output data	2880 bytes total 1440 bytes of input data 1440 bytes of output data	Includes both discrete and analog. Up to 128 bytes of inputs + 2-byte status word Up to 128 bytes of outputs + 2-byte control word.	1024 bytes maximum both discrete and analog. %AI: 128 channels %AQ: 128 channels
I/O Data	N/A	N/A	Up to 128 bytes of inputs + 2-byte status word Up to 128 bytes of outputs + 2-byte control word.	256 Bytes of input, output, Analog input and Analog output
I/O Data Update Rate	Configurable: 1ms, 2ms, 4ms, 8ms, 16ms, 32ms, 64ms, 128ms, 256ms and 512ms	Configurable: 1ms, 2ms, 4ms, 8ms, 16ms, 32ms, 64ms, 128ms, 256ms and 512ms	N/A	N/A
Network Topology	Daisy-chain/line, star, or ring (redundant media) topology.	Daisy-chain/line, star, or ring (redundant media) topology.	Linear bus (trunkline/dropline); power and signal on the same network cable	Network dependent
Transmission Media	10/100BASE-T	Fiber 100BASE-FX	Shielded, dual twisted pair cable, terminated at both ends	Ethernet twisted pair
Connector	(2) RJ45 with built-in switch	(2) SC or SC-Duplex with built-in switch	5-pin open pluggable connector	RJ-45
User Diagnostic Data	32 input status bits and 32 output control bits	32 input status bits and 32 output control bits	2 bytes of status/control	4
Number of Modules	8 per NIU/station, not expandable	8 per NIU/station, not expandable	8 per NIU/station	8 per NIU/station
Redundancy	No	No	N/A	No
5V Backplane Current Consumption (mA)	3 Watts	5 Watts	160	175
3.3V Backplane Current Consumption (mA)	N/A	N/A	10	425
Dimensions (W x H x D)	134mm (5.28 in) x 132mm (5.2 in)	134mm (5.28 in) x 132mm (5.2 in)	133.4 mm (5.25 in) x 85.9 mm (3.38 in) not including the height of power supply	133.4 mm (5.25 in) x 85.9 mm (3.38 in) not including the height of power supply



Remote I/O Units

A Remote I/O Unit connects VersaMax I/O modules to a host PLC or computer via a variety of networks, which makes it easy to include VersaMax I/O in Genius, PROFIBUS-DP, DeviceNet, or Ethernet installations. Together, the Remote I/O Unit and its modules form an I/O station capable of providing up to 256 points of I/O.

	IC200GBI001	IC200PBI001
Product Name	Genius Network Interface Unit	Remote I/O PROFIBUS-DP Network Interface Unit (Slave)
Lifecycle Status	Active	Active
Protocol Supported	Genius	PROFIBUS DP
Distance	1372 to 2286 meters - 38.4 Kbaud supports a maximum of 16 devices. 1067 to 1372 meters 76.8 Kbaud supports a maximum of 32 devices. 609 to 1067 meters - 153.6 Kbaud extended supports a maximum of 32 devices. Less than 609 meters 153.6 Kbaud standard or 153.6 Kbaud extended supports a maximum of 32 devices.	9.6Kbits - 1,200 meters 19.2Kbits - 1,200 meters 93.75Kbits - 1,200 meters 187.5Kbits - 600 meters 500Kbits - 400 meters 1.5Mbits - 200 meters 3Mbits; 6Mbits; 12Mbits - 100 meters
I/O Discrete Points	1024 Inputs and 1024 Outputs	375 bytes maximum. Up to 244 bytes of inputs or 244 bytes of outputs
I/O Analog Words	64 Analog In and 64 Analog Out	375 bytes maximum. Up to 244 bytes of inputs or 244 bytes of outputs
I/O Data	128 bytes in and 128 out per bus scan	375 bytes maximum. Up to 244 bytes of inputs or 244 bytes of outputs.
I/O Data Update Rate	N/A	N/A
Network Topology	Bus	Linear bus, terminated at both ends. Stubs are possible.
Transmission Media	Shielded, twisted pair, fiber optic (external option)	Shielded, twisted pair cable
Connector	Removable Connector	9-pin D-sub connector
User Diagnostic Data	Yes	2 bytes of status/control, 5 bytes of standard PROFIBUS diagnostics
Number of Modules	8 per NIU/station	8 per NIU/station
Redundancy	Full media and hardware redundancy supported	N/A
5V Backplane Current Consumption (mA)	250	250
3.3V Backplane Current Consumption (mA)	10	10
Dimensions (W x H x D)	133.4 mm (5.25 in) x 85.9 mm (3.38 in) not including the height of power supply	133.4 mm (5.25 in) x 85.9 mm (3.38 in) not including the height of power supply