



PowerLogic EGX Ethernet gateways Communication devices

Fast, reliable and cost-effective Ethernet TCP/IP access to any device using serial Modbus protocol, even in the most demanding applications.



PowerLogic EGX Ethernet gateways

Larger systems may use a high-speed Ethernet backbone to collect information from many devices and share the data among several users. The Ethernet network can be dedicated to power monitoring or it can serve multiple functions. PowerLogic EGX Ethernet gateways provide reliable, cost-effective serial-line-to-Ethernet connectivity between intelligent meters, sensors and other remote instruments. PowerLogic EGX Ethernet gateways connect Modbus serial devices and systems to TCP/IP networks without modifying the existing infrastructure, perfect for converting a legacy serial-based system to an Ethernet-based system.

Two models of Ethernet gateways are available – the PowerLogic EGX100 and the PowerLogic EGX400. The EGX100 is an entry-level communications device that permits multiple users to gather information from many devices. The EGX400 provides the same reliable connections and also functions as a server, allowing users to create and view information using a standard web browser. Both models also allow the user to configure Ethernet and serial communication parameters, add devices to a network, and troubleshoot through a web interface with detailed diagnostics.

PowerLogic Ethernet Gateways support 10BaseT and 100BaseTX. The EGX400 additionally supports 100BaseFX fiber optic connections.

Applications

From a single building to a multi-site application, the PowerLogic EGX series capitalizes on an existing network infrastructure to deliver status, energy and power quality information in industrial and commercial environments. Able to withstand harsh industrial environments, both the PowerLogic EGX100 and the PowerLogic EGX400 feature an extended operating temperature range that allows them to be applied directly in power distribution equipment.

Even in the most demanding applications, PowerLogic EGX Ethernet gateways are a critical component in any of these applications:

- Energy management – Access usage consumption from piped utilities and power equipment data from any brand of circuit monitors, circuit breaker trip units, programmable controllers, drives and protective relays.
- Tenant metering – Add devices across a TCP/IP network even if your building management system only has a Modbus serial interface
- Power distribution – Apply directly to power distribution equipment and monitor and control devices that do not have a native Ethernet communications port
- Building automation – Initiate a direct Ethernet connectivity solution to your existing LAN/WAN configuration and maximize the return on your investment
- Factory automation – Gain greater control over the overall health of your system with remote monitoring and increase system performance on alarms and data transfers

Features



PowerLogic EGX100

EGX100

- Provides ModbusTCP/IP fast Ethernet connectivity to serial RS485 devices
- Provides serial support for Modbus RTU, Modbus ASCII, Jbus and PowerLogic protocols
- Comes with one 10/100BaseTx Ethernet port
- Comes with one serial port configurable for RS485 (2/4 wire) or RS232 (RJ45)
- Receives control power through the Ethernet cable utilising Power-over-Ethernet (PoE) according to IEEE 802.3af
- Provides Hypertext Transfer Protocol (HTTP) for embedded web server
- Embedded web server provides customisable, password-protected access to user configuration and diagnostic views
- Provides ModbusTCP/IP filtering to specify whether each client device has read-only or full access to connected serial slave devices
- Allows serial master devices to connect to remote ModbusTCP/IP servers
- Provides Simple Network Management Protocol (SNMP) for monitoring of device network status according to MIB II
- Provides File Transport Protocol (FTP) for device upgrades and configuration file backups

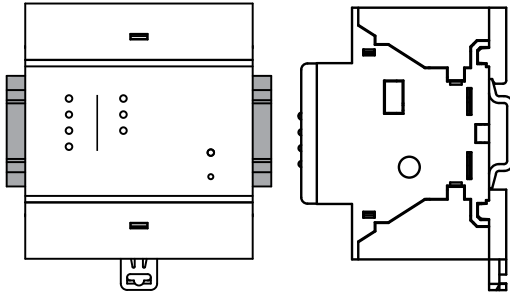


PowerLogic EGX400

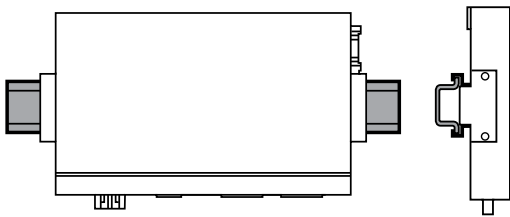
EGX400

- Provides ModbusTCP/IP fast Ethernet connectivity to serial RS485 devices
- Provides serial support for Modbus RTU, Jbus and PowerLogic protocols
- Comes with one 10/100BaseTx Ethernet port and one 100BaseFx fiber optic Ethernet port
- Comes with two serial ports: one for RS485 (2/4 wire) and another configurable for RS485 (2/4 wire) or RS232 (DB9)
- Provides Hypertext Transfer Protocol (HTTP) for embedded web server
- Embedded web server provides customisable, password-protected access to user configuration and diagnostic views
- Embedded web server web-enables any Modbus, Jbus, or PowerLogic protocol serial device
- Logs data from serial devices on 5, 15, 30, or 60 minute intervals
- Stores up to 152 days (60 minute interval) of recorded interval energy readings for up to 32 connected devices with 32 MB of internal memory
- Provides Simple Mail Transfer Protocol (SMTP) to E-mail stored device data logs on user defined intervals
- Embedded web server provides a graphical view of stored data logs
- Supports Simple Network Time Protocol (SNTP) for time and log interval accuracy
- Provides Simple Network Management Protocol (SNMP) for monitoring of device network status according to MIB II
- Provides File Transport Protocol (FTP) for device upgrades, retrieval of stored data logs, and custom file management
- Features WebPageGenerator, a free accompanying utility that allows you to easily create web pages and view data from serial devices

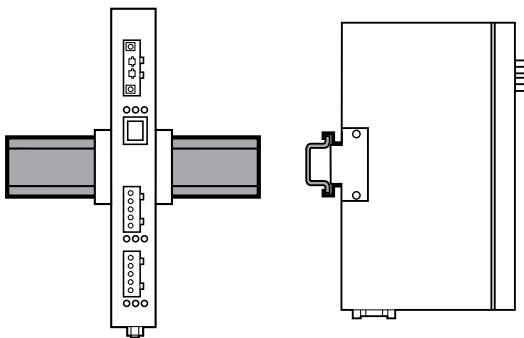
Installation options



DIN rail mounting EGX100



Side mounting on DIN rail EGX400



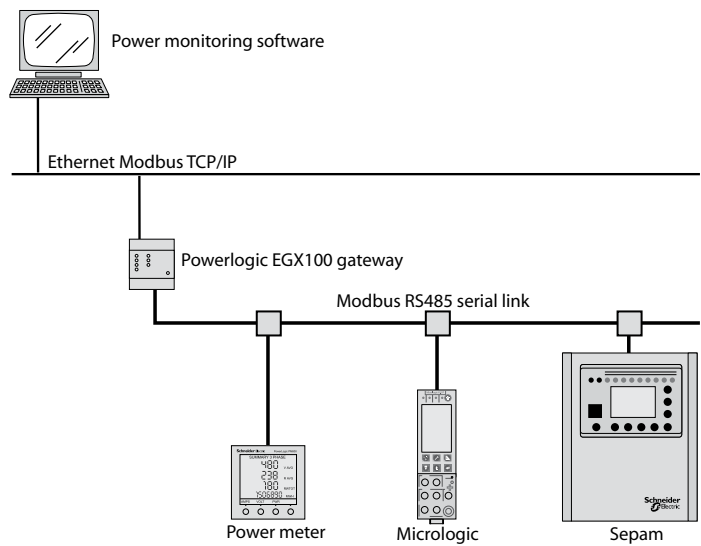
Front mounting on DIN rail EGX400

Supported devices

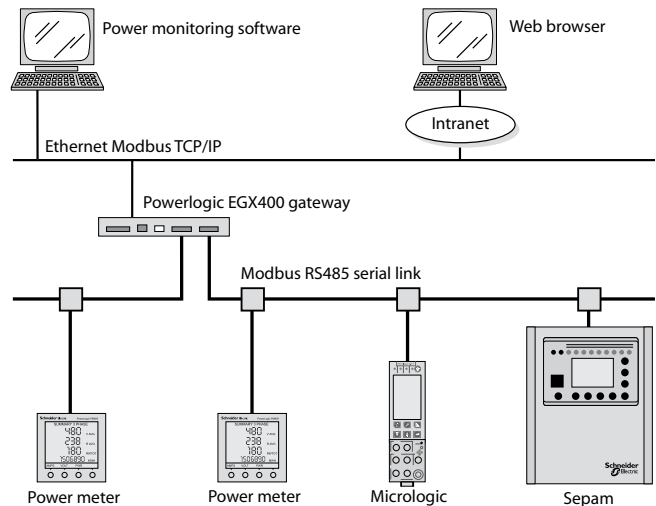
Both models in the PowerLogic EGX series support any Modbus or PowerLogic protocol slave device. The EGX100 supports a slave mode for connecting a serial-line based system to Ethernet. For example, a building management system with a Modbus serial interface can access devices across Ethernet via the EGX100 in slave mode. An EGX100 in slave mode can route to 16 remote Modbus TCP/IP interfaces supporting up to 128 remote serial-line devices.

Field upgradable firmware lets you add new features while reducing costly downtime.

EGX100 system architecture

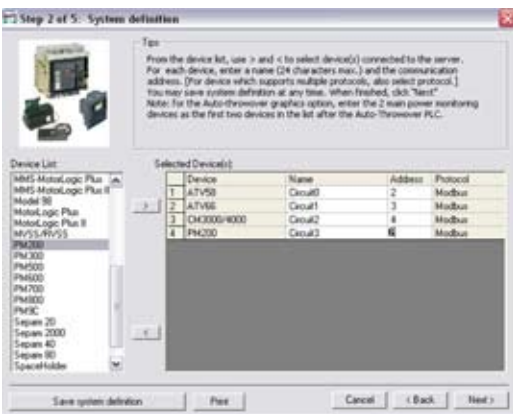


EGX400 system architecture





Step 1: Defining equipment in WebPage Generator



Step 2: Defining equipment in WebPage Generator



Step 3: Defining equipment in WebPage Generator

Web pages

The EGX400 comes with WebPageGenerator, a software tool that generates HTML pages. For detailed analysis, use WebPageGenerator to select any devices connected to the system and create and store corresponding HTML pages with detailed information. All web pages are stored directly on the EGX400.

WebPageGenerator can set up HTML pages for the following devices:

- Sepam Series 20, Sepam Series 40, Sepam Series 80 and Sepam 2000
- Masterpact equipped with Micrologic A, P and H control units
- PowerLogic CM3000, CM4000 and CM4250

Communications

Use your existing LAN infrastructure to reduce communications wiring and network management costs. Fast 10 or 100 Megabits per second Ethernet communications eliminates bottlenecks by moving power monitoring data at the same network speeds used in your LAN.

	EGX100	EGX400
Serial Ports		
Number of ports	1	2
Types of ports	RS232 or RS485 (2-wire or 4-wire), depending on setting	COM1: RS485 (2-wire or 4-wire) COM2: RS232 or RS485 (2-wire or 4-wire), depending on setting
Protocol	Modbus RTU/ASCII, JBus, PowerLogic (Sy/Max)	Modbus RTU, JBus, Powerlogic (Sy/Max)
Maximum baud rate	2400 to 38400 baud (configurable)	1200 to 38400 baud (configurable)
Maximum number of directly connected devices	32	32 per port (64 total)
Ethernet port		
Number of ports	1	2
Types of ports	One 10/100 base TX (802.3af)	One 10/100 base TX port One 100 base FX port (multimode fiber optic)
Protocol	HTTP, SNMP (MIB2), FTP, Modbus TCP/IP	HTTP, SNMP (MIB2), SMTP, SNTF, FTP, Modbus TCP/IP
Baud rate	10/100 Mb	10/100Mb
Web server		
Memory	None	32Mb

Features	EGX100	EGX400
Regulatory/standards compliance for electromagnetic interference		
Emissions (radiated and conducted)	EN 55022 / EN 55011/ FCC class A	EN 55022 / FCC class A
Immunity for industrial environments:	EN 61000-6-2	EN 61000-6-2
- electrostatic discharge	EN 61000-4-2	EN 61000-4-2
- radiated RF	EN 61000-4-3	EN 61000-4-3
- electrical fast transients	EN 61000-4-4	EN 61000-4-4
- surge	EN 61000-4-5	EN 61000-4-5
- conducted RF	EN 61000-4-6	EN 61000-4-6
- power frequency magnetic field	EN 61000-4-8	EN 61000-4-8
Regulatory/standards compliance for safety		
International (CB scheme)	IEC 60950	
USA	UL508/UL60950	UL508
Canada	cUL (complies with CSA C22.2, no. 60950)	cUL (complies with CSA C22.2, no. 14-M91)
Europe	EN 60950	ENG 1010
Australia/New Zealand	AS/NZS25 60950	
Installation options		
Mounting options	Din-rail mount	Din-rail mount Panel/Wall mount Flat surface or desktop mount
Physical characteristics		
Dimensions (H x W x D)	91 x 72 x 68 mm	25 x 190 x 115 mm
Power-over-Ethernet	Class 3	None
Power supply	24 V DC if not using power-over Ethernet	24 V DC 100-240 V AC/24 V DC adapter supplied
Maximum burden	4 Watts	8 Watts
Operating temperature	-25° C to +70° C	-30° C to +80° C
Humidity rating	5% to 95% relative humidity (without condensation) at +55° C	5% to 95% relative humidity (without condensation) at +40° C



"The 2007 award recognizes Schneider Electric for its technological advancements and wide product range in the field of power quality (PQ) and energy management solutions. In total, this is the fourth award that Schneider Electric and [recently acquired] Power Measurement have received from Frost & Sullivan in recognition of achievements in this arena." Prithvi Raj, Frost & Sullivan research analyst



Power Measurement and its ION products were recently acquired by Schneider Electric and integrated within our PowerLogic range of software and hardware, creating the world's largest line of power and energy management solutions.



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Please contact your local sales representative for ordering information.

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