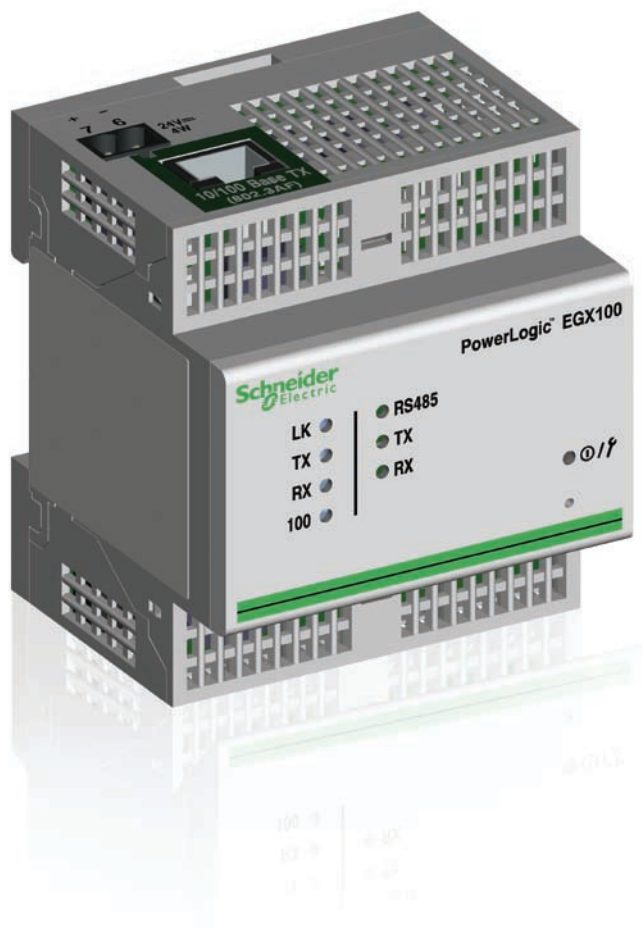# Gain energy insight and control with PowerLogic™

PowerLogic EGX100
Ethernet gateway

PowerLogic EGX100 Ethernet gateway

Large power monitoring systems often use a high-speed Ethernet backbone to collect data from many devices and share information amongst users. Whether your network is dedicated to power monitoring, or used for multiple functions, the PowerLogic EGX100 Ethernet gateway can help you reduce the cost and complexity of connecting, configuring and managing a network of intelligent meters, sensors and other remote instruments. It provides reliable connectivity between Modbus serial devices and TCP/IP networks, without modifying your existing infrastructure and is perfect for converting a legacy serial-based system to an Ethernet-based system.

The entry-level PowerLogic EGX100 enables users to configure Ethernet and serial communication parameters, add devices to a network and perform troubleshooting through a web interface with detailed diagnostics. The PowerLogic EGX100 supports 10BaseT and 100BaseTX.
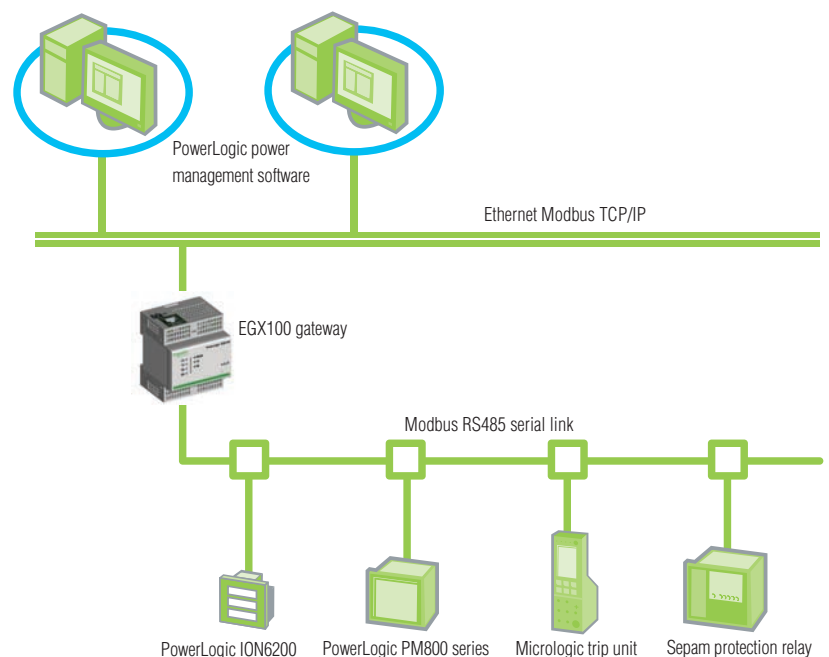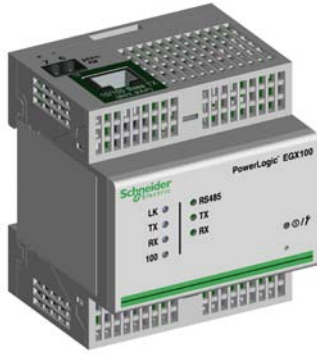
Applications

From a single facility to multiple sites, the PowerLogic EGX100 capitalises on your existing network infrastructure to deliver status, energy and power quality information in demanding industrial and commercial environments. An extended operating temperature range allows it to be installed directly in power distribution equipment.

PowerLogic EGX100 is suitable for a wide range of applications including:

☐ Energy efficiency and cost control – Access usage consumption from piped utilities and power equipment data from power meters, circuit breaker trip units, programmable controllers, drives and protective relays

☐ Sub-billing and cost allocation – 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 connection to your existing LAN/WAN configuration and maximise the return on your investment

☐ Factory automation – Obtain a full view of your power system with remote monitoring and increase system performance on alarms and data transfers

EGX100 system architecture

PowerLogic power management software

Ethernet Modbus TCP/IP

EGX100 gateway

Modbus RS485 serial link

PowerLogic ION6200   PowerLogic PM800 series   Micrologic trip unit   Sepam protection relay

PowerLogic EGX100

Features

□ Gives ModbusTCP/IP Ethernet connectivity to serial RS485 devices

□ Provides serial support for Modbus RTU, Modbus ASCII, Jbus and PowerLogic protocols

□ Is equipped with one 10/100BaseTx Ethernet port

□ Offers 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 an embedded web server

□ 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

Supported devices

The PowerLogic EGX100 supports 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.

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	
Serial Ports	
Number of ports	1
Types of ports	RS232 or RS485 (2-wire or 4-wire), depending on setting
Protocol	Modbus RTU/ASCII, JBus, PowerLogic (Sy/Max)
Maximum baud rate	2400 to 57600 baud (configurable)
Maximum number of directly connected devices	32
Ethernet Port	
Number of ports	1
Types of ports	One 10/100 base TX (802.3af)
Protocol	HTTP, SNMP (MIB2), FTP Modbus TCP/IP
Baud rate	10/100 Mb
Web server	
Memory	None

Features	EGX100
Regulatory/standards compliance for electromagnetic interference	
Emissions (radiated and conducted)	EN 55022 / EN 55011/ FCC class A
Immunity for industrial environments:	
- electrostatic discharge	EN 61000-6-2
- radiated RF	EN 61000-4-2
- electrical fast transients	EN 61000-4-3
- surge	EN 61000-4-4
- conducted RF	EN 61000-4-5
- power frequency	EN 61000-4-6
- magnetic field	EN 61000-4-8
Regulatory/standards compliance for safety	
International (CB scheme)	IEC 60950
USA	UL508/UL60950
Canada	cUL (complies with CSA C22.2, no. 60950
Europe	EN 60950
Australia/New Zealand	AS/NZS25 60950
Installation options	
Mounting options	Din-rail mount
Physical characteristics	
Dimensions (H x W x D)	91 x 72 x 68 mm (3.58" x 2.83" x 2.67")
Power-over-Ethernet	Class 3
Power supply	24 V DC if not using power-over Ethernet
Maximum burden	4 Watts
Operating temperature	-25° C to +70° C (-12° F to +158° F)
Humidity rating	5% to 95% relative humidity (without condensation) at +55° C (+131° F)

Please contact your local sales representative for ordering information.

Visit www.powerlogic.com for more information on other PowerLogic products, applications and system solutions.