Technical Data **TD152008EN**

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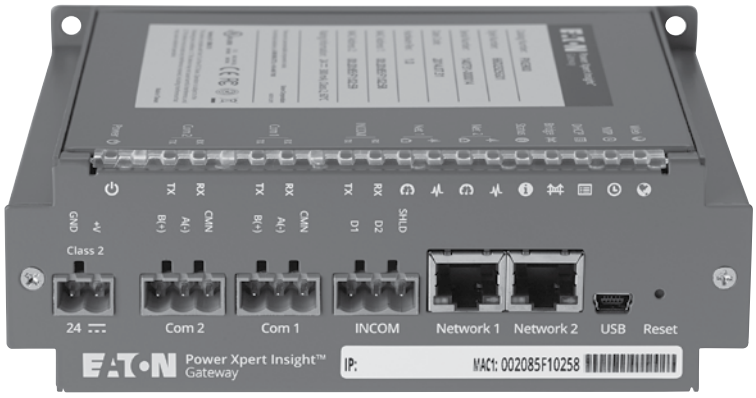
Supersedes October 2016

Power Xpert Gateway 900



Delivers real-time, Web-enabled monitoring of electrical distribution and control equipment

Product snapshot

The Power Xpert® Gateway 900 (PXG 900) has been designed to be installed in electrical assemblies or systems—low- and medium-voltage switchgear, switchboards, panelboards, transfer switches, and motor control centers to acquire and consolidate data available from components such as trip units, meters, relays, drives, and I/O.

Product overview

- Open communication architecture
  - Connects to both Eaton and third-party electrical equipment; communicates to INCOM™, Modbus® TCP, and Modbus RTU devices
  - Modbus TCP, BACnet/IP and SNMP v.1 / v.3 support facilitates integration with third-party monitoring solutions
  - Ethernet/Web-based support uses your existing network infrastructure, reducing costs
- Flexible and expandable solutions
  - Stand-alone or small systems benefit from comprehensive, on-board Web pages; no additional programming or software is necessary for virtually out-of-the-box, plug-and-play functionality
  - Larger systems, such as campus installations or power systems with remote locations can view multiple PXGs via Power Xpert Insight™ or a third-party monitoring system
  - Existing equipment can be connected to the PXG to reap the benefits of Power Xpert Architecture at minimal cost, without the need to upgrade
- Information at a glance
  - Private Network mode on the Net 2 port will allow for the ability to establish a private subnet to attach Modbus TCP communication devices
  - Using a standard Web browser, view the PXG's Web interfaces that include a Network tab, Alarms tab, individual device detail pop-outs, and One Line graphics tab
  - Comprehensive, well-organized device Web pages present measured parameters such as current, voltage, power, energy, frequency, power factor, and voltage THD, just to name a few
  - Combine with Power Xpert Insight for viewing multiple gateways and other power system equipment for more extensive energy monitoring and capacity analysis

Powering Business Worldwide

Monitoring power and energy in a networked world

Through standard on-board Web pages, Power Xpert Insight, or third-party software, Eaton's Power Xpert Gateway (PXG) 900 allows you to closely monitor the performance of your power and energy efficiency with easily accessed, real-time, Web-enabled data. Eaton's PXG 900 provides a central point to connect devices to an Ethernet network. The gateway may be used as a standalone device to view one system or location, or it can be easily integrated into a large, multi-location system.

The PXG is our configurable data acquisition solution for facility equipment like switchgear, switchboards, motor control centers, etc. Power and energy data from the downstream devices are time stamped and stored in non-volatile memory. This interval data can be stored or updated to a destination of the user's choice through CSV. Data can also be accessed through any Web browser directly on the PXG. Users can move data into Power Xpert Insight v. 3.2 or higher, BMS, BAS, building dashboards, custom software applications, or virtually any Web interface.

Features and benefits

Rugged, industrial design

- Designed specifically for industrial environments, the PXG has a compact design that only requires convection cooling
- Stringent EMI design requirements ensure that the PXG will function in the most difficult EMI situations to deliver high reliability
- Mounting options are provided for panel mounting or DIN rail, allowing for installation flexibility

Smart configuration and user interface

- As an out-of-the-box, plug-and-play device, there is no additional software required to configure and view downstream devices
- All configuration menus are straightforward and easy to follow
- Upon configuring the PXG and associated devices, the data will automatically appear in the Web UI when you point your browser to the IP address of the PXG

Three operational modes

The Power Xpert Gateway can operate in three modes, simultaneously if required, providing flexibility for varying protocols, devices, and systems. For further details of each operational mode, see user manual. For a graphical representation of each mode, see **Figure 1**.

1. INCOM Pass-Through mode (EMINT mode)
   INCOM Pass-Through mode allows data from INCOM serial devices to flow directly through the gateway to be viewed in PowerNet™ software for logging and consolidation with other connected devices.
   – Expansion of an existing PowerNet system with additional equipment can be easily achieved by adding a PXG 900 to the system to bring the INCOM communicating devices online in INCOM pass-through mode.

Note: INCOM serial communication can either be cached or EMINT/pass-through, not both at the same time.

2. Modbus RTU to Modbus TCP Pass-Through and Modbus TCP Pass-Through mode
   The Modbus RTU-Modbus TCP Pass-Through mode allows information from Modbus serial devices to pass directly through the gateway to be viewed by a (or multiple) Modbus TCP monitoring software, i.e., an existing Building Management System.
   – The PXG allows users to do simple protocol translation, with minimal configuration in the PXG for those applications where they need Modbus TCP to bring devices into their existing system.
   – The flexibility of the PXG for simple Modbus protocol translation in conjunction with other mode's makes the PXG more than a simple Modbus protocol translator.

3. Web browser or Cache mode
   Cache mode allows data from INCOM serial devices and Modbus RTU and TCP devices into the gateway, creating real-time viewing status through a Web browser as well as logging for historical reference and trending. Cached data from the connected devices can be shared with other client software similar to pass through.
   – The PXG in Cache mode serves as an acquisition tool and provides the ability for users to view their devices on the ports connected to the PXG through a Web browser. This allows users to bring power infrastructure equipment online to monitor operation and record power and energy usage.

Secure cyber communication

Controlling access to the PXG 900 is a vital component in any effort to secure it. Many regulatory agencies and standards organizations now recommend/require Role-Based Access Control (RBAC) password management and previous login notification as part of any access control effort. To support this, the PXG 900 has a robust set of tools you can use to create the set of users and role-based permissions with password management you need to comply with security policies in effect at your site.

- **Password protection and management**
  Role-Based Access Control (RBAC) as part of any access control effort. To support this, the PXG 900 has a robust set of tools you can use to create the set of users and role-based permissions as well as a comprehensive set of password management features you need to comply with security policies in effect at your site
- **Secure Web browsing**
  SSL Encryption option ensures that information and passwords exchanged with the PXG's Web server cannot be intercepted on the LAN
- **Access control / trusted host list**
  Provides an additional method of security by limiting access to the communication ports by authorized trusted hosts' IP addresses

Time synchronization

The PXG supports synchronization of clocks on INCOM devices that support the set time and date command. Additionally, the PXG can be combined with a network time server for accurate time stamping via NTP.

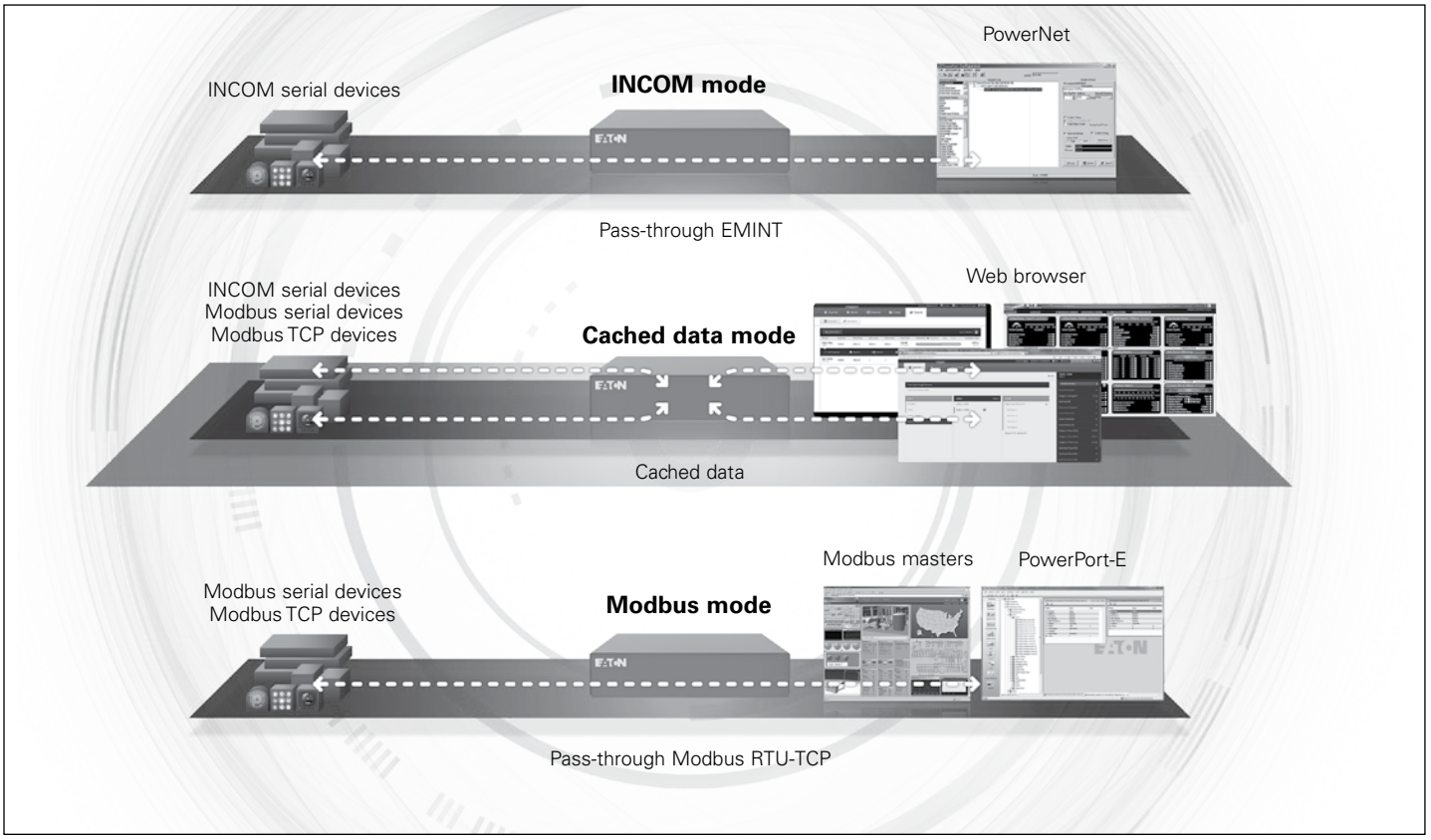


Figure 1. Three operational modes

Real-time trending and viewing

The PXG 900 allows the user to enable pre-selected parameters to be trended for each supported device. This feature is user-selectable on the device configuration page. A trend symbol is displayed next to the trended parameter on the device page. Selecting the trend symbol will generate a real-time graph via the Web UI for that parameter and can be viewed for the past 24 hours, 7 days, 30 days or all past history.

Trend and alarm logging and analysis

The PXG 900 stores both historical data and alarms that can be downloaded into a comma separated value (CSV) file format. Using Excel® will allow you to perform analysis to discover potential system issues or proactively perform maintenance.

Waveforms capture and downloads

The PXG 900 supports waveform acquisition for INCOM supported devices capable of generating waveforms. This feature is user-selectable on the device configuration page. The waveform files are converted and stored as a COMTRADE file format in the PXG 900. The files can then be downloaded and viewed using a standard COMTRADE waveform viewer of your choice.

Email notifications related to captured waveforms is now available providing a link back to the waveform to be downloaded.

Table 1. Summary of PXG 900 features

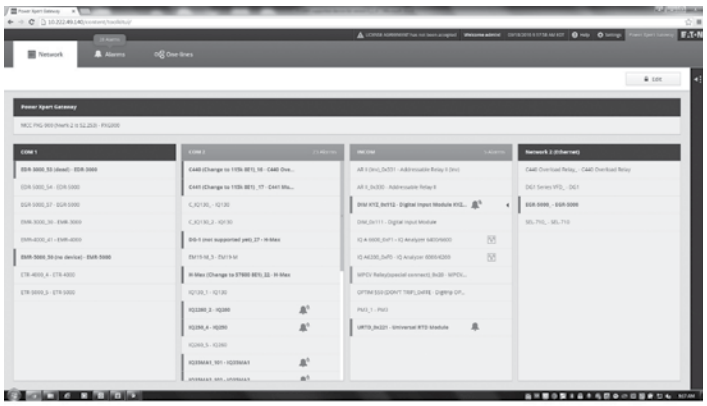
Features	PXG 900
Protocols supported on downstream devices: INCOM, Modbus TCP, and Modbus RTU	Yes
Number of downstream communication ports	3
Number of downstream protocols supported simultaneously	2
USB port for configuration	Yes
Two RJ-45 Ethernet ports—10/100/1000BASE-T	Yes
Modbus TCP/IP protocol supported	Yes
BACnet/IP protocol supported	Yes
SNMP v.1 / v.3	Yes
INCOM date and time settings supported	Yes
Network tab, alarm tab, one line tab, device and alarm detail sidebar, and pop-out	Yes
Device waveform access and storage—COMTRADE file format	Yes
Set user-defined alarms	Yes
Real-time trending	Yes
Trend graphs displayed in Web browser	Yes
Alarm notification via the Web interface	Yes
Alarm logs—csv file format, downloadable to Excel	Yes
Trend logs—csv file format, downloadable to Excel	Yes
Email notification on alarms and daily updates if requested	Yes
Secure Ethernet communication—SSL encryption	Yes
Secure communication ports via access control/trusted host list	Yes
IPv4 support	Yes
Save and restore configuration settings	Yes
Audit logs	Yes

Note: The Eaton Power Xpert Gateway 900 includes the Power Xpert Gateway Module, USB A to Mini-B USB cable, and DIN rail adapter with mounting screws.

Power Xpert Insight Gateway user interface

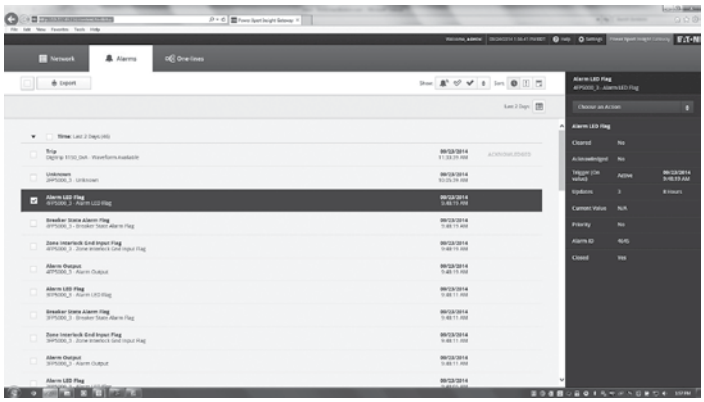
Network tab

Default log-in screen that provides general configuration of the gateway, serial communication ports, and devices. The Network tab provides a simple view of the serial devices and their current status of operation by color changes and symbols. Additional detail and functionality is accessible from the Network tab sidebar for all communicating devices.



Alarms tab

Provides a single screen that provides details on all alarms associated with the device communicating in cache mode through the gateway. Alarms can be reviewed and acknowledged, as well as sorted and filtered based on status. Additional information regarding the alarm can be found by selecting the alarm and specifics on the alarm will be displayed in the sidebar.



One-lines tab

Allows users the ability to create a graphical representation of a one-line diagram based on the user's desired representation. Through the device tree, a user can select devices and group them in locations and generate a multiple level one-line representing the devices connected to the gateway. The one-line graphic will provide device status graphically, and additional detail can be found on the device and its supported channels in the sidebar of a selected device on the one-line or device tree.

Device details and trend viewer

Selected devices on the Network tab and One-lines tab provide a device sidebar. From that sidebar, a user can get additional detail about the device and its monitored channels, by selecting the choose an action menu on the sidebar. This will allow users to see the device details pop-out as well as gain access to historical trend data and other available information regarding the selected device.

User-defined alarms

The PXG 900 supports the setting of user-defined alarms on an individual device and channel basis. This feature is set for enabled channels via the Setting button in the header under the alarms setting tab. An example of a user-defined alarm would be a low and high limit on the phase A current channel for a device. The alarm limit values and the alarm names can be chosen by the user.

Email notification

A user has the ability to customize and direct email to notifications to up to 10 users in their organization. Select from alarm notifications, waveform notifications, trend log, alarm log, and daily emails. This function provides yet one more way to effectively and proactively manage your monitored system.

Save and restore configuration settings

The PXG provides the ability to save the PXG device and network configuration settings to an XML file format. It can be used to restore settings to any PXG to facilitate configuration of similar systems.

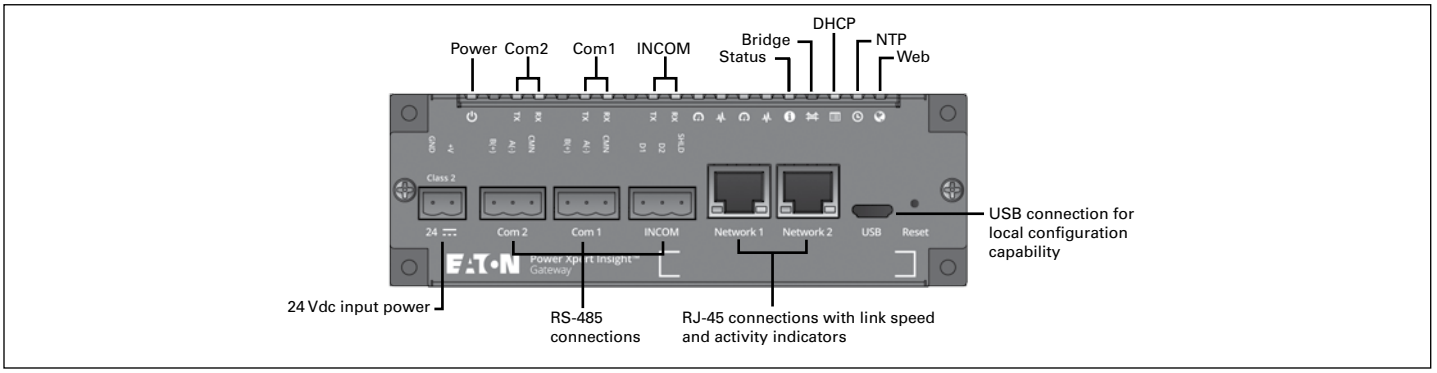


Figure 2. Power Xpert Gateway 900

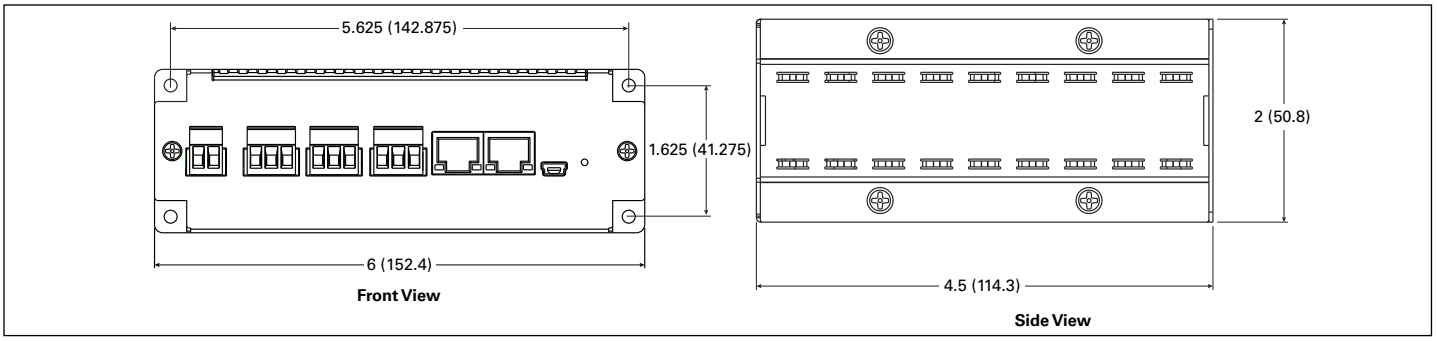


Figure 3. Power Xpert Gateway 900 with standard panel mounting

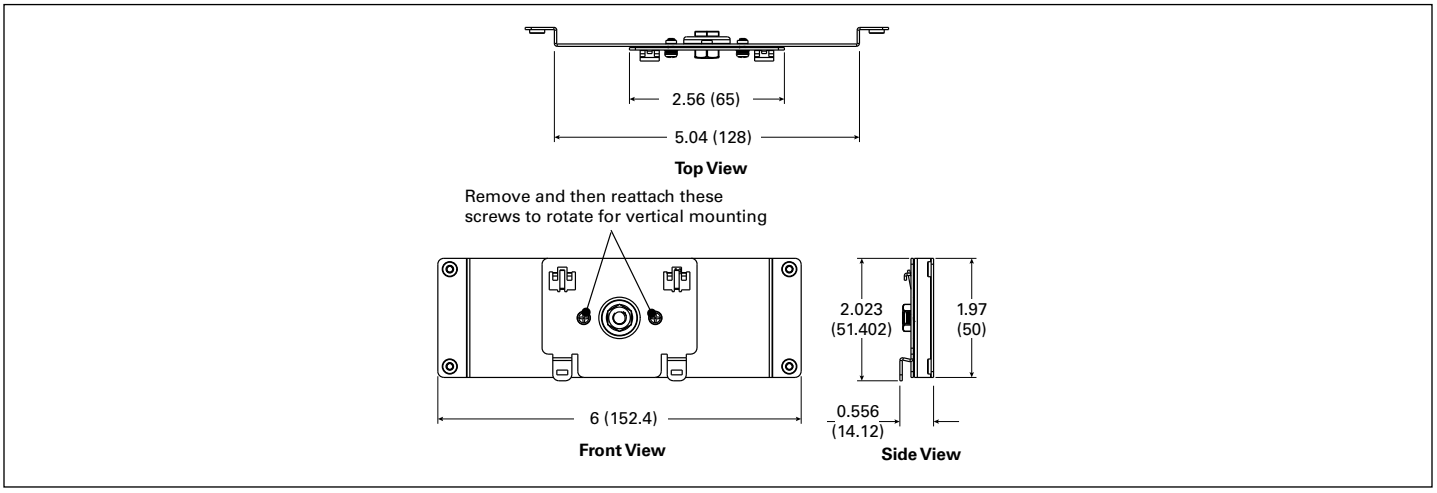
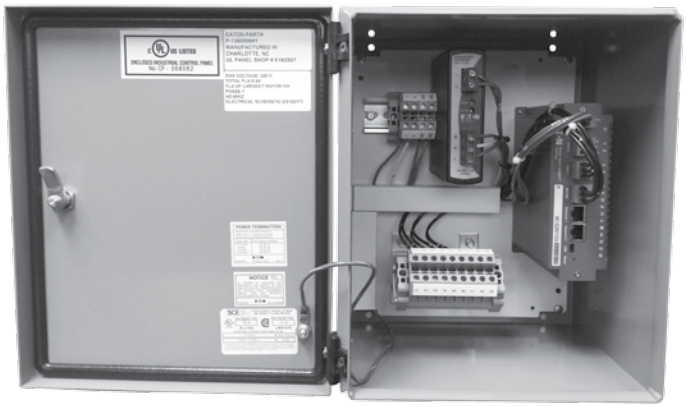


Figure 4. Power Xpert Gateway 900 with DIN rail mounting (brackets included)

Power Xpert Gateway enclosed version



Enclosed version

- Cost-effective solution to add communications to new or existing equipment that has no physical space to install the PXG in the equipment structure
- NEMA® 12 enclosure rating
- Prewired with a PSG60N24RP power supply and terminal blocks for ease of wiring of incoming power and connected devices

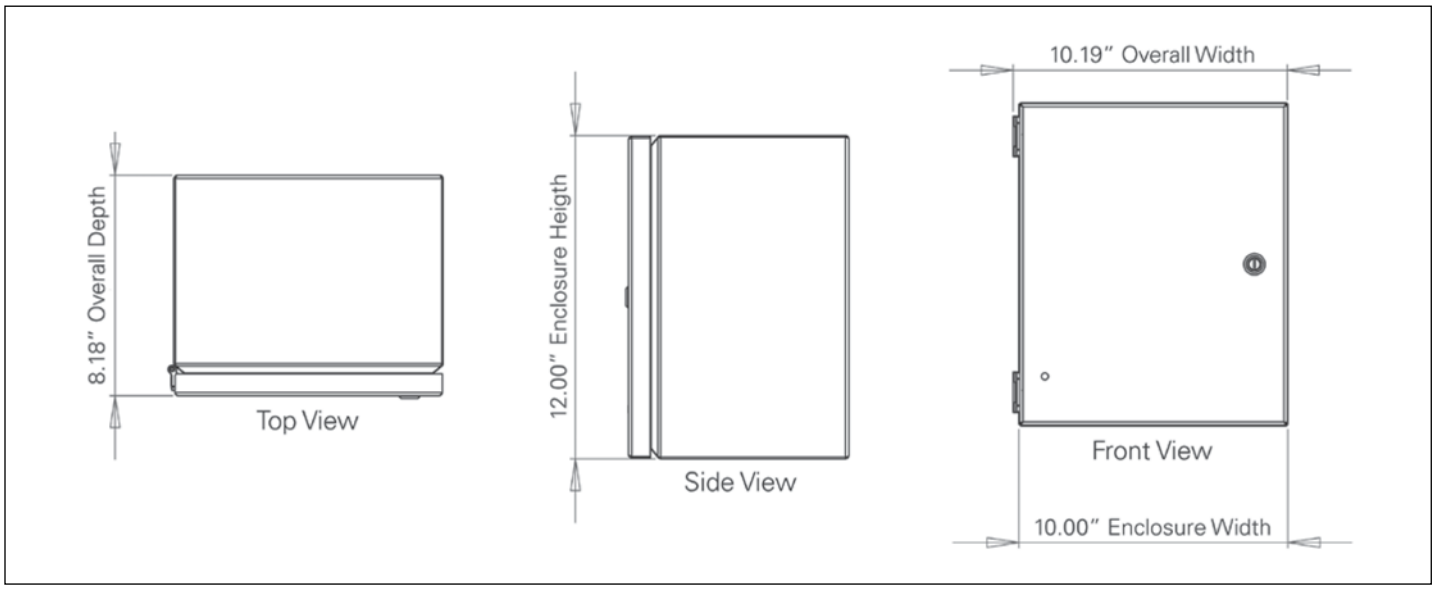


Figure 5. Power Xpert Gateway enclosure dimensions

PXG daisy-chain application in bridge mode

The PXG allows for units to be connected together through two RJ-45 10/100/1000 connectors on the front of the PXG series of products. Default is bridged mode for the daisy-chain application. This arrangement is a pass-through of Ethernet communications, allowing a single network drop to connect up to five Ethernet communicating devices. The maximum length of a copper cable run should not exceed 295 ft (90 m) total.

Note: In this configuration, if any of the PXG units go offline or lose power, the communication to the downstream Ethernet devices will lose connection to the LAN.

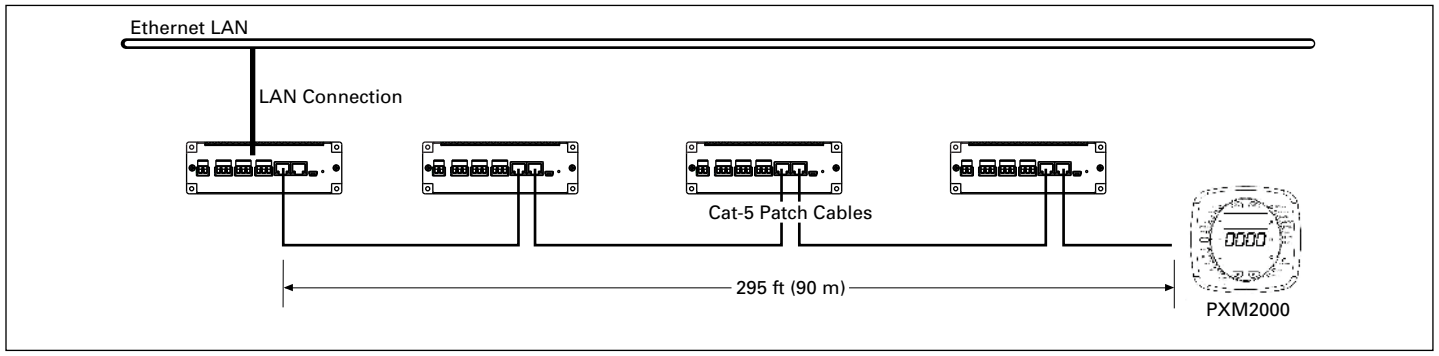


Figure 6. PXG daisy-chain application

Data acquisition and integration table for supported devices

Table 2. Supported devices

Protocol		HTTP/ HTTPS (Web browser)	Power Xpert Insight	Modbus TCP (BMS and SCADA)	Pass-through INCOM (PowerNet)	SMTP (Email client)	File export (CSV file format)	File export (COMTRADE file format)	BACnet/IP	SNMP v.1/v3
Family	**Model**									
INCOM										
Accessory	AEM II	■	■	■	■	■	■		■	■
Accessory	BIM II	■	■	■	■	■	■		■	■
I/O	AR II	■	■	■	■	■	■		■	■
I/O	AR II inverted	■	■	■	■	■	■		■	■
I/O	DIM	■	■	■	■	■	■		■	■
I/O	DIM-KYZ	■	■	■ ①	■	■	■		■	■
Meter	IQ 220 / IQ 320	■	■	■	■	■	■		■	■
Meter	IQ 230 / IQ 330	■	■	■	■	■	■		■	■
Meter	IQ Analyzer (6000/6200)	■	■	■	■	■	■		■	■
Meter	IQ Analyzer (6400/6600)	■	■	■	■	■	■	■	■	■
Meter	IQ Data Plus II	■	■	■	■	■	■		■	■
Meter	IQ DP-4000	■	■	■	■	■	■		■	■
Meter	IQ Energy Sentinel	■	■	■	■	■	■		■	■
Meter	IQ Power Sentinel	■	■	■	■	■	■		■	■
Meter	IQMESII	■	■	■ ①	■	■	■		■	■
Meter	PM3	■	■	■	■	■	■		■	■
Protection	Digitrip 520MC	■	■	■	■	■	■		■	■
Protection	Digitrip 810	■	■	■	■	■	■		■	■
Protection	Digitrip 910	■	■	■	■	■	■		■	■
Protection	Digitrip 810 (AEM II CV6)	■	■	■	■	■	■		■	■
Protection	Digitrip 910 (AEM II CV6)	■	■	■	■	■	■		■	■
Protection	Digitrip T800	■	■	■	■	■	■		■	■
Protection	Digitrip 1150/DT1150V	■	■	■	■	■	■	■	■	■
Protection	Digitrip 3000	■	■	■	■	■	■		■	■
Protection	Digitrip 3200	■	■	■	■	■	■		■	■
Protection	Digitrip MV	■	■	■	■	■	■		■	■
Protection	Digitrip OPTIM 550	■	■	■	■	■	■		■	■
Protection	Digitrip OPTIM 750	■	■	■	■	■	■		■	■
Protection	Digitrip OPTIM 1050	■	■	■	■	■	■		■	■
Protection	FP-4000	■	■	■	■	■	■	■	■	■
Protection	FP-5000	■	■	■	■	■	■	■	■	■
Protection	FP-6000	■	■	■	■	■	■	■	■	■
Protection	IQ 500	■	■	■	■	■	■		■	■
Protection	MP-3000	■	■	■	■	■	■		■	■
Protection	MP-4000	■	■	■	■	■	■		■	■
Protection	MPCV Relay	■	■	■	■	■	■		■	■
Protection	NRX520I	■	■	■	■	■	■		■	■
Protection	NRX1150I	■	■	■	■	■	■		■	■
Protection	Universal RTD	■	■	■	■	■	■		■	■
Transfer switch	ATC-400	■	■	■	■	■	■		■	■
Transfer switch	ATC-600	■	■	■	■	■	■		■	■
Transfer switch	ATC-800	■	■	■	■	■	■		■	■

① Modbus TCP efficient register maps only.

Table 2. Supported devices (continued)

Protocol		HTTP/ HTTPS (Web browser)	Power Xpert Insight	Modbus TCP (BMS and SCADA)	Pass-through INCOM (PowerNet)	SMTP (Email client)	File export (CSV file format)	File export (COMTRADE file format)	BACnet/IP	SNMP v.1/v3
Family	**Model**									
Modbus RTU										
Drive	DG1	■	■	■		■	■		■	■
Drive	H-Max	■	■	■		■	■		■	■
Drive	M-Max	■	■	■		■	■		■	■
Drive	MVX9000	■	■	■		■	■		■	■
Drive	SPX9000	■	■	■		■	■		■	■
Drive	SVX9000	■	■	■		■	■		■	■
Meter	Ci20	■	■	■		■	■		■	■
Meter	E30/E31A042 1 phase BCM	■	■	■ ①		■	■		■	■
Meter	E30/E31A042 2 phase BCM	■	■	■ ①		■	■		■	■
Meter	E30/E31A042 3 phase BCM	■	■	■ ①		■	■		■	■
Meter	EM19_M	■	■	■		■	■		■	■
Meter	EM20 72D	■	■	■		■	■		■	■
Meter	EM21 72D	■	■	■		■	■		■	■
Meter	EM22 DIN	■	■	■		■	■		■	■
Meter	EM24 DIN	■	■	■		■	■		■	■
Meter	ION 7350	■	■	■		■	■		■	■
Meter	ION 7550	■	■	■		■	■		■	■
Meter	ION 7650	■	■	■		■	■		■	■
Meter	IQ 130	■	■	■		■	■		■	■
Meter	IQ 140	■	■	■		■	■		■	■
Meter	IQ 150	■	■	■		■	■		■	■
Meter	IQ 220M / 320M	■	■	■		■	■		■	■
Meter	IQ 230M / IQ 330M	■	■	■		■	■		■	■
Meter	IQ 250	■	■	■		■	■		■	■
Meter	IQ 260	■	■	■		■	■		■	■
Meter	IQ35MA1	■	■	■		■	■		■	■
Meter	IQ35MA2	■	■	■		■	■		■	■
Meter	Nexus 1200 Series	■	■	■		■	■		■	■
Meter	PM3_Modbus	■	■	■		■	■		■	■
Meter	PXM1000	■	■	■		■	■		■	■
Meter	PXBCM	■	■	■ ①		■	■		■	■
Meter	PXMP	■	■	■ ①		■	■		■	■
Meter	SQD CM3000 Series	■	■	■		■	■		■	■
Meter	SQD CM4000 Series	■	■	■		■	■		■	■
Meter	SQD PM700 Series	■	■	■		■	■		■	■
Meter	SQD PM800 Series	■	■	■		■	■		■	■
Power factor correction	AutoVAR300	■	■	■		■	■		■	■
Protection	ABB TPU 2000	■	■	■		■	■		■	■
Protection	C440	■	■	■		■	■		■	■
Protection	C441	■	■	■		■	■		■	■
Protection	C445	■	■	■		■	■		■	■
Protection	EDR-3000	■	■	■		■	■		■	■
Protection	EDR-5000	■	■	■		■	■		■	■
Protection	EGR-4000	■	■	■		■	■		■	■
Protection	EGR-5000	■	■	■		■	■		■	■
Protection	EMR-3000	■	■	■		■	■		■	■
Protection	EMR-4000	■	■	■		■	■		■	■
Protection	EMR-5000	■	■	■		■	■		■	■
Protection	ETR-4000	■	■	■		■	■		■	■
Protection	ETR-5000	■	■	■		■	■		■	■
Protection	PXR20/25 ②	■	■	■		■	■		■	■

① Modbus TCP efficient register maps only.

② For both Modbus serial native and MCAM connectivity.

Table 2. Supported devices (continued)

Protocol										
Family	**Model**	**HTTP/ HTTPS (Web browser)**	**Power Xpert Insight**	**Modbus TCP (BMS and SCADA)**	**Pass-through INCOM (PowerNet)**	**SMTP (Email client)**	**File export (CSV file format)**	**File export (COMTRADE file format)**	**BACnet/IP**	**SNMP v.1/v3**
Modbus RTU										
Protection	GE 369 Motor Relay	■	■	■		■	■		■	■
Protection	GE 469 Motor Relay	■	■	■		■	■		■	■
Protection	InsulGard	■	■	■		■	■		■	■
Protection	NRX520M	■	■	■		■	■		■	■
Protection	NRX1150M	■	■	■		■	■		■	■
Protection	Qualitrol 118	■	■	■		■	■		■	■
Protection	SEL551	■	■	■		■	■		■	■
Protection	SEL587Z	■	■	■		■	■		■	■
Protection	TC50	■	■	■		■	■		■	■
Protection	TC100	■	■	■		■	■		■	■
Protection	URC AC Pro II	■	■	■		■	■		■	■
Starter	S611	■	■	■		■	■		■	■
Starter	S811+	■	■	■		■	■		■	■
Transfer switch	ATC-300	■	■	■		■	■		■	■
Transfer switch	ATC-900	■	■	■		■	■		■	■
Modbus TCP										
Drive	DG1	■	■	■		■	■		■	■
I/O	ELC	■	■	■		■	■		■	■
Meter	Ci20	■	■	■		■	■		■	■
Meter	PXBCM	■	■	■		■	■		■	■
Meter	PXM2250	■	■	■		■	■		■	■
Meter	PXM2260	■	■	■		■	■		■	■
Meter	PXM2270	■	■	■		■	■		■	■
Meter	PXM2280	■	■	■		■	■		■	■
Meter	PXM2290	■	■	■		■	■		■	■
Meter	PXM4000	■ ①	■	■		■	■		■	■
Meter	PXM6000	■ ①	■	■		■	■		■	■
Meter	PXM8000	■ ①	■	■		■	■		■	■
Meter	SEL735	■ ②	■	■		■	■		■	■
Protection	EDR3000	■	■	■		■	■		■	■
Protection	EDR5000	■	■	■		■	■		■	■
Protection	EMR4000	■	■	■		■	■		■	■
Protection	EMR5000	■	■	■		■	■		■	■
Protection	C440	■	■	■		■	■		■	■
Protection	C441	■	■	■		■	■		■	■
Protection	C445	■	■	■		■	■		■	■
Protection	SEL351A	■ ②	■	■		■	■		■	■
Protection	SEL351S	■ ②	■	■		■	■		■	■
Protection	SEL710	■ ②	■	■		■	■		■	■
Protection	SEL751	■ ②	■	■		■	■		■	■
Protection	SEL751A	■ ②	■	■		■	■		■	■
Protection	SEL787	■ ②	■	■		■	■		■	■
Protection	ETR4000	■	■	■		■	■		■	■
Protection	ETR5000	■	■	■		■	■		■	■
Protection	EGR5000	■	■	■		■	■		■	■
Utility scale photovoltaic inverter	Solar inverter	■	■	■		■	■		■	■

① Reduced channel support for the Power Xpert Meter 4000/6000/8000.

② Requires default Modbus TCP Register assignments.

Technical specifications

Table 3. PXG part numbers

Description	Eaton style number	Eaton catalog number
Power Xpert Gateway 900	66D2325G01	**PXG900**
Power supply—24 Vdc	PSG60N24RP-A1	**PSG60N24RP**
Enclosed Power Xpert Gateway		**PXG900-2A**
Enclosed Power Xpert Gateway—480 V		**PXG900-2B**

Memory

- Flash: 2 GB
- RAM: 1 GB

Communication ports

- Network ports: Two 10/100/1000BASE-T RJ-45 connectors
- Serial ports
  - Two RS-485 ports for connection to Modbus RTU devices
  - One dedicated RS-485 port for INCOM devices
- Configuration port: One USB port

Network protocols supported

- Modbus TCP/IP: Supports data access from Modbus TCP clients
- Web server: Supports data access from Web browsers (HTTP and HTTPS)
- DHCP: Supports automatic IP address assignments, if enabled
- NTP: Supports time synchronization via a network time server for PXG synchronization
- SMTP: Supports mail server for email notification
- BACnet/IP: Supports data access from BACnet clients
- SNMP v.1 / v.3: Supports data access from SNMP clients using the following supported MIBs (Eaton OIDs reference MIB, Eaton Alarms+Traps MIB, RFC 4133 Entity MIB, RFC 4268 Entity State MIB, Eaton Power Device MIB, and Eaton Power Meter MIB)

Serial protocols supported

- INCOM
- Modbus RTU

Web browsers recommended

- Internet Explorer versions 10 and 11
- Google Chrome

Power input

- Input voltage, nominal: 24 Vdc; 0.3 A minimum
- Input voltage range: ±10% nominal

Power consumption

- 8 W maximum

Operating temperature

- +32 to +140 °F (0 to +60 °C)

Ambient storage temperature

- –40 to +185 °F (–40 to +85 °C)

Relative humidity

- 5 to 95% noncondensing at 122 °F (50 °C)

Size (H x D x L) in inches

- 2.00 x 4.50 x 6.00

Weight

- 1.7 pounds

Supported devices and performance

PXG performance will vary depending upon the number and type of connected devices. This is driven by the following:

- Each supported device has a distinct number of channels to report back to the PXG, ranging from as few as 4 to over 900
- The channels are prioritized
- Device protocol, Modbus or INCOM
- Baud rate setting

For this reason, a PXG modeling tool has been developed to assist in understanding the expected performance for a given application because all systems are unique. This tool can be found at www.eaton.com/pxg. For a high level performance comparison, see the table below for three examples.

	For this combination of devices (all times in seconds)		
How long does it take	**64 INCOM / 32 Modbus**	**15 INCOM / 15 Modbus**	**5 INCOM**
Between value change in the UI (INCOM 9600)—Priority 1	21.9	3.7	1.4
Between value change in the UI (Modbus 57600)—Priority 1	3.5	1.6	—
Between value change in the UI (INCOM 9600)—Priority 2	44.3	7.4	2.6
Between value change in the UI (Modbus 57600)—Priority 2	7.0	3.1	—
Modbus server pass-through response time (57600) (local connection)	0.061	0.059	—
For the UI to show an alarm (INCOM device)	17.0	3.0	3.0
To boot up (all devices communicating)	399.0	85.0	51.0

Regulatory and standards compliance

- UL® 508, Standard for Programmable Controller Equipment
- FCC, Class A, Part 15, Subpart B, Sections 15.107b and 15.109b
- EN55022:2010/A1:2011 Class A and EN55024:2010 Information Technology Equipment
- EN 61326-1:2006 and EN 61326-2-2:2006 Electromagnetic Compatibility (EMC) in Industrial Environments

Note: Features and specifications listed in this document are subject to change without notice and represent the maximum capabilities of the product with all options installed. Although every attempt has been made to ensure the accuracy of information contained within, Eaton makes no representation about the completeness, correctness, or accuracy and assumes no responsibility for any errors or omissions. Features and functionality may vary depending on selected options.

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