



REAL TIME AUTOMATION

Eaton PX4000 Power Meters On BACnet/IP



FEATURES

- Fully Compliant BACnet IP Server
- Pre-loaded PX Modbus Profile
- PX Profile Includes Tag Names, Units and Scaling Factors
- BACnet Analog Data Automatically Scaled per PX Profile
- Support for up to Ten PX Devices
- Supports Function Code 1, 2, 3, 4, 5, 6, 15, and 16
- Effortless Browser Based Configuration
- Web Based HMI (optional)
- 10/100 BaseT Operation
- Includes Ethernet Device Management Tool
- No Programming Required

Get Your PX4000 Power Meter Data on BACnet/IP

The 460MX moves power and energy data between one or more PX4000 Power Meters and BACnet/IP Clients like Johnson Controls Metasys. With energy costs rising and increased concern about energy and power quality, more and more building managers need access to the real time energy and power data collected by Eaton PX4000 Meters. Managers want to access that data over BACnet/IP, the networking standard for commercial building automation. The 460MX is perfect for this task. In fact, it's been designed solely to move data from PX4000 Meters to BACnet-based Building Automation systems.



With the 460MX you have a device that can be quickly deployed and easily configured to integrate PX4000 Power Meters into Your BACnet Building Automation System.

No Nasty Configuration Headaches

The 460MX comes pre-programmed ready to be integrated. A user editable profile automatically maps many of the important PX Modbus registers to BACnet Analog points. You simply select the Modbus address for each PX Meter. If your application requires additional PX Registers you can simply edit and reload the profile to access other PX data points. **In Most Apps There's No Need To Look At The PX Register List!**

Some BACnet Clients, like Metasys require more than just data values. To meet this need the PX profile includes tag names, unit designations and scaling factors for each PX register. These tag strings and automatic scaling factors are easily customized for your application by editing the PX profile.

Move Your Data Bi-directionally

You can both receive energy data from your PX4000 Power Meter and send new control parameters to the Meter from your BACnet/IP Client.

Configure Your Data Transfer from a Web Page

No special software is required. The unit is completely configurable using your Browser.

The Legend Begins

"It's likely that your business isn't industrial networking. And it shouldn't be. You make products, products that do wonderful things. Whatever it is that you make the process creates data. If you're a control engineer and your plants been around for more than a few years your plant floor is probably littered with devices that send out all kinds of data, and in most case data talking in a lot of different protocols. If you're an automation device developer you probably need to move your data into some other network. Either way, you've got a device conversion problem. You have devices that generate ASCII data, Modbus RTU, Ethernet TCP Data, DeviceNet data or some completely proprietary data and now you're the guy that has to move that data to some other network!"

*I feel your pain... and better than my sympathy I have a solution for you. You see while your business isn't moving data around the factory floor mine is. In fact it is all we have done for more than twenty years now. Our 460 series of Device Converters line is the culmination of those twenty years. You can now move all of your data, where you want, when you want and how you want. Best of all **THE HARDEST PART IS OPENING THE BOX**".*

John Rinaldi

It's Easy to Set Up

Sound complicated? It's not. Just Three Simple Steps!

ONE, Start by opening the web page for the device from any browser. All you need to do is simply enter the IP address of the gateway.

TWO, configure your BACnet communication parameters and select the PX4000 button from the configuration page.

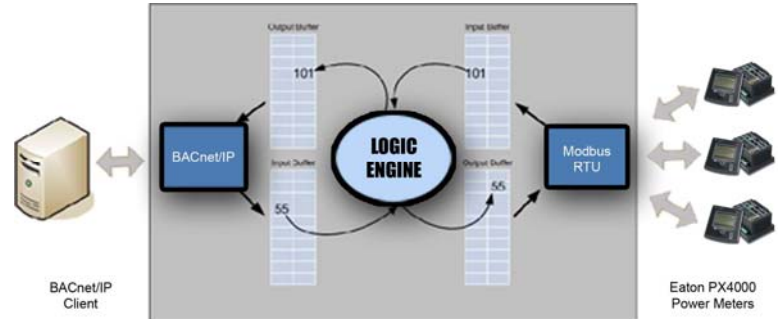
THREE, View the summary list of Modbus registers supported by the device and you're done!

No complicated procedures and best of all it's browser driven!

NO SPECIAL SOFTWARE IS REQUIRED

How It Works:

The products in the Instant Device Converter product line contain an IEC standard control engine that moves your data from buffer to buffer. Input data from one network is moved to the output buffer of one or more other networks. Input data from those networks is moved to the output area



ENCLOSURE / HARDWARE	
Size	4.2" x 3.25" x 1"
Weight	5.4 oz.
Enclosure Type	Anodized Aluminum
Mounting	Din Rail
Connectors	Port 0: TSTRIP (RS232, RS-485, CAN) Port 1: DB-9 (RS232, RS485, CAN) <i>(Only one RS232, RS485, or CAN port setting can be active per unit. For example, a unit cannot have two ports set for RS232 or two ports set for CAN.)</i> RJ45 10/100 Base-T (Ethernet) Barrel Power Connector (2.1mm P5)
LEDs	Ethernet Link/Data LED, Ethernet Speed LED, Power LED, & 2 general purpose LEDs on side.
CONTROL LOGIC	
Specification	IEC 61131-3
Supported Logic Types	Ladder Logic, Instruction List, Function Block Programming, Structured Text, and Sequential Function Chart
Application Debug & Monitoring	Included
Visualization Access	Remote Browser
Data Typing	Strong Data Typing
ELECTRICAL/ENVIRONMENTAL	
Network Interface	10/100 BaseT with RJ-45 Connector
DC Input Voltage	8 V @ 230 mA to 28 V @ 80 mA
Power Adapter	1.2 A @ 7.5 VDC
Maximum Baud Rate	115K Baud
Device IP Address Management	IPSetup™ — automatically locates RTA Instant Device Converters
Operating Temperature	-40 C to 85 C
Certification	RoHS-Compliant, UL, CUL, CE Approvals



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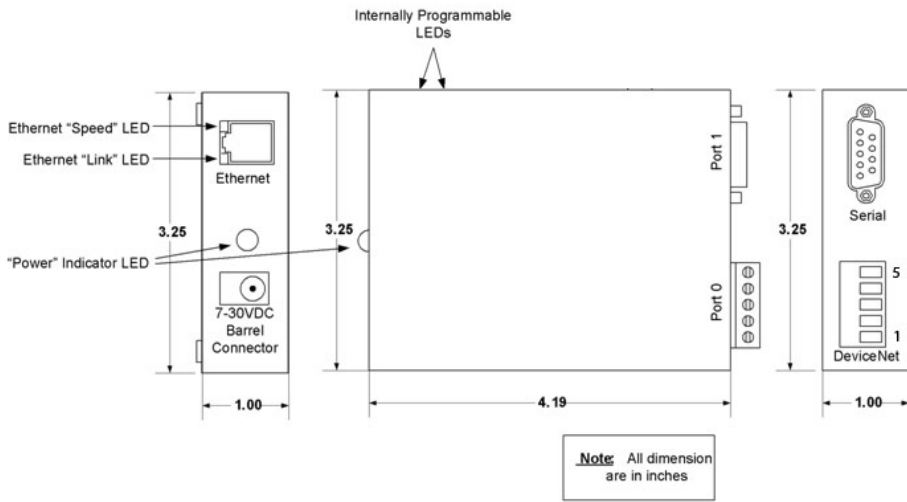
Parameters

Address	Parameter	Address	Parameter
44611	IA	44667	Phase A Watts
44613	IB	44669	Phase B Watts
44615	IC	44671	Phase C Watts
44617	IG	44673	Phase A VAR
44619	IN	44675	Phase B VAR
44621	Iavg	44677	Phase C VAR
44623	VAB	44679	Phase A VA
44625	VBC	44681	Phase B VA
44627	VCA	44683	Phase C VA
44629	VLLavg	44685	Phase A PFd
44631	VAN	44687	Phase B PFd
44633	VBN	44689	Phase C PFd
44635	VCN	44691	Phase A PFa
44637	VLNavg	44693	Phase B PFa
44639	VNG	44695	Phase C PFa
44651	Real Power	46305	Forward Wh
44653	Reactive Power	46309	Reverse Wh
44655	Apparent Power	46313	Sum Total Wh
44657	PFd	46317	Delivered/Leading Varh
44659	Pfa	46321	Received/Lagging Varh
44661	Frequency	46325	Net Varh
44663	K-factor	46329	Vah
44665	Transformer Harmonic Derating Factor		



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Dimensions



Connector Pin-Outs

PORT 1 (DB9)				
Pin	RS-232	RS-485	RS-422	CAN
1	CD	-	-	-
2	RX	TX-	TX-	CANL
3	TX	-	RX+	-
4	DTR	-	-	-
5	GND	GND	GND	GND
6	DSR	-	RX-	-
7	RTS	TX+	TX+	CANH
8	CTS	-	-	-
9	RI	-	PWRIN	PWRIN

PORT 0 (TStrip)				
Pin	RS-232	RS-485	RS-422	CAN
1	GND	GND	GND	GND
2	RX	TX-	TX-	CANL
3	TX	TX+	TX+	SHEILD
4	RTS	RX-	RX-	CANH
5	CTS	RX+	RX+	PWRIN

CATALOG #	DESCRIPTION
460MX	PX4000 Power Meter to BACnet/IP

Sales & Service

PLACING YOUR ORDER

You can place your order by faxing 262-439-4989 or emailing orders@rtaautomation.com.

TECHNICAL SUPPORT

Phone Support: 1-800-249-1612
 Email Support: support@rtaautomation.com

Support for Other Industrial Networks

Versions of the **460 Line of Instant Device Converters** support a large number of industrial networks and more are being added. Every one of these are implemented using our simple web-based integration and configuration architecture found in all 460 Device Converters. Connect any number of protocols with the same easy integration and configuration the 460 Line of Device Converters is known for.

INDUSTRIAL NETWORK SUPPORTED			
ASCII RS232	Modbus RTU Slave	Raw TCP Client	EtherNet/IP Server
ASCII RS485	Modbus TCP Server	Raw TCP Server	EtherNet/IP Client
BACnet IP	Modbus RTU Master	CANopen Slave	DeviceNet Master
Modbus TCP Client	*** CALL ABOUT YOUR PROPRIETARY PROTOCOL ***		DeviceNet Slave

Proprietary Protocol Support

The **460 Instant Device Converters** can be customized for specific applications and proprietary communications. The logic engine supports five worldwide, open standard programming languages and provides maximum flexibility for controlling your data as it moves around your factory floor or building. Call for more information on adding custom code to a 460 gateway.



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For More Information:

1-800-249-1612
sales@rtaautomation.com