

460MMBS



REAL TIME AUTOMATION



## Modbus RTU Master / BACnet/IP Server

### FEATURES

- Fully Compliant BACnet/IP Server
- Fully User Configurable Modbus RTU Master
- Exchange BACnet/IP Data with Modbus RTU Slaves
- BACnet/IP Supports Up To 150 Analog Input and 150 Analog Output Properties
- BACnet/IP Supports Up To 1600 Binary Input and 1600 Binary Output Properties
- Support for up to 31 Modbus RTU Devices
- Support Modbus Function Codes 1, 2, 3, 4, 5, 6, 15, and 16
- Effortless Browser Based Configuration
- 10/100 Base-T Operation
- Includes Ethernet Device Management Tool
- No Programming Required

### **An Instant Device Converter™ Product**

Move Your Legacy Modbus RTU data to a BACnet/IP Network

**Move Your Data Where You Want, When You Want, How You Want**

### **Integrate Your Modbus RTU Slaves Into Your Building Management System Over BACnet/IP**

The 460MMBS moves data between Modbus RTU slave devices and a Building Management system using BACnet/IP. There are thousands of Modbus RTU sensors and actuators which are commonly used in building systems. These devices include temperature sensors, power meters, air handlers, drives, flow meters and other sensors of every type imaginable.

**With the 460MMBS you have a device that you can quickly deploy and easily configure to access and integrate these devices into Building Automation Systems.**

#### **Move Your Data Bi-directionally**

You can both send data to your Modbus RTU slave devices and receive data from your Modbus RTU slaves. Register and Coils in the Modbus RTU slaves are mapped directly to BACnet/IP properties of Analog Input, Analog Output, Binary Input, and Binary Output. UP to 150 Analog Inputs, 150 Analog Outputs, 1600 Binary Inputs, and 1600 Binary Outputs can be mapped to registers and coils in up to 31 Modbus RTU devices.

#### **Configure Your Data Transfer from a Web Page**

All the data transfer is configurable using the embedded web server. You define the number of Modbus RTU slave devices and you set one or more configurable groups of registers and/or coils to transfer from each slave and how those registers are mapped to Analog and Binary Properties in the BACnet/IP server.

The 460MMBS is the Smart Connection solution for moving data between Modbus RTU slave devices and Building Management systems using BACnet/IP.

### **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 with Internet Explorer.

**TWO:** Edit the Modbus RTU Master and BACnet/IP communication modules to connect to your system using our easy browser based configuration page.

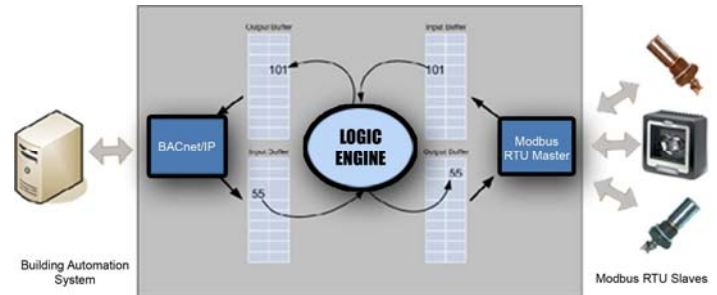
**THREE:** Set the IP Address, Subnet Mask, and Gateway Address to match your field setup and then connect our configured unit to your system.

Nothing complicated, 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 of the other networks.



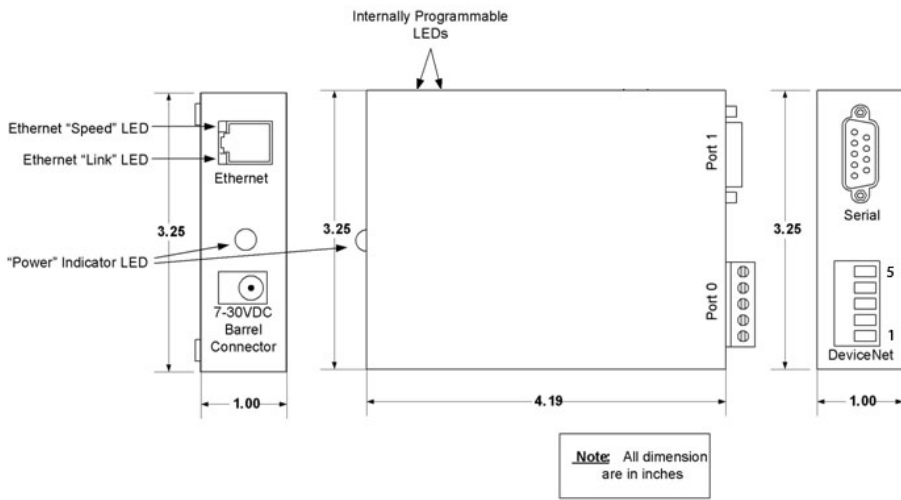
ENCLOSURE / HARDWARE	
Size	4.2" x 3.25" x 1"
Weight	5 oz.
Enclosure Type	Anodized Aluminum
Mounting	Din Rail
Connectors	Port 0: T-STRIP (RS232, RS485/RS422, CAN) Port 1: DB-9 (RS232, RS485/RS422, CAN) <i>**Only one RS232, RS485/RS422, or CAN port setting can be active per unit**</i> RJ45 10/100 Base-T (Ethernet) 2 Pin Barrel Connector
LEDs	Ethernet Link/Data, Ethernet Speed, Power, and two general purpose LEDs

ELECTRICAL/ENVIRONMENTAL/TOOLS	
Network Interface	10/100 Base-T with RJ-45 Connector
Power	8 V @ 230 mA to 28 V @ 80 mA
Maximum Serial Baud Rate	115K Baud
Device IP Address Management	<b>IPSetup™</b> — automatically locates RTA Instant Device Converters
Operating Temperature	-40 C to 85 C
Certification	RoHS-Compliant, UL, CUL, CE Approvals



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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

**Zero Configuration and Setup Time Options for Modbus RTU Power Meters to BACnet/IP**

If you're looking for a simple solution to get your Modbus RTU power meters on BACnet/IP, we have a 460MX model designed solely for that purpose. The 460MX is essentially a 460MMBS but in the Modbus RTU slave configuration it features drop down selections to automatically map the Modbus data coming in for many of the leading power meters. This can save hours of configuration headaches. For more information, visit <http://www.rtaautomation.com/products/mx> or call 262-439-4999.

CATALOG #	DESCRIPTION
460MMBS	Modbus RTU Master / BACnet/IP Server Device Converter

**Sales & Service**

**PLACING YOUR ORDER**

Orders can be placed 24 hours per day. You can place your order by faxing 262-439-4989 or emailing [orders@rtaautomation.com](mailto:orders@rtaautomation.com).

**TECHNICAL SUPPORT**

**Phone Support:** 1-800-249-1612 during normal business hours  
**Email Support:** Is available by emailing [support@rtaautomation.com](mailto: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.

**Proprietary Protocol Support**

The **460 Instant Device Converters** can be customized for specific applications and proprietary communications. All 460 Instant Device Converters are based on an IEC 61131-3 programming engine. The 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.

**For More Information:**

1-800-249-1612  
[sales@rtaautomation.com](mailto:sales@rtaautomation.com)



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