

# 460MMBS

## Modbus RTU to BACnet/IP Converter

### Features

- Move Your Legacy Modbus RTU data to BACnet/IP Networks
- Fully Compliant BACnet IP Server
- Supports Up To 150 Analog Input and 150 Analog Output Properties
- Supports Up to 1600 BACnet Binary Input and 1600 Binary Output Properties
- Fully User Configurable Modbus RTU Master
- Support for up to 31 Modbus RTU Devices
- Up to 400 Modbus Registers per modbus Slave Device
- Support for Function Code 3,4,6 and 16
- Effortless Browser Based Configuration
- 10/100 BaseT Operation
- Includes Ethernet Device Management Tool
- No Programming Required

### Move Modbus RTU Slave Register Data To Your Building Automation Systems

The 460MMBS moves data between a group of Modbus RTU Slave devices and a BACnet/IP enabled Building Automation System (BAS). 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 from a BACnet/IP Client and also receive data from your RTU slaves using analog and binary properties. A total of 150 analog input properties, 150 analog output properties, 1600 binary inputs and 1600 binary outputs can be connected to as many as 31 Modbus RTU Slave devices.

### Configure Your Data Transfer from a Web Page

All the data transfer is configured using the embedded web server. You define the number of Modbus RTU slave devices and the Modbus registers and coils connected to the analog and binary BACnet properties.

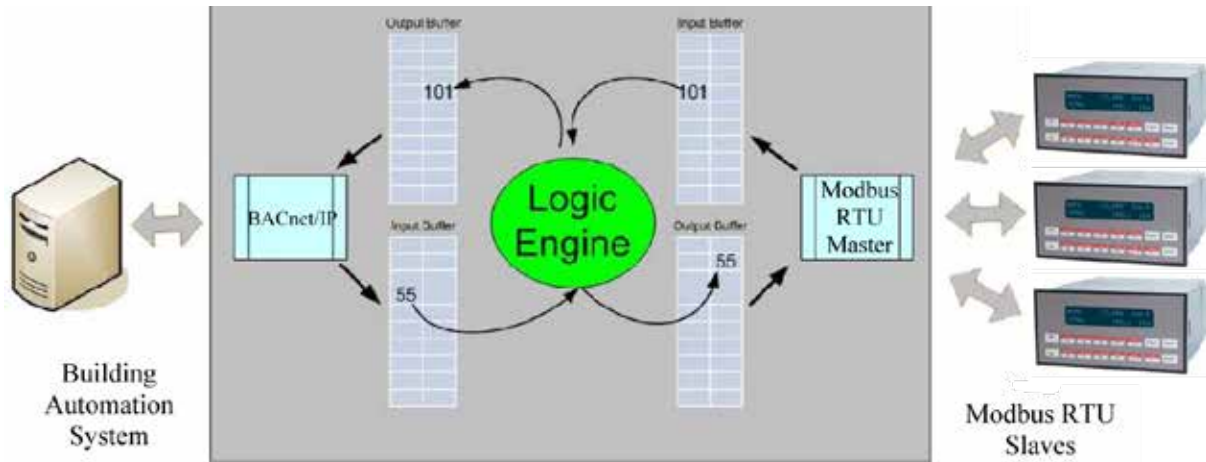


### Specifications:

ENCLOSURE / HARDWARE	
Size	4.2" x 3.25" x 1"
Weight	6.5 oz.
Enclosure Type	Anodized Aluminum
Mounting	Din Rail
Connectors	Port 0: TSTRIP (RS232, RS-485, CAN) Port 1: DB-9 (RS232, RS485, CAN) (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.) 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

## How It Works:

The products in the Instant Device Converter product line contain a 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.



Using an off-the-shelf, standard control engine for the transfer of data. Means that we can easily customized the software to meet your specific application requirements.

## Easy Setup:

**ONE**, Start by opening the web page for the device from any browser. All you need to do is simply enter your IP and Gateway Addresses and set your network mask. fig 1

**TWO**, Edit your communication modules. Configure your device object properties like Modbus Timeout, Modbus Delay, Device Name, Analog Input and Output, and Binary Input and Output. fig 2

**THREE**, View the summary list of Modbus registers supported by the device. And You're Done!

Fig 1 - Main Page Screen Shot

Description	Enter an application description.	<a href="#">Edit</a>
460MMBS Network Settings	IP address: 192.168.0.100 Subnet mask: 255.255.255.0 Default gateway: 192.168.0.1 MAC address: 00-03-F4-03-8D-18	<a href="#">Edit</a>
Selected Communication Modules	<b>Modbus RTU Master</b> RS-232 on Port 1 19200 baud, no parity, 8 data bits, 1 stop bit <b>BACnet IP Server</b> Device Instance: 0 Device Name: Testing Description: Location: Number of Objects to Expose: AI: 0, AO: 0, BI: 0, BO: 0	<a href="#">Edit</a>
Server Module Configuration	<b>BACnet IP Server</b> No configurable parameters	<a href="#">Edit</a>
Client Module Configuration	<b>Modbus RTU Master</b> No devices configured	<a href="#">Edit</a>

Fig 2 - Communications Module Screen Shot

Communication Module	Action Enabled?	Detail
Master	<a href="#">Edit</a> <input checked="" type="checkbox"/>	Response Timeout: 1000 ms (10-10000) Delay Between Polls: 100 ms (10-10000) Connector: Port 1 (COM) Mode: RS-232 Baud: 19200 Parity: None Data: 8 Bits Stop: 1 Bit
RTU Slave	<a href="#">Edit</a>	
TCP Client	<a href="#">Edit</a>	
TCP Server	<a href="#">Edit</a>	
EthernetIP Client	<a href="#">Edit</a>	
EthernetIP Server	<a href="#">Edit</a>	
DeviceNet Master	<a href="#">Edit</a>	
DeviceNet Slave	<a href="#">Edit</a>	
Client	<a href="#">Edit</a>	
Server	<a href="#">Edit</a> <input checked="" type="checkbox"/>	Device Instance: 0 (0-4194303) Device Name: Testing Description:

Fig 3 - Communications Module Screen Shot

Device Buffer #	Comm Module	Device Address	Data In		Data Out	
			Registers (or Coils)	Program Tags	Registers (or Coils)	Program Tags
4	Modbus RTU Master	Device Label	PointType	Address Length	PointType	Address Length
		Slave Address (1-254)	0	8	0	8
			0	8	0	8
			0	8	0	8
			0	8	0	8
			0	8	0	8
			0	8	0	8

## Ordering Information

MODEL #	DESCRIPTION
460MMBS	Modbus RTU to BACnet/IP Converter