Connect Modbus RTU Servers to BACnet/IP Client

The 460MMBS moves data between up to 32 Modbus RTU Servers and a BACnet/IP Building Automation System (BAS). It’s the perfect tool that allows you to use the plethora of Modbus RTU devices available in your BACnet/IP Building Automation Systems.

How Do I Use the 460MMBS-NNA1 in My Application?

Modbus register data is mapped to BACnet analog objects and Modbus coil data is mapped to Binary objects. The only additional piece required for BACnet is adding metadata which is nothing more than an ASCII description of each object. No other deep understanding of either protocol is required to configure the gateway. It really is that simple.

Why Use Real Time Automation as a Gateway Supplier?

While there are certainly other companies offering protocol gateways, there is no one who provides the level of support and service that you receive from RTA.

When you call, a live person answers the phone. When you talk with sales, you will get honest answers and recommendations. When you get support, it is from an engineer who had a hand in the product’s development, and support doesn’t require a ticket or 24-hour wait.

FEATURES

- Fully configurable Modbus RTU Client
- Connects up to 32 Modbus RTU Servers
- Fully configurable BACnet/IP server
- BACnet/IP supports device, binary I/O, analog I/O, and character string value object types
- Effortless Browser Based Configuration, no programming software is required
- Simple data translation allows you to manipulate data as it passes between protocols
- 5-Year Hardware Warranty
### Modbus RTU Master FEATURES

<table>
<thead>
<tr>
<th>Operation Mode</th>
<th>Modbus RTU Master</th>
</tr>
</thead>
<tbody>
<tr>
<td>Function Codes Supported</td>
<td>1, 2, 3, 4, 5, 6, 15 &amp; 16</td>
</tr>
<tr>
<td>Swapping</td>
<td>Byte and Word Swapping</td>
</tr>
<tr>
<td>Maximum Modbus RTU Slave Devices</td>
<td>32</td>
</tr>
<tr>
<td>Number Read/Write Scan Lines per RTU Slave Device</td>
<td>200 Total - 100 reads &amp; 100 writes</td>
</tr>
<tr>
<td>Scan Line Support</td>
<td>Up to 125 Registers or 512 Coils</td>
</tr>
</tbody>
</table>

### BACnet/IP Server FEATURES

<table>
<thead>
<tr>
<th>Operation Mode</th>
<th>BACnet/IP Server</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supported Object Types</td>
<td>Device, Binary I/O, Analog I/O, Character String Value</td>
</tr>
<tr>
<td>Supported Service Codes</td>
<td>Read &amp; Read Multiple-B, Write &amp; Write Multiple-B, COV &amp; COV unsolicited-B, Device Dynamic Binding-B, Dynamic Object Binding-B</td>
</tr>
<tr>
<td>Maximum Connections</td>
<td>1</td>
</tr>
<tr>
<td>Analog Objects Supported</td>
<td>1200 Input and 1200 Output</td>
</tr>
<tr>
<td>Binary Objects Supported</td>
<td>1600 Input and 1600 Output</td>
</tr>
</tbody>
</table>

### INCLUDED WITH GATEWAY

| 3' power cable with flying leads | 5-year hardware warranty |
| IPSetup software – automatically locates RTA gateway on the network | Unlimited firmware feature upgrades for life |
| CAT5 crossover cable for direct connection to PC during programming | Complete, unlimited access to our industry leading support staff |

### ELECTRICAL / ENVIRONMENTAL

| DC Input Voltage        | 12-24 VDC                             |
| Maximum Baud Rate       | 115K baud                             |
| Operating Temperature   | -40 °C to 85 °C                       |
| Certification           | RoHS-Compliant, UL, CUL, CE Approvals |

### ENCLOSEMENT / HARDWARE

| Size                    | 3.88" x 2.57" x 1.06" |
| Weight                 | 5.5 oz                   |
| Enclosure Type         | Anodized Aluminum        |
| Mounting               | Din rail or panel mount   |
| LEDs                   | Power LED & 2 general purpose LEDs on side |

### GATEWAY FEATURES & FUNCTIONS

| Alarming               | Set <, <=, >, >=, ==, !=, and change-of-state rules on any data moving through the gateway. If alarm rule is triggered an email notification can be sent. |
| Gateway Security       | You can configure up to 9 different users access to diagnostic and configuration screens. |
| Translation Table      | Allows for data manipulation during protocol translation. Scaling and other data format changes can occur in the gateway. |
| Status and Counters    | Protocol specific status, counters, and error messages are accessible within the gateway's diagnostics page. They can also be delivered to a connected device. |
| Diagnostic Logging Page| Allows users to see and log start up sequences, protocol specific messages & error messages. |

### CATALOG #

<table>
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<tr>
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<th>DESCRIPTION</th>
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### NOT EXACTLY WHAT YOU WERE LOOKING FOR?

Real Time Automation offers a full line of gateway products. Give us a call at 1-800-249-1612. Or, check out a listing at [www.rtautomation.com/products](http://www.rtautomation.com/products). We also offer customizations for unique applications.