



## Modbus RTU Slave / ASCII

### FEATURES

- Simple Mapping from an ASCII device to Modbus Registers
- Bi-directional Handshaking Protocol Avoids Data Loss
- Support Modbus Function Codes 3, 6, and 16
- Perfect for ASCII Devices like Barcode Readers & Scales
- Effortless Browser Based Configuration
- 10/100 BaseT Operation
- Includes Ethernet Device Management Tool
- No Programming Required

## An Instant Device Converter™ Product

Move Your ASCII Data to Your Modbus RTU Device

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

### Get ASCII Data Into Your Modbus PLC or HMI

The 460MRSA moves data between ASCII devices and a Modbus RTU Master. There are thousands of ASCII devices in automation systems. These devices include weigh scales, drives, barcode readers and sensors of every type imaginable.

**With the 460MRSA these devices can be quickly deployed, easily configured and rapidly integrated with your Modbus RTU PLC, HMI or PC Application.**

#### Turn Your ASCII String Into a Set Of Modbus RTU Slave Registers

Now, with the 460MRSA you can capture this data in Modbus RTU Slave Registers and easily bring it into your PLC, HMI or PC based Modbus RTU Master device. See your barcode, weigh data or measurement data as a series of consecutive Modbus registers.

#### Move Your Data Bi-directionally

Your Modbus RTU Master can both get ASCII data from devices like barcode readers and weigh scales and send it out to an ASCII device like a small display unit. Up to 255 Bytes of ASCII data can be transferred.

An optional handshaking sequence is available for those applications that require confirmation on each ASCII data transfer.

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

All the data transfer is configurable using the embedded web server. You define the Modbus RTU Slave device address and the ASCII message length, receive character timeout, and delimiters of the module.

The 460MRSA is the Smart Connection solution for moving data between ASCII devices and a Modbus RTU Master.

### 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 plant has been around for more than a few years your floor is probably littered with devices that send out all kinds of data and in most cases data comprised of many 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 other completely proprietary data and now you're the person that has to move that data to some other network!"*

*I feel your pain... and rather than just my sympathy, I have a solution for you. You see, while your business may not be moving data around a factory floor mine is. In fact, it's all that we have done for over twenty years now. Our 460 series of Device Converters 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 Slave and ASCII communication modules to connect to your system using our easy browser based configuration page.

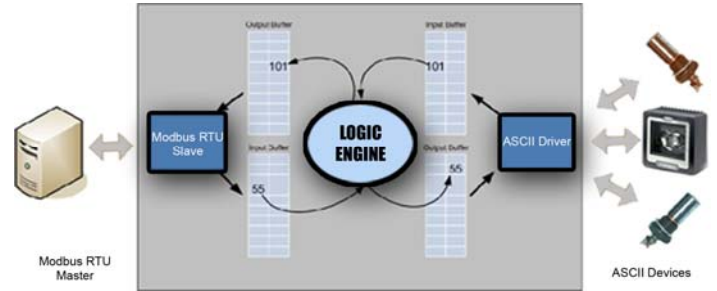
**THREE:** Set the IP Address, Subnet Mask, and Gateway Address to match your field setup and then connect our configured unit to your system.

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.



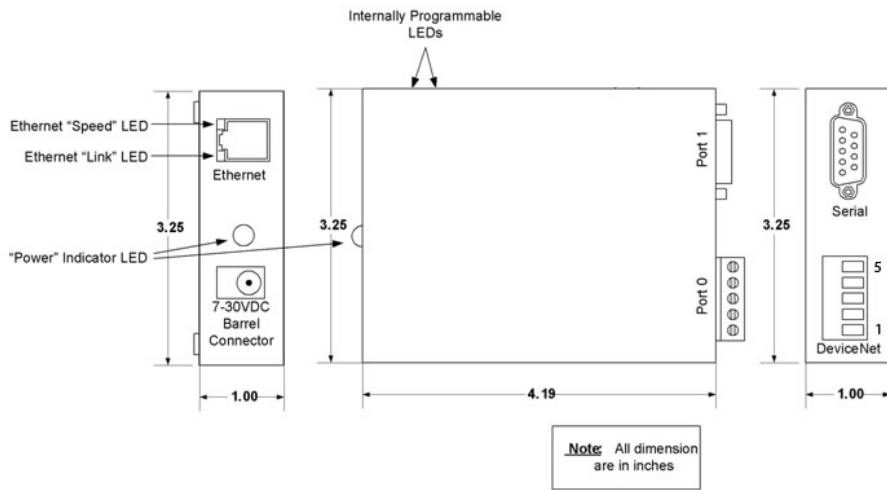
ENCLOSURE / HARDWARE	
Size	4.2" x 3.25" x 1"
Weight	5 oz.
Enclosure Type	Anodized Aluminum
Mounting	Din Rail
Connectors	Port 0: T-STRIP (RS232, RS485/RS422, CAN) Port 1: DB-9 (RS232, RS485/RS422, CAN) <i>**Only one RS232, RS485/RS422, or CAN port setting can be active per unit**</i> RJ45 10/100 Base-T (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



REAL TIME AUTOMATION

**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
460MRSA	Modbus RTU Slave / ASCII Device Converter

**Sales & Service**

**PLACING YOUR ORDER**

Orders can be placed 24 hours per day. You can place your order by faxing 414-453-5125 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 with more being added weekly. Every one of these is implemented using the simple web-based integration and configuration architecture found in all 460 Device Converters.

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	<b>*** CALL ABOUT YOUR PROPRIETARY PROTOCOL ***</b>		DeviceNet Slave

**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 providing maximum flexibility for controlling your data as it moves around your factory floor or building. Logix can be added to the Instant Device Converter

**For More Information:**

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



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