



## REAL TIME AUTOMATION GATEWAY

## BFR3000 – NNA1

# MODBUS ROUTER

### KEY FEATURES

- ▶ Easily connect your Modbus TCP/IP, RTU and ASCII devices
- ▶ Supports both RTU and ASCII encoding
- ▶ UL & CE
- ▶ Support for all Modbus function codes
- ▶ SD card auto replacement backup
- ▶ Ability to save configurations for backup or loading multiple units
- ▶ Amazing diagnostics screens and troubleshooting tools.
- ▶ Simple, browser-based configuration
- ▶ 5-year hardware warranty

### The Easiest Way to Move Modbus Registers and Coils Between Modbus TCP/IP and Modbus RTU Network Devices

The BFR3000 offers transparent data transfer between Modbus devices and controllers on different physical layers. The BFR3000 also has three operating modes making it your go-to device for moving data between Modbus networks.

#### Modbus RTU Master to Modbus TCP/IP Client

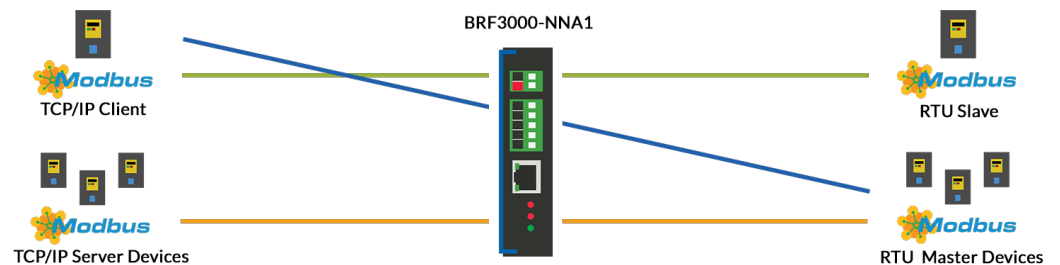
The router becomes a shared block of Modbus registers and coils. Either protocol is able to read or write values to and from the shared block of data.

#### Modbus RTU Slaves to Modbus TCP/IP Client

Modbus RTU slaves are presented as Modbus TCP/IP servers. Requests sent to a Modbus TCP/IP node ID will be routed to the matching slave ID on the Modbus RTU network.

#### Modbus TCP/IP Servers to Modbus RTU Master

Modbus TCP/IP servers are presented as Modbus RTU slaves. Define the IP address and unit ID's of your Modbus server devices in the router. Then define what slave ID they will be mapped to.



### Why Use RTA?

Other companies might offer stand-alone routers, but nobody matches the support and service you'll get from RTA. When you call, a real person picks up the phone. Sales gives you straight answers and solid recommendations. And when you need support, you'll talk to an engineer who helped build the product—no tickets, no waiting, just real help, right away.

**FEATURES**

Configuration Mechanism	Web Based Browser Configuration
Baud Rates Supported	110, 300, 600, 1200, 2400, 4800, 9600, 14400, 19200, 28800, 38400, 56000, 57600, 62500, 76800, 115200
Physical Connections	RS232, RS485, Ethernet
Modbus Variations Supported	TCP/IP, RTU, ASCII

**MODBUS TCP CLIENT / MODBUS RTU MASTER OPERATING MODE**

External Master	Can Read / Write up to 64K Registers and 64K Coils In BFR3000 using RTU or ASCII Encoding
External Client (s)	Can Read / Write up to 64K Registers and 64K Coils in BFR3000
Maximum Number TCP Client Connections	5
Function Codes Supported	1, 2, 3, 4, 5, 6, 15, 16

**MODBUS TCP CLIENT / MODBUS RTU SLAVE OPERATING MODE**

Number External Modbus TCP Clients Supported	5
Mapping	Unit ID Field in the Client Modbus TCP Message becomes Modbus RTU Slave Address on the Modbus Network
Number of Modbus RTU Slaves Supported	255
Function Codes Supported	All

**MODBUS RTU MASTER / MODBUS TCP SERVER OPERATING MODE**

Number External Modbus RTU Masters Supported	1
Mapping	User Configurable Mapping Table translates RTU Slave ID to Modbus TCP Address/Unit ID Field
Number of Modbus TCP Servers Supported	255
Function Codes Supported	All

**ELECTRICAL / ENVIRONMENTAL**

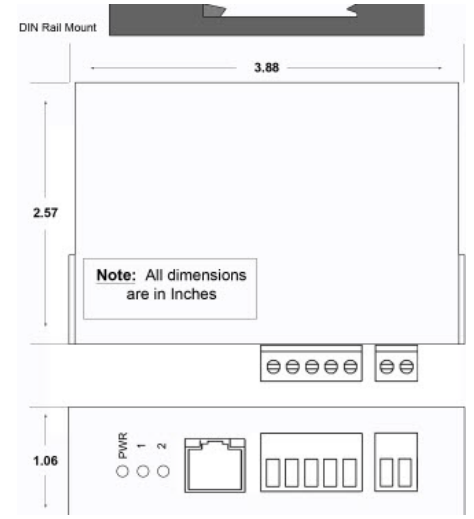
DC Input Voltage	8 V @ 230 mA to 28 V @ 80 mA
Maximum Baud Rate	115K Baud
Operating Temperature	-40 C to 85 C
Certification	RoHS-Compliant, UL, CUL, CE Approvals, Div1 Class2

**INCLUDED WITH GATEWAY**

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

**ENCLOSURE / 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 and two general purpose LEDs on side



**NOT EXACTLY WHAT YOU WERE LOOKING FOR?**  
 RTA offers a full line of gateway products. Give us a call at 1-800-249-1612 or visit [www.rtautomation.com/products](http://www.rtautomation.com/products). We also offer customizations for unique applications.

**CATALOG # DESCRIPTION**

BFR3000-NNA1	Modbus TCP / Modbus RTU Router
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ALWAYS IN STOCK	READY TO SHIP	BREWED IN WISCONSIN	EXPERT SUPPORT	5-YEAR WARRANTY	PROTOCOL PARTNER
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