



MODBUS TO BACNET GATEWAY EZ GATEWAY

DESCRIPTION

The **FieldServer EZ Gateway** offers System Integrators the tried and tested FieldServer protocols in an easy-to-use Modbus to BACnet Gateway. With the Profile Web Configuration Interface, profiles can be built in the field or in the office to be used time and time again on any EZ Gateway. Its two serial ports allow up to 64 Modbus RTU devices to be connected to one EZ Gateway. Modbus TCP/IP allows for fast responses from field devices using concurrent polling. It is ideal for integrators looking to minimize configuration time and commissioning costs, simplify training and start-up operations. Supports Modbus RTU, Modbus TCP/IP, BACnet MS/TP, BACnet/IP protocols.

BACNET ROUTER SOLUTION

Multiple BACnet Routing Connections

- BACnet/IP & BACnet MS/TP
- BACnet MS/TP & BACnet Ethernet
- BACnet MS/TP & BACnet MS/TP
- BACnet/IP & BACnet MS/TP
- BACnet/IP & BACnet Ethernet

FEATURES

- **Protocols supported: Modbus RTU, Modbus TCP/IP, BACnet MS/TP, BACnet/IP**
- **Any combination of Modbus to BACnet protocols can be selected**
- **Supports up to 500 or 1000 Modbus registers**
- **Supports BACnet Change of Value (COV) and BACnet Broadcast Distribution Device (BBMD)**
- **Easy to configure with the Web Interface via HTML page**
- **No additional software needed**
- **Diagnostics via the Web Interface**
- **Supports Modbus virtual nodes**
- **BTL approval marked**

NEW!

FieldServer



EZ Gateway



SPECIFICATIONS

Supply Voltage	12-24 VAC 50/60 Hz or 10-30 VDC	Protocol	Modbus RTU, Modbus TCP/IP, BACnet MS/TP, BACnet/IP
Supply Current	240 mA @ 12V	Gateway Operation	Modbus <-> BACnet
Communication		Operating Temperature	-40° to 167°F (-40° to 75°C)
Serial RS-485 x 2	Baud: 4800, 9600, 19200, 38400, 57600, 115200	Operating Humidity	5-90% RH non-condensing
Ethernet	10/100 BaseT MDIX	Mounting	DIN rail, Wall MNT tabs or Tabletop
Default IP	192.168.2.101	Dimensions	4.5"H x 2.9"W x 1.6"D (11.5 x 7.4 x 4.1 cm)
Subnet Mask	255.255.255.0	Weight	0.4 lbs (0.2 Kg)
Connections		Approvals	RoHS, CE, FCC, BTL Listed, CSA
Power	3 terminals	Warranty	2 years
RJ485	6 terminals (2-ports)		
Ethernet	RJ45 (used for setup)		
Setup			
Web Based	Internal HTML page		
Diagnostics	Web interface		
BBMD Server	Connect to remote BACnet networks		
FS-EZ1	250 Registered points		
FS-EZ2	500 Registered points		



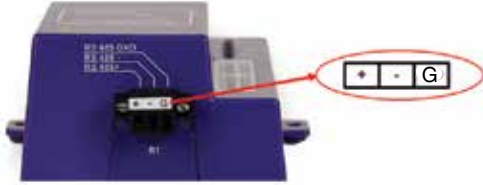
NETWORK

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WIRING

RS-485 Connection R1 Port (typical for BACnet)

Connect to the 3-pin connector as shown.



The following Baud Rates are supported on the R1 Port:
110, 300, 600, 1200, 2400, 4800, 9600, 19200, 20833, 28800, 38400, 57600, 76800, 115200

10/100 Ethernet Connection Port (used for both BACnet IP and Modbus TCP/IP)



The Ethernet Port is used both for BACnet Ethernet and BACnet/IP communications. It is also used for configuring the Gateway from a Web page. Follow the steps below to connect the Gateway to a BACnet network and optionally to a PC for configuration purposes:

- Connect an Ethernet cable between the PC and the Gateway or connect the Gateway and the PC to the Hub/switch using a straight Cat 5 cable.
- Disable any wireless Ethernet adapters on the PC/Laptop.
- Disable firewall and virus protection software.

RS-485 Connection R2 Port (typical for Modbus)



Connect to the 3 pins on the left-hand-side of the 6 pin connector as shown.

The following Baud Rates are supported on the R2 Port:
4800, 9600, 19200, 38400, 57600, 115200

Power up the Device



Apply power to the device. Ensure that the power supply used complies with the specifications. Ensure that the cable is grounded using the "Frame GND" terminal. The Gateway is factory set for 10-30 VDC or 12-24 VAC.

**NOTE: G and SG are the Signal Ground connections for the 3-pin connector
FG is the Frame Ground.**

LED FUNCTIONS

Light	Description
SPL	SPL LED will be on when a configured node in the EZ Gateway is detected as being offline. See Node overview screen of the FS-GUI for further details.
RUN	RUN LED will flash 20 seconds after power up, signifying normal operation. The EZ Gateway will be able to access FS-GUI (refer to Section 6.3 for more information) once this LED starts flashing. During the first 20 seconds, the LED should be off.
ERR	The ERR LED will go on solid 15 seconds after power up. It will turn off after 5 seconds. A steady red light will indicate there is a system error on the FieldServer. If this occurs, immediately report the related "system error" shown in the error screen of the FS-GUI interface to FieldServer Technologies for evaluation.
RX	On normal operation of FS-QS-10XX, the RX LED will flash when a message is received on the field port of the EZ Gateway.
TX	On normal operation of FS-QS-10XX, the TX LED will flash when a message is sent on the field port of the EZ Gateway.
PWR	This is the power light and should show steady green at all times when the EZ Gateway is powered.

ORDERING INFORMATION

MODEL	DESCRIPTION
FS-EZ1-MOD-BAC	Modbus to BACnet Gateway, 500 register points
FS-EZ2-MOD-BAC	Modbus to BACnet Gateway, 1000 register points

MODEL	ACCESSORIES
FS-8915-36-QS	Accessory Kit: 110/220V power supply, ethernet cable, screwdriver, DIN rail mounting and USB flash drive with discovery tool and documentation