

FieldServer – EZ Gateway

Modbus to BACnet Start-up Guide

FS-EZX-MOD-BAC



APPLICABILITY & EFFECTIVITY

Effective for all systems manufactured after August 2016.

Document Revision: 8.A



Technical Support

Please call us for any technical support needs related to the FieldServer product.

Sierra Monitor Corporation 1991 Tarob Court Milpitas, CA 95035

Website: www.sierramonitor.com

U.S. Support Information:

+1 408 262-6611

+1 800 727-4377

Email: support@sierramonitor.com

EMEA Support Information:

+44 2033 1813 41

Email: support.emea@sierramonitor.com





TABLE OF CONTENTS

2 Certification 5 2.1 BTL Mark – BACnet Testing Laboratory 5 3 Supplied equipment 5 4 Installing the EZ Gateway 6 4.1 Mounting 6 4.1 Mounting 6 4.2 RS-485 Connections 7 4.2.1 RS-485 Connection R1 Port. 7 4.2.2 RS-485 Connection R1 Port. 7 5 Operation 8 5.1 Power up the Device 8 5.2 Connect the PC to the EZ Gateway over the Ethernet Port. 8 5.3 Connecting to the EZ Gateway. 9 5.4.1 Using the Toolbox Application to Discover and Connect to the EZ Gateway. 9 5.4.1 Using the Toolbox Application to Set the IP Address 10 5.4 Set IP Address of the EZ Gateway. 10 5.4.1 Using the Connections 12 6.1 Setting up the Connections 12 6.2 Creating Device Profiles 16 6.3 Importing a Device Profile 16 6.4 Mapping BACnet Output wi	1	About the EZ Gateway	5
2.1 BTL Mark – BACnet Testing Laboratory 5 3 Supplied equipment 5 4 Installing the EZ Gateway 6 4.1 Mounting 6 4.2 RS-485 Connection R2 Port. 7 4.2.1 RS-485 Connection R2 Port. 7 4.2.2 RS-485 Connection R1 Port. 7 5 Operation 8 5.1 Power up the Device 8 5.2 Connect the PC to the EZ Gateway over the Ethernet Port. 8 5.3 Connecting to the EZ Gateway 9 5.3.1 Using the Toolbox Application to Discover and Connect to the EZ Gateway 9 5.3.2 Using the Toolbox Application to Secover and Connect to the EZ Gateway 9 5.4 Set IP Address of the EZ Gateway 10 5.4 Set IP Address of the EZ Gateway 10 5.4 Set IP Address of the EZ Gateway 10 5.4 Set IP Address of the EZ Gateway 10 6.1 Setting up the Connections 112 6.2 Creating Device Provide Application to Set the IP Address 10 6.3 Importing	2	Certification	5
3 Supplied equipment 5 4 Installing the EZ Gateway 6 4.1 Mounting 6 4.2 RS-485 Connection R2 Port. 7 4.2.1 RS-485 Connection R2 Port. 7 4.2.2 RS-485 Connection R2 Port. 7 4.2.1 RS-485 Connection R1 Port. 7 5 Operation 8 5.1 Power up the Device 8 5.2 Connect the PC to the EZ Gateway over the Ethernet Port. 8 5.3 Connecting to the EZ Gateway. 9 5.3.1 Using the Toolbox Application to Discover and Connect to the EZ Gateway. 9 5.3.2 Using the Toolbox Application to Set the IP Address 10 5.4.1 Using the Toolbox Application to Set the IP Address 10 5.4.1 Using the Connections 12 6.1 Configuring the EZ Gateway 12 6.2 Creating Device EZ Profiles 13 6.3.1 Importing a Device Profile 16 6.3.1 Importing a Device Profile 17 6.5 Test and Commission the EZ Gateway over the Network	-	2.1 BTL Mark – BACnet Testing Laboratory	5
4 Installing the EZ Gateway 6 4.1 Mounting. 6 4.2 RS-485 Connections 7 4.2.1 RS-485 Connection R2 Port. 7 4.2.2 RS-485 Connection R1 Port. 7 5 Operation 8 5.1 Power up the Device 8 5.2 Connect the PC to the EZ Gateway over the Ethernet Port. 8 5.3 Connecting to the EZ Gateway 9 5.3.1 Using the Toolbox Application to Discover and Connect to the EZ Gateway. 9 5.3.2 Using the Toolbox Application to Set the IP Address 10 5.4.1 Using the Toolbox Application to Set the IP Address 10 5.4.1 Using the EZ Gateway 12 6.1 Setting up the Connections 12 6.1 Setting up the Connections 12 6.2 Creating Device EZ Profiles 13 6.2.1 DeviceProxy Advanced Settings 16 6.3 Importing a Device Profiles 17 6.5 Test and Commission the EZ Gateway over the Network 19 Appendix A.1. Defore Contacting Technical Support t	2	Supplied equipment	5
4 Installing the EZ Gateway 6 4.1 Mounting 6 4.2 RS-485 Connections 7 4.2.1 RS-485 Connection R2 Port. 7 4.2.2 RS-485 Connection R1 Port. 7 5 Operation 8 5.1 Power up the Device 8 5.2 Connect the PC to the EZ Gateway over the Ethernet Port. 8 5.3 Connecting to the EZ Gateway 9 5.3.1 Using the Toolbox Application to Discover and Connect to the EZ Gateway. 9 5.3.2 Using Web Configurator GUI 9 5.4 Set IP Address of the EZ Gateway 10 6 Configuring the EZ Gateway 10 6.1 Setting up the Connections 12 6.1 Setting up the Connections 12 6.2 Creating Device EZ Profiles 13 6.3 Importing a Device Profile 16 6.4 Mapping BACnet Output with Device EZ Profiles 17 6.5 Test and Commission the EZ Gateway over the Network 19 Appendix A.1. Communicating with the EZ Gateway over the Network 19 </th <th>3</th> <th>Supplied equipment</th> <th></th>	3	Supplied equipment	
4.1 Mounting 6 4.2 RS-485 Connection R2 Port. 7 4.2.1 RS-485 Connection R1 Port. 7 4.2.2 RS-485 Connection R1 Port. 7 5 Operation 8 5.1 Power up the Device 8 5.2 Connect the PC to the EZ Gateway over the Ethernet Port. 8 5.3 Connecting to the EZ Gateway 9 5.3.1 Using the Toolbox Application to Discover and Connect to the EZ Gateway 9 5.3.2 Using Web Configurator GUI 9 5.4.1 Using the Toolbox Application to Set the IP Address 10 6 Contiguring the EZ Gateway 10 5.4.1 Using the Connections 12 6.1 Setting up the Connections 12 6.2 Creating Device Profiles 13 6.3 Importing a Device Profile 16 6.4 Mapping BACnet Output with Device EZ Profiles 17 6.5 Test and Communicating with the EZ Gateway over the Network 19 Appendix A.1. Communicating with the EZ Gateway over the Network 19 Appenendix A.1. Before Contactr	4	Installing the EZ Gateway	6
4.2 RS-485 Connections / 4.2.1 RS-485 Connection R1 Port. 7 4.2.2 RS-485 Connection R1 Port. 7 5 Operation 8 5.1 Power up the Device 8 5.2 Connect the PC to the EZ Gateway over the Ethernet Port. 8 5.3 Connecting to the EZ Gateway 9 5.3.1 Using the Toolbox Application to Discover and Connect to the EZ Gateway 9 5.3.2 Using Web Configurator GUI 9 5.4 Set IP Address of the EZ Gateway 10 5.4.1 Using the Toolbox Application to Set the IP Address 10 6 Configuring the EZ Gateway 12 6.1 Setting up the Connections 12 6.2 Creating Device EZ Profiles 13 6.3 Importing a Device Profile 16 6.3 Importing a Device Profile 16 6.4 Mapping BACnet Output with Device EZ Profiles 17 6.5 Test and Commission the EZ Gateway over the Network 19 Appendix A.1. Before Contacting Technical Support take a Diagnostic Capture 19 Appen	4	4.1 Mounting	6 _
4.2.1 RS-485 Connection R1 Port. 7 5 Operation 7 5 Operation 8 5.1 Power up the Device 8 5.2 Connect the PC to the EZ Gateway over the Ethernet Port. 8 5.3 Connecting to the EZ Gateway 9 5.3.1 Using the Toolbox Application to Discover and Connect to the EZ Gateway. 9 5.4 Set IP Address of the EZ Gateway 10 5.4.1 Using the Toolbox Application to Set the IP Address 10 6 Configuring the EZ Gateway 10 6.4 Setting up the Connections 12 6.1 Setting up the Connections 12 6.2 Creating Device EZ Profiles 13 6.2.1 DeviceProxy Advanced Settings 16 6.3 Importing a Device Profile 16 6.4 Mapping BACnet Output with Device EZ Profiles 17 7.5 Test and Commission the EZ Gateway over the Network 19 Appendix A.1. Communicating with the EZ Gateway over the Network 19 Appendix A.1. Before Contacting Technical Support take a Diagnostic Capture 19	•	4.2 RS-485 Connections	
4.2.2 RS-465 Connection RT Port		4.2.1 RS-485 Connection R2 Port.	
5 Operation 8 5.1 Power up the Device 8 5.2 Connect the PC to the EZ Gateway over the Ethernet Port 8 5.3 Connecting to the EZ Gateway 9 5.3.1 Using the Toolbox Application to Discover and Connect to the EZ Gateway 9 5.3.2 Using the Toolbox Application to Discover and Connect to the EZ Gateway 9 5.4 Set IP Address of the EZ Gateway 10 5.4.1 Using the Toolbox Application to Set the IP Address 10 6 Configuring the EZ Gateway 12 6.1 Setting up the Connections 12 6.2 Creating Device EZ Profiles 13 6.2.1 DeviceProxy Advanced Settings 16 6.3 Importing a Device Profile 16 6.4 Mapping BACnet Output with Device EZ Profiles 17 6.5 Test and Commission the EZ Gateway over the Network 19 Appendix A.1. Communicating with the EZ Gateway over the Network 19 Appendix A.1. Before Contacting Technical Support take a Diagnostic Capture 19 Appendix A.3. LED Functions 22 Appendix A.3. LED Functions 23<		4.2.2 RS-485 Connection RT Port	
5.1 Power up the Device 8 5.2 Connect the PC to the EZ Gateway over the Ethernet Port 8 5.3 Connecting to the EZ Gateway 9 5.3.1 Using the Toolbox Application to Discover and Connect to the EZ Gateway 9 5.3.2 Using the Toolbox Application to Discover and Connect to the EZ Gateway 9 5.4 Set IP Address of the EZ Gateway 10 5.4.1 Using the Toolbox Application to Set the IP Address 10 6 Configuring the EZ Gateway 12 6.1 Setting up the Connections 12 6.2 Creating Device EZ Profiles 13 6.2.1 Device Proxy Advanced Settings 16 6.3 Importing a Device Profile 16 6.4 Mapping BACnet Output with Device EZ Profiles 17 6.5 Test and Commission the EZ Gateway over the Network 19 Appendix A.1. Communicating with the EZ Gateway over the Network 19 Appendix A.1. Before Contacting Technical Support take a Diagnostic Capture 19 Appendix A.3. LED Functions 22 Appendix A.3. LED Functions 23 Appendix B.1. Specifications <td< td=""><td>5</td><td>Operation</td><td>8</td></td<>	5	Operation	8
5.2 Connect the PC to the EZ Gateway over the Ethernet Port. 8 5.3 Connecting to the EZ Gateway 9 5.3.1 Using the Toolbox Application to Discover and Connect to the EZ Gateway. 9 5.3.2 Using Web Configurator GUI 9 5.4 Set IP Address of the EZ Gateway. 10 5.4.1 Using the Toolbox Application to Set the IP Address 10 6 Configuring the EZ Gateway. 10 6.1 Setting up the Connections 12 6.2 Creating Device EZ Profiles 13 6.2.1 DeviceProxy Advanced Settings 16 6.3 Importing a Device Profile 16 6.4 Mapping BACnet Output with Device EZ Profiles 17 6.5 Test and Commission the EZ Gateway. 18 Appendix A Troubleshooting 19 Appendix A.1. Communicating with the EZ Gateway over the Network 19 Appendix A.1. Defore Contacting Technical Support take a Diagnostic Capture 19 Appendix A.2. Notes Regarding Subnets and Subnet Masks. 22 Appendix A.3. LED Functions 22 Appendix B.1. Specifications. 23 Ap	!	5.1 Power up the Device	8
5.3 Connecting to the EZ Gateway 9 5.3.1 Using the Toolbox Application to Discover and Connect to the EZ Gateway 9 5.3.2 Using Web Configurator GUI 9 5.4 Set IP Address of the EZ Gateway 10 5.4.1 Using the Toolbox Application to Set the IP Address 10 6 Configuring the EZ Gateway 12 6.1 Setting up the Connections 12 6.2 Creating Device EZ Profiles 13 6.2.1 DeviceProxy Advanced Settings 16 6.3 Importing a Device Profile 16 6.4 Mapping BACnet Output with Device EZ Profiles 17 6.5 Test and Commission the EZ Gateway 18 Appendix A Troubleshooting 19 Appendix A.1. Communicating with the EZ Gateway over the Network 19 Appendix A.2. Notes Regarding Subnets and Subnet Masks. 22 Appendix A.3. LED Functions 22 Appendix B Reference 23 Appendix B.1. Specifications. 23 Appendix B.1. Specifications. 24 Appendix B.3. Dimension Drawing FS-EZX-MOD-BAC 24		5.2 Connect the PC to the EZ Gateway over the Ethernet Port	8
5.3.1 Using the Toolbox Application to Discover and Connect to the EZ Gateway. 9 5.3.2 Using Web Configurator GUI 9 5.4 Set IP Address of the EZ Gateway. 10 5.4.1 Using the Toolbox Application to Set the IP Address 10 6 Configuring the EZ Gateway. 12 6.1 Setting up the Connections 12 6.2 Creating Device EZ Profiles 13 6.2.1 Device Proxy Advanced Settings 16 6.3 Importing a Device Profile 16 6.4 Mapping BACnet Output with Device EZ Profiles 17 6.5 Test and Commission the EZ Gateway 18 Appendix A Troubleshooting 19 Appendix A.1. Communicating with the EZ Gateway over the Network 19 Appendix A.2. Notes Regarding Subnets and Subnet Masks. 22 Appendix A.3. LED Functions 22 Appendix B Reference 23 Appendix B.1. Specifications 23 Appendix B.3. Dimension Drawing FS-EZX-MOD-BAC 24 Appendix B.3. Dimension Drawing FS-EZX-MOD-BAC 24 Limited 2 Year Warranty 25	:	5.3 Connecting to the EZ Gateway	9
5.3.2 Using Web Configurator GUI 9 5.4 Set IP Address of the EZ Gateway. 10 5.4.1 Using the Toolbox Application to Set the IP Address 10 6 Configuring the EZ Gateway 10 6.1 Setting up the Connections 12 6.2 Creating Device EZ Profiles 13 6.2.1 DeviceProxy Advanced Settings 16 6.3 Importing a Device Profile 16 6.4 Mapping BACnet Output with Device EZ Profiles 17 6.5 Test and Commission the EZ Gateway 18 Appendix A Troubleshooting 19 Appendix A.1. Communicating with the EZ Gateway over the Network 19 Appendix A.2. Notes Regarding Subnets and Subnet Masks. 22 Appendix B.1. Specifications 23 Appendix B.1. Specifications 23 Appendix B.2. Compliance with UL Regulations 24 Appendix B.3. Dimension Drawing FS-EZX-MOD-BAC 24 Limited 2 Year Warranty 25		5.3.1 Using the Toolbox Application to Discover and Connect to the EZ Gateway	9
5.4 Set IP Address of the EZ Gateway		5.3.2 Using Web Configurator GUI	9
5.4.1 Using the Toolbox Application to Set the IP Address 10 6 Configuring the EZ Gateway 12 6.1 Setting up the Connections 12 6.2 Creating Device EZ Profiles 13 6.2.1 DeviceProxy Advanced Settings 16 6.3 Importing a Device Profile 16 6.4 Mapping BACnet Output with Device EZ Profiles 17 6.5 Test and Commission the EZ Gateway 18 Appendix A Troubleshooting 19 Appendix A.1. Communicating with the EZ Gateway over the Network 19 Appendix A.2. Notes Regarding Subnets and Subnet Masks 22 Appendix A.3. LED Functions 22 Appendix B.1. Specifications 23 Appendix B.1. Specifications 23 Appendix B.2. Compliance with UL Regulations 24 Appendix B.3. Dimension Drawing FS-EZX-MOD-BAC 24 Limited 2 Year Warranty 25		5.4 Set IP Address of the EZ Gateway	
6 Configuring the EZ Gateway 12 6.1 Setting up the Connections 12 6.2 Creating Device EZ Profiles 13 6.2.1 DeviceProxy Advanced Settings 16 6.3 Importing a Device Profile 16 6.4 Mapping BACnet Output with Device EZ Profiles 17 6.5 Test and Commission the EZ Gateway 18 Appendix A Troubleshooting 19 Appendix A.1. Communicating with the EZ Gateway over the Network 19 Appendix A.1. Before Contacting Technical Support take a Diagnostic Capture 19 Appendix A.3. LED Functions 22 Appendix B.3. EED Functions 23 Appendix B.1. Specifications 23 Appendix B.2. Compliance with UL Regulations 24 Appendix B.3. Dimension Drawing FS-EZX-MOD-BAC 24 Limited 2 Year Warranty 25		5.4.1 Using the Toolbox Application to Set the IP Address	
6.1 Setting up the Connections 12 6.2 Creating Device EZ Profiles 13 6.2.1 DeviceProxy Advanced Settings 16 6.3 Importing a Device Profile 16 6.4 Mapping BACnet Output with Device EZ Profiles 17 6.5 Test and Commission the EZ Gateway 18 Appendix A Troubleshooting 19 Appendix A.1. Communicating with the EZ Gateway over the Network 19 Appendix A.1. Before Contacting Technical Support take a Diagnostic Capture 19 Appendix A.2. Notes Regarding Subnets and Subnet Masks 22 Appendix B Reference 23 Appendix B.1. Specifications 23 Appendix B.2. Compliance with UL Regulations 24 Appendix B.3. Dimension Drawing FS-EZX-MOD-BAC 24 Limited 2 Year Warranty 25	6	Configuring the EZ Gateway	12
6.2 Creating Device EZ Profiles 13 6.2.1 DeviceProxy Advanced Settings 16 6.3 Importing a Device Profile 16 6.4 Mapping BACnet Output with Device EZ Profiles 17 6.5 Test and Commission the EZ Gateway 18 Appendix A Troubleshooting 19 Appendix A.1. Communicating with the EZ Gateway over the Network 19 Appendix A.1. Before Contacting Technical Support take a Diagnostic Capture 19 Appendix A.2. Notes Regarding Subnets and Subnet Masks 22 Appendix B Reference 23 Appendix B.1. Specifications 23 Appendix B.2. Compliance with UL Regulations 24 Appendix B.3. Dimension Drawing FS-EZX-MOD-BAC 24 Limited 2 Year Warranty 25	(6.1 Setting up the Connections	12
6.2.1 DeviceProxy Advanced Settings 16 6.3 Importing a Device Profile 16 6.4 Mapping BACnet Output with Device EZ Profiles 17 6.5 Test and Commission the EZ Gateway 18 Appendix A Troubleshooting 19 Appendix A.1. Communicating with the EZ Gateway over the Network 19 Appendix A.1. Before Contacting Technical Support take a Diagnostic Capture 19 Appendix A.2. Notes Regarding Subnets and Subnet Masks 22 Appendix B.3. LED Functions 22 Appendix B.1. Specifications 23 Appendix B.2. Compliance with UL Regulations 23 Appendix B.3. Dimension Drawing FS-EZX-MOD-BAC 24 Limited 2 Year Warranty 25	(6.2 Creating Device EZ Profiles	13
6.3 Importing a Device Profile 16 6.4 Mapping BACnet Output with Device EZ Profiles 17 6.5 Test and Commission the EZ Gateway 18 Appendix A Troubleshooting 19 Appendix A.1. Communicating with the EZ Gateway over the Network 19 Appendix A.1. Before Contacting Technical Support take a Diagnostic Capture 19 Appendix A.2. Notes Regarding Subnets and Subnet Masks 22 Appendix A.3. LED Functions 22 Appendix B.1. Specifications 23 Appendix B.2. Compliance with UL Regulations 24 Appendix B.3. Dimension Drawing FS-EZX-MOD-BAC 24 Limited 2 Year Warranty 25		6.2.1 DeviceProxy Advanced Settings	16
6.4 Mapping BACnet Output with Device EZ Profiles 17 6.5 Test and Commission the EZ Gateway 18 Appendix A Troubleshooting. 19 Appendix A.1. Communicating with the EZ Gateway over the Network 19 Appendix A.1. Before Contacting Technical Support take a Diagnostic Capture 19 Appendix A.2. Notes Regarding Subnets and Subnet Masks. 22 Appendix A.3. LED Functions 22 Appendix B Reference. 23 Appendix B.1. Specifications. 23 Appendix B.2. Compliance with UL Regulations. 24 Appendix B.3. Dimension Drawing FS-EZX-MOD-BAC 24 Limited 2 Year Warranty. 25	(6.3 Importing a Device Profile	
6.5 Test and Commission the EZ Gateway 18 Appendix A Troubleshooting. 19 Appendix A.1. Communicating with the EZ Gateway over the Network 19 Appendix A.1. Before Contacting Technical Support take a Diagnostic Capture 19 Appendix A.2. Notes Regarding Subnets and Subnet Masks. 22 Appendix A.3. LED Functions 22 Appendix B Reference. 23 Appendix B.1. Specifications. 23 Appendix B.2. Compliance with UL Regulations. 24 Appendix B.3. Dimension Drawing FS-EZX-MOD-BAC 24 Limited 2 Year Warranty. 25	(6.4 Mapping BACnet Output with Device EZ Profiles	
Appendix A Troubleshooting.19Appendix A.1. Communicating with the EZ Gateway over the Network19Appendix A.1. Before Contacting Technical Support take a Diagnostic Capture19Appendix A.2. Notes Regarding Subnets and Subnet Masks.22Appendix A.3. LED Functions22Appendix B Reference.23Appendix B.1. Specifications.23Appendix B.2. Compliance with UL Regulations24Appendix B.3. Dimension Drawing FS-EZX-MOD-BAC24Limited 2 Year Warranty.25	(6.5 Test and Commission the EZ Gateway	18
Appendix A.1. Communicating with the EZ Gateway over the Network 19 Appendix A.1. Before Contacting Technical Support take a Diagnostic Capture 19 Appendix A.2. Notes Regarding Subnets and Subnet Masks 22 Appendix A.3. LED Functions 22 Appendix B Reference 23 Appendix B.1. Specifications 23 Appendix B.2. Compliance with UL Regulations 24 Appendix B.3. Dimension Drawing FS-EZX-MOD-BAC 24 Limited 2 Year Warranty 25	Ap	opendix A Troubleshooting	19
Appendix A.1. Before Contacting Technical Support take a Diagnostic Capture 19 Appendix A.2. Notes Regarding Subnets and Subnet Masks 22 Appendix A.3. LED Functions 22 Appendix B Reference 23 Appendix B.1. Specifications 23 Appendix B.2. Compliance with UL Regulations 24 Appendix B.3. Dimension Drawing FS-EZX-MOD-BAC 24 Limited 2 Year Warranty 25		Appendix A.1. Communicating with the EZ Gateway over the Network	19
Appendix A.2. Notes Regarding Subnets and Subnet Masks 22 Appendix A.3. LED Functions 22 Appendix B Reference 23 Appendix B.1. Specifications 23 Appendix B.2. Compliance with UL Regulations 24 Appendix B.3. Dimension Drawing FS-EZX-MOD-BAC 24 Limited 2 Year Warranty 25		Appendix A.1. Before Contacting Technical Support take a Diagnostic Capture	19
Appendix A.3. LED Functions 22 Appendix B Reference 23 Appendix B.1. Specifications 23 Appendix B.2. Compliance with UL Regulations 24 Appendix B.3. Dimension Drawing FS-EZX-MOD-BAC 24 Limited 2 Year Warranty 25		Appendix A.2. Notes Regarding Subnets and Subnet Masks	22
Appendix B Reference 23 Appendix B.1. Specifications 23 Appendix B.2. Compliance with UL Regulations 24 Appendix B.3. Dimension Drawing FS-EZX-MOD-BAC 24 Limited 2 Year Warranty 25	1	Appendix A.3. LED Functions	22
Appendix B.1. Specifications	Ap	opendix B Reference	23
Appendix B.2. Compliance with UL Regulations		- Appendix B.1. Specifications	23
Appendix B.3. Dimension Drawing FS-EZX-MOD-BAC		Appendix B.2. Compliance with UL Regulations	24
Limited 2 Year Warranty		Appendix B.3. Dimension Drawing FS-EZX-MOD-BAC	24
	Lir	mited 2 Year Warranty	25



LIST OF FIGURES

Figure 1: R2 Port connection	7
Figure 2: R1 Port connection	7
Figure 3: Power Connection	8
Figure 4: Ethernet Port	8
Figure 5: Landing Page	9
Figure 6: Connections Page	12
Figure 7: Device Profiles Page	13
Figure 8: Edit Profile Window	13
Figure 9: Data Map Window	13
Figure 10: Mapping BACnet Addresses to Modbus Registers	14
Figure 11: State Table Window	14
Figure 12: Notification Class Window	15
Figure 13: Define EZ Profiles	15
Figure 14: Export Profile	15
Figure 15: Advanced Window	16
Figure 16: Importing Device Profile	16
Figure 17: Choose Profile to Load	17
Figure 18: Mapping with Device EZ Profiles	17
Figure 19: FS-GUI Connections Screen	18
Figure 20: Ethernet Port Location	19
Figure 21: LED allocation	22
Figure 22: EZ Gateway Dimension Drawing	24



ABOUT THE EZ GATEWAY

EZ Gateway is a high performance, cost effective Building and Industrial Automation multi-protocol gateway providing protocol translation between serial and Ethernet, devices and networks.

NOTE: For FieldPoP[™] information, refer to the FieldPoP[™] Device Cloud Start-up Guide online at the Sierra Monitor.com Resource Center.

www.sierramonitor.com/customer-care/resource-center

2 CERTIFICATION

2.1 BTL Mark – BACnet Testing Laboratory¹



The BTL Mark on EZ Gateway is a symbol that indicates that a product has passed a series of rigorous tests conducted by an independent laboratory which verifies that the product correctly implements the BACnet features claimed in the listing. The mark is a symbol of a high-quality BACnet product.

Go to <u>http://www.BACnetInternational.net/btl/</u> for more information about the BACnet Testing Laboratory. Click here for <u>BACnet PIC Statement.</u>

3 SUPPLIED EQUIPMENT

EZ Gateway

- Preloaded with the Modbus and BACnet drivers.
- All instruction manuals, driver manuals, configuration manuals and support utilities are available on the USB drive provided in the optional accessory kit, or on-line at http://www.sierramonitor.com/customer-care/resource-center?filters=software-downloads

Accessory Kit (Optional) (Part # FS-8915-36-QS) including:

- 7-ft CAT5 cable with RJ45 connectors at both ends
- Power Supply -110/220V (p/n 69196)
- DIN Rail mounting bracket
- Screwdriver for connecting to terminals
- USB Flash drive loaded with:
 - Modbus to BACnet Start-up Guide
 - FieldServer Configuration Manual
 - FieldServer Utilities Manual
 - o All FieldServer Driver Manuals
 - o Support Utilities
 - Any additional folders related to special files configured for a specific EZ Gateway
 - o Additional components as required See Driver Manual Supplement for details



¹BACnet is a registered trademark of ASHRAE.



4 INSTALLING THE EZ GATEWAY

4.1 Mounting

The following mounting options are available:

- Product comes with tabs for wall or surface mount. These can be snapped off if not required.
- DIN Rail Mounting Bracket included in the Accessory Kit or ordered separately (Part # FS-8915-35-QS).



NOTE: For dimension details see Appendix B.3.



4.2 RS-485 Connections

4.2.1 RS-485 Connection R2 Port

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

4.2.2 RS-485 Connection R1 Port

Connect to the 3-pin connector as shown.

RS 485 GND RS 485 - RS 485+ RS 485+ RS 485+ RS 485+ RS 485+ RS 485+ RS 485 RS 485 RS 485 RS 485 RS 485 RS 485 - RS - RS - RS - RS - RS - RS - RS - RS	+ - GND
Figure 2: R	1 Port connection

The following Baud Rates are supported on the R1 Port: 4800, 9600, 19200, 38400, 57600, 115200



5 OPERATION

5.1 Power up the Device

Apply power to the device. Ensure that the power supply used complies with the specifications provided in **Section Appendix B.1**. Ensure that the cable is grounded using the "Frame GND" terminal. The EZ Gateway requires a power supply that provides 9-30VDC or 12-24VAC.



5.2 Connect the PC to the EZ Gateway over the Ethernet Port



- Connect an Ethernet cable between the PC and EZ Gateway or connect the EZ Gateway and the PC to the Hub/switch using a straight CAT5 cable.
- The Default IP Address of the EZ Gateway is **192.168.2.101**, Subnet Mask is **255.255.255.0**.
- Virus protection and firewall software should temporarily be disabled if connection problems are experienced.



5.3 Connecting to the EZ Gateway

- 5.3.1 Using the Toolbox Application to Discover and Connect to the EZ Gateway
 - Install the Toolbox application from the USB drive or get it from the Sierra Monitor website. http://www.sierramonitor.com/customer-care/resource-center?filters=software-downloads
 - Use the Toolbox application to find the EZ Gateway, and launch the Web Configurator GUI.
- **NOTE:** If the connect button is greyed out, the EZ Gateway's IP Address must be set to be on the same network as the PC. (Section 5.3.2)

FieldServer Toolbox						
FieldServer	Toolbo	x			S	Sierra monitor
DEVICES	÷	IP ADDRESS	MAC ADDRESS	FAVORITE	CONNECTIVITY	
DCC285 QS.CSV v4.10b		192.168.2.135	00:50:4E:01:02:03	*	•	Connect 💭 A
						15

5.3.2 Using Web Configurator GUI

- Open a web browser and connect to the EZ Gateway's Default IP Address. The Default IP Address of the BACnet Router is **192.168.2.101**, Subnet Mask is **255.255.255.0**.
- If the PC and the EZ Gateway are on different IP Networks, assign a Static IP Address to the PC on the 192.168.2.X network.

← → C □ 64.60.250.231/app/	config_modbus_ba	acnet/config_n	nodbus_bacnet.htm#/	settings/gateway			* =
SMC Sierra Settings	Diagnostics	About			FieldServer EZ	Gateway Modbu	us to BACnet
Sections Egateway	Gen	eral EZ Gateway Mod	bus to BA			Controls	Defaults
Econnections DeviceProxy™ EDevice Profiles	Net	work				Save	Restart
	IP Addre Netmasi Default (DHCP C	ess K Gateway Client	192.168.3.17 255.255.255.0 192.168.3.1]]]		Status Gateway is online	
	DHCP S Domain Domain	ierver Name Server 1 Name Server 2	0.0.0.0]		Log 07:53:53: Loaded Set	lings
	Passwo	rds	Figure 5: L	anding Pa	ge	Clear Log	



5.4 Set IP Address of the EZ Gateway

5.4.1 Using the Toolbox Application to Set the IP Address

• From the Toolbox main page, click on the setup button (gear icon).

Grs FieldServer Toolbox						
FieldServer	Toolbox				S	M G Sierra M M M M M M M M M M
DEVICES	•	IP ADDRESS	MAC ADDRESS	FAVORITE	CONNECTIVITY	
DCC285 QS.CSV v4.10b		192.168.2.135	00:50:4E:01:02:03	*	•	Connect
						11

• Select Network Settings.

Gra FieldServer Toolbox			
FieldServer	Toolbox	Configure Device	SMCsierra monitor
DEVICES	IP ADDRESS	Configure Device	CONNECTIVITY
DCC285 QS.CSV v4.10b	192.168.2.135	DCC285 QS.CSV v4.10b 192.168.2.135 Network Settings Restart Device File Transfer Set Device Time Close	Connect

- Modify the IP Address (N1 IP Address field) of the EZ Gateway Ethernet port.
- If necessary, change the Netmask (N1 Netmask field).
- Type in a new Subnet Mask.
- If necessary, change the IP Gateway (Default Gateway field).
- Type in a new IP Gateway.
- **NOTE:** If the EZ Gateway is connected to a router, the IP Gateway of the EZ Gateway should be set to the IP Address of the connected router.



• Click Update IP Settings, then click on the Change and Restart to restart the Gateway and activate the new IP Address.

NOTE: If the Web Configurator GUI was open in a browser, the browser will need to be pointed to the new IP Address of the EZ Gateway before the GUI will be accessible again.

🕞 FieldServer Toolbox		
FieldServer Toolbox	Gn Configure Device	SMGsierra
DEVICES 🛨 IP ADDRESS	Configure Device	CONNECTIVITY
DCC285 QS.CSV v4.10b 192.168.2.135	DCC285 QS.CSV v4.10b 192.168.2.135 Image: Constraint of the second se	Connect 🗭 🛧



6 CONFIGURING THE EZ GATEWAY

6.1 Setting up the Connections

• The Connections Page is used to setup the connection ports and parameters.

← → C 🗋 64.60.250.231/	/app/config_modbus_b	acnet/config_modbus_bacnet.htm#/settings	/gateway/connections				* =
SMC ^{sierra} Sett	ngs Diagnostics	About				FieldServer E	Z Gateway Modbus to BACnet
Sections Gateway Connections Device Profiles	RES Diagnostics MO Part Baud P Part Data B Stop B Pol D Crustio Fert Baud R Pol D Crustio Stop B Pol D	About dbus RTU Connection 1	Modbus TCP C Enable Adapter Poli Delay Max Concurrent Messages BACnet IP Corr Enable Adapter # Port Unitic IP Address Public IP Port Broadcast Distribution Table	Connection	BACnet MST Enable Port Bauc Rate Party Data Bits Bitop Bits Mode Max Master Max Info Farmes MAC Address Virtual Network Number BACnet MST Enable Port Bauc Rate Party Data Bits Stop Bits Mode Max Mo Farmes Max No Farmes Max No Farmes	FieldServer B P Connection 1 R1 38400 • • 8 • • 1 • • 1 • • 7 • • P Connection 2 • P Connection 2 • • • • • • • • • • • • •	EZ Gateway Modbus to BACnet
			Figure 6: Co	onnections	Virtual Network Number	8	

• Click the Save button in the Controls Section once completed.



6.2 Creating Device EZ Profiles

• Click on the fields under Profile Name to enter the name of the EZ Profiles.

← → C 🗋 64.60.250.2	231/app/config_modbus_t	acnet/config_modbus_bacnet.htm#/settings/gateway/profiles	*
SMC ^{sierra} s	ettings Diagnostics	About	FieldServer EZ Gateway Modbus to BACnet
Sections	Device F	Profiles	Controls
I≣ Gateway I≣ Connections I≣ DeviceProxy™ I≣ Device Profiles	Profile Name New_Profile New_Profile Add •		Relad Defaute Save Restart
	First Pre	fous 1 Next Last	Gateway is online
			Log 12:13:22: Loaded Settings Clear Log
		Figure 7: Device Profile	es Page

- Click on the Edit button (pencil icon) next to the name.
- Choose the Modbus addressing parameters.

	Figure 8: Edit Profile Window	
H C		
Enable COV		
BACnet		
Write Length	1 •	
Enable Write Multiple		
Modbus Address Type	Modiroo F Dinit	
Device Settings	Data Map State Tables Notification Classes	
Edit Profile		

• Click on the Data Map tab and add the first Modbus address range.

dit Profile						
Device Settings Data Map	State Tables	Notification Classes				
Address	Data Type	Function	Length	Scan Interval	Signed Value	
0	Holding Register	Read Continuously	1] [1		â
7.00						
First Previous 1 Next La	ist					
First Previous 1 Next La	st					



• Click on the blue plus sign icon on the left side of the Address to map the BACnet Addresses to the Modbus Registers.

	Data Type		Function	Length	Scan Interval	Signed Value	
40100	Holding Regist	er 🔻	Read Continuously	6	1		â
40101	32-Bit Register	•	Write Continuously	5	2		T
Address Offset	Object Instance	Object Name	Object Type	Units	Description	Advanced	
1	1	Cevice 1	Analog Input	• -	¥ -		Ê
2	2	Device 2	Analog Value	•	۰ .		(î î
3	3	Cevice 3	Binary Value	•	*] -		Û
Add							
First Previous 1	Next Last						
A-14							
Add							
Add First Previous 1	Next Last						

- Repeat for all of the Modbus registers.
- If using a BACnet State Table, click on the "State Table" tab to define the table and its variables.

Table Name			
New_Table			i i i i i i i i i i i i i i i i i i i
State Value	State Text	State Class	
1	State 1	Normal	
1	\$ State 2	Specify the stat	e class
3	\$ State 3	Fault	
First Previous Add First Previous C	1 Next Last		



• To define a Notification Class, click the "Notification Class" tab and define the parameters as needed.

Device Settings	Data Map State T	ables Notification C	lasses				
Object Name	Object Type	Object Instance	Ack Required	Off Normal Priority	Fault Priority	Normal Priority	
New_Notification	Notification Class	1	Yes	90	100	110	
First Previous 1	Next Last						

• Once all mappings and settings are defined, click the "Save" button to record the Profile.

Device Settings	Data Map	State Tables	Notification Classes
Table Name			
New_Table			â
State Value	State Text	State Class	
1	State 1	Normal	
1	\$ State 2	Specify the stat	e class
3	\$ State 3	Fault	
First Previous Add First Previous	1NextLast1NextLast		
First Previous Add First Previous C e are unsaved se	1 Next Last 1 Next Last		

• The profile can be exported for backup or future use by hitting the Export Profile button (harddrive icon).

← → C □ 64.60.250.231/	app/config_modbus_	bacnet/config_modbus_bacnet.htm#/settings/gateway/profiles	*
SMC Sierra Settin	ngs Diagnostics	About	FieldServer EZ Gateway Modbus to BACnet
Sections III dateway III connections III Device Profiles Device Profiles	Protile Name New_Protile New_Protile Add • First Pre	Profiles	Controls Record Defaults Save Restart Status Gateway is online Log
		Figure 14: Exp	12 13 22 Loaded Settings

• The profile downloads to the local computer in the format: < Profile Name>.profile



6.2.1 DeviceProxy Advanced Settings

• If required, click the Advanced Settings button (eye icon) to enter the Device Description and Device Location. (Figure 15)

Advanced		×
BACnet Sp Device Descrip	ecify the BACnet device object's Location operty	
Device Location	San Jose	
✓		
Figure	15: Advanced Window	

6.3 Importing a Device Profile

• Profiles on the local computer can be imported to the EZ Gateway by going to the Device Proxy section and hitting the arrow to the right of the Add button.

Device Settings Data M	ap State Tables Noti	fication Classes				
Address	Data Type	Function	Length	Scan Interval	Signed Value	
D 1	Holding Register	Read Continuously	▼ [1	1		
First Previous 1 Next	Last					
1 0						

NOTE: All profiles will need to be created or imported to the EZ Gateway before proceeding.



6.4 Mapping BACnet Output with Device EZ Profiles

- Click on the DeviceProxy[™] button.
- Choose the EZ Profile to load from the drop down.

← → C 🗋 64.60.250.231/app/co	onfig_modbus_bacnet/config_	modbus_bacnet.h	tm#/settings/gate	eway/loader							* 3
SMC Settings	Diagnostics About								Field	Server EZ	Gateway Modbus to BACnet
Sections	DeviceProxy	TM									Controls
I≣ Gateway	Device Profile	Modbus Connection	BACnet Connection	Modbus Node ID	Modbus Node IP Address	Modbus Node IP Port	BACnet Device Instance	BACnet Device Name	Advanced		Reload
≣DeviceProxy™	New_Profile •	R1 (Modbus RTL 🔹	N1 (BACnet IP) 🔹	1		502	655555	MPAC1000		(B)	Save Restart
EDevice Profiles	Add										
	First Previous	t Next Last									Status
											Gateway is online
											Log
											10.03.44 Loaded Settings
											Clear Log
			Fig	ure 17:	Choos	e Profile	e to Loa	ıd			

- Choose the appropriate Connection and Node ID for both the incoming Modbus device and the mapped BACnet output.
- Click Add to include the device profile in the Configuration.
- Repeat for all Modbus Devices intended to connect to the EZ Gateway.
- Click the Save button in the Controls Section once completed adding all device EZ Profiles.

← ⇒ C [] 64.60.250.231/app/	config_modbus_b	acnet/config_modbus_bacnet.htm#/settings/gateway/profiles	* Ξ
Settings	Diagnostics	About	FieldServer EZ Gateway Modbus to BACnet
Sections Gateway Connections DeviceProxy [™] Device Profiles	Profile Name New_Profile New_Profile Add T	ious 1 Next Last	Controls Reload Defaults Save Restart Status Gateway is online
		Figure 18: Mapping with E	Log 12:13:22: Loaded Settings ClearLog



6.5 Test and Commission the EZ Gateway

- Connect the EZ Gateway to the third party device(s), and test the application.
- Click on the Diagnostic button to view to get to Diagnostic screen.
- From the main menu of FS-GUI click on View, then Connections to see the number of messages on each protocol.

64.60.250.231/htm/fsgui.htm#40_OID						
SMC						
Navigation	Connections					
EZ Gateway Modbus to BACnet About Setup	Overview					
View	Connections					0
V Connections	Index Name	Tx Msg	Rx Msg	Tx Char	Rx Char	Errors
* R1 - MODBUS_RTU	0 R1 - MODBUS_RTU	5,390	0	43,120	0	5,389
 N1 - Modbus/TCP 	1 N1 - Modbus/TCP	0	2	0	22	4
 N1 - BACnet_IP 	2 NI - BACRet_IP	3	23	42	298	3
 R2 - BACnet_MSTP 	3 R2 - BACIEL_MSTP	0	0	U	0	0
> Data Arrays						
> Nodes						
> Map Descriptors						
 User Messages 						
Home HELP (F1) Contact Us	Reset Statistics					
	Figure 19:	FS-GUI Con	nections Sci	reen		

NOTE: For troubleshooting assistance refer to **Appendix A**, or any of the troubleshooting appendices in the related driver supplements and Configuration Manual. Sierra Monitor Corporation also offers a technical support page on the Sierra Monitor Corporation website at <u>www.sierramonitor.com</u>, which contains a significant number of resources and documentation that may be of assistance.



Appendix A Troubleshooting

Appendix A.1. Communicating with the EZ Gateway over the Network

- Confirm that the network cabling is correct.
- Confirm that the computer network card is operational and correctly configured.
- Confirm that there is an Ethernet adapter installed in the PC's Device Manager List, and that it is configured to run the TCP/IP protocol.
- Check that the IP netmask of the PC matches the EZ Gateway. The Default IP Address of the EZ Gateway is 192.168.2.X, Subnet Mask is 255.255.255.0.
 - Go to Start|Run
 - Type in "ipconfig"
 - The account settings should be displayed
 - o Ensure that the IP Address is 102.168.2.X and the netmask 255.255.255.0
- Ensure that the PC and EZ Gateway are on the same IP Network, or assign a Static IP Address to the PC on the 192.168.2.X network.
- If using Windows XP or later, ensure that the firewall is disabled.

Appendix A.1. Before Contacting Technical Support take a Diagnostic Capture

When a problem occurs that cannot be resolved with regular troubleshooting, take a log via the FieldServer Toolbox. Send this log together with a detailed description of the problem to <u>support@sierramonitor.com</u> for evaluation. The Diagnostic Capture will allow us to rapidly diagnose the problem.

- **NOTE:** While all necessary documentation is shipped with the FieldServer on the USB flash drive, these documents are constantly being updated. Newer versions may be available on the web at http://www.sierramonitor.com/customer-care/resource-center.
 - Ensure that FieldServer Toolbox is Loaded on the PC that is currently being used, or download FieldServer-Toolbox.zip on the Sierra Monitor Corporation webpage, under Customer Care-Resource Center, Software Downloads: http://www.sierramonitor.com/customer-care/resource-center?filters=software-downloads

 - Extract the executable file and complete the installation.





- Disable firewall and virus protection software if possible.
- Connect a standard CAT5 Ethernet cable between the PC and ProtoNode.
- Double click on the FS Toolbox Utility.
- Step 1: Take a Log
 - \circ Click on the diagnose icon of the desired device



o Select full Diagnostic

Setup Hep DEVICES Image: Connect Diagnostics ProtoNode Device Diagnostics ProtoNode 192.168.3.110 Diagnostic Test Full Diagnostic Stat Diagnostic Image: Connect Diagnostic Image: Connect Diagnostic	Setup Hep DEVICES ProtoNode Diagnostic Test Set capture peric Serial Capture Fill Diagnostic I' Timestamp each character Enable Message logging Show advanced options Close	FieldServer Too	lbox	SMGierra
ProtoNode	ProtoNode Device Diagnostics ProtoNode 192.168.3.110 Diagnostic Test Full Diagnostic Set capture perit Serial Capture Full Diagnostic Immediate ach character Enable Message logging Show advanced options Start Diagnostic Open Containing Folder Close	DEVICES +	Device Diagnostics	FAVORITE CONNECTIVITY
ProtoNade 192.168.3.110 Diagnostic Test Full Diagnostic State Shot State Shot Set capture perificience Full Diagnostic If Timestamp each character Enable Message logging Show advanced options Start Diagnostic Open Containing Folder Close	Protoklode 192.168.3.110 Diagnostic Test Full Diagnostic Set capture performance Full Diagnostic Image: Timestamp each character Enable Message logging Show advanced options Start Diagnostic Open Containing Folder Close	ProtoNode	Device Diagnostics	* • Connect
Diagnostic Test Ful Diagnostic Snap Shot Set capture perk Serial Capture Timestamp each character Enable Message logging Show advanced options Start Diagnostic Open Containing Folder Close	Diagnostic Test Full Diagnostic Snap Shot Set capture peri Serial Capture Full Diagnostic Timestamp each character Enable Message logging Show advanced options Start Diagnostic Open Containing Folder Close		ProtoNode 192.168.3.110	1 1 0 Control 9
Start Diagnostic Open Containing Folder Close	Start Diagnostic Open Containing Folder Close		Diagnostic Test Ful Diagnostic Snap Shot Set capture peri (Serial Capture Ful Diagnostic Timestamp each character Enable Message logging Show advanced options	
Open Containing Folder Close	Open Containing Folder Close		Start Diagnostic	
			Open Containing Folder Close	



NOTE: If desired, the default capture period can be changed.

o Click on "Start Diagnostic"

^{smc} FieldServer Toolbox			
FieldServer Toolb	xox	S	Sierra
DEVICES +	smc Device Diagnostics	FAVORITE CONNECTIVITY	
ProtoNode	Device Diagnostics	* •	Connect
	ProtoNode 192.168.3.110 Diagnostic Set capture period 0:05:00 + Image: Timestamp each character Enable Message logging Show advanced options Start Diagnostic Open Containing Folder Close		

- \circ $\;$ Wait for Capture period to finish, then the Diagnostic Test Complete window will appear
- Step 2: Send Log
 - o Once the Diagnostic test is complete, a .zip file will be saved on the PC

ieldServer Toolbo	x							
FieldServ	er Toolb	ox				9	50	sierra monito
DEVICES	- Cip	5mc Device Diagnostics		23	EAVORITE	CONNECTIVITY		
ProtoNode		Device Diagnostics			*			Connect
		ProtoNode	192.168.3.110					
		Discussion Tarth (Fr	II Diamanka					
	^{smc} Diagnost	ic Test Complete		×				
	D	o you want to open the co	ntaining folder?	n Cancel				
			Start Diagnostic					
			Close					

- \circ $\,$ Choose "Open" to launch explorer and have it point directly at the correct folder $\,$
- Send the Diagnostic zip file to <u>support@sierramonitor.com</u>

```
        Image: Diagnostic_2014-07-17_20-15.zip
        2014/07/17 20:16
        zip Archive
        676 KB
```



Appendix A.2. Notes Regarding Subnets and Subnet Masks

RFC standards allocate the IP Address range of 192.0.0.0 through to 223.255.255.255 to be used in Class-C subnetting (Subnets listed as 255.255.255.xxx, where xxx can vary based on filtering required).

Consequently, the IP stack for this product will not allow any IP Addresses in this range to be allocated a subnet that does not fall within the Class C range.

Appendix A.3. LED Functions



Light	Description
SPL	SPL LED will be on when a configured node in the EZ Gateway is detected as being offline. For
	details, check the FS-GUI Node overview screen in FS-GUI (click "View" then "Nodes").
RUN	RUN LED will flash 20 seconds after power up, signifying normal operation. The EZ Gateway
	will be able to access the Web Configurator GUI (Section 5.3) 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 FS-GUI User Messages error screen
	to technical support 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.
ТΧ	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.



Appendix B Reference

Appendix B.1. Specifications²





CE

	FS-EZX-MOD-BAC					
	One 6-pin Phoenix connector with: RS-485 port (+ / - / gnd)					
Available Ports	Power port (+ / - / Frame-gnd)					
Available Ports	One 3-pin Phoenix connector with: RS-485 port (+ / - / gnd)					
	One Ethernet 10/100 BaseT port					
	Input Voltage: 9-30VDC or 12-24VAC					
Power Pequiremente	Input Power Frequency 50/60 Hz.					
Fower Requirements	Power Rating: 2.5 Watts					
	Current draw @ 12V, 150 mA					
	TUV approved to UL 916 Standard					
	RoHS Compliant					
Approvals	FCC Part 15 Compliant					
	CE Mark					
	BTL Mark					
Surge Suppression						
EN61000-4-2 ESD EN610	000-4-3 EMC EN61000-4-4 EFT					
Physical Dimensions (excluding the external power supply)						
(WxDxH)	5.05 x 2.91 x 1.6 in. (12.82 x 7.39 x 4.06 cm) excluding mounting tabs					
Weight	0.4 lbs (0.2 Kg)					
Environment						
Operating Temperature:	-40°C to 75°C (-40°F to167°F)					
Humidity:	5 - 90% RH (non-condensing)					

"This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference
- This device must accept any interference received, including interference that may cause undesired operation.
- **NOTE:** This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his expense.

Modifications not expressly approved by Sierra Monitor could void the user's authority to operate the equipment under FCC rules".

² Specifications subject to change without notice.



Appendix B.2. Compliance with UL Regulations

For UL compliance, the following instructions must be met when operating the EZ Gateway.

- The units shall be powered by listed LPS or Class 2 power supply suited to the expected operating temperature range.
 - The interconnecting power connector and power cable shall:
 - Comply with local electrical code
 - Be suited to the expected operating temperature range
 - Meet the current and voltage rating for the EZ Gateway
- Furthermore, the interconnecting power cable shall:
 - Be of length not exceeding 3.05m (118.3")
 - Be constructed of materials rated VW-1, FT-1 or better
- If the unit is to be installed in an operating environment with a temperature above 65 °C, it should be installed in a Restricted Access Area requiring a key or a special tool to gain access.
- This device must not be connected to a LAN segment with outdoor wiring.

Appendix B.3. Dimension Drawing FS-EZX-MOD-BAC





Limited 2 Year Warranty

Sierra Monitor Corporation warrants its products to be free from defects in workmanship or material under normal use and service for two years after date of shipment. Sierra Monitor Corporation will repair or replace any equipment found to be defective during the warranty period. Final determination of the nature and responsibility for defective or damaged equipment will be made by Sierra Monitor Corporation personnel.

All warranties hereunder are contingent upon proper use in the application for which the product was intended and do not cover products which have been modified or repaired without Sierra Monitor Corporation's approval or which have been subjected to accident, improper maintenance, installation or application, or on which original identification marks have been removed or altered. This Limited Warranty also will not apply to interconnecting cables or wires, consumables or to any damage resulting from battery leakage.

In all cases Sierra Monitor Corporation's responsibility and liability under this warranty shall be limited to the cost of the equipment. The purchaser must obtain shipping instructions for the prepaid return of any item under this warranty provision and compliance with such instruction shall be a condition of this warranty.

Except for the express warranty stated above, Sierra Monitor Corporation disclaims all warranties with regard to the products sold hereunder including all implied warranties of merchantability and fitness and the express warranties stated herein are in lieu of all obligations or liabilities on the part of Sierra Monitor Corporation for damages including, but not limited to, consequential damages arising out of/or in connection with the use or performance of the product.