Installation Guide

EtherWAN

1 Unpacking

Unpack the items. Your package should include:

➢ One **EX78900E** hardened managed switch

➢ One RJ-45 console cable

If items are missing or damaged, notify your EtherWAN representative. Keep the carton and packing material. The full product manual can be downloaded from:

https://www.etherwan.com

2 What Else You Need

➢ Appropriate cables for data ports. To prevent damage to the switch from electrical surges, it is recommended to use STP (Shielded twisted pair) cabling.

➢ Personal computer or laptop

➢ Appropriate SFP modules for SFP ports

3 Select a Location

➢ Installations: DIN-Rail mount.

➢ Select a power source within 6 feet (1.8 meters).

➢ Choose a dry area with ambient temperature between -40 and 75°C (-40 and 167°F).

➢ For use at altitudes up to 2000 meters, indoor use only.

➢ Humidity range (Operational): 5% to 95%, non-condensation

4 Connect to the Data Ports

➢ Depending on the model, your switch can have the following ports:

EX78922E-0VB	8-port 10/100/1000BASE-T (4 x 30W, 4 x 60W PoE)
	2-port 100/1000M SFP
EX78924E-0VB	8-port 10/100/1000BASE-T (4 x 30W, 4 x 60W PoE)
	4-port 100/1000M SFP
EX78934E-0VB	12-port 10/100/1000BASE-T (8 x 30W, 4 x 60W) PoE
	4-port 100/1000M SFP

10/100/1000BASE-TX (PoE) Ports

Ports that support Power over Ethernet provide power to networked devices such as IP Phones, Wireless LAN Access Points, and IP security cameras with a power budget of 240 Watts.

100/1000M SFP Ports

SFP transceivers can be installed directly into SFP slots. Ensure that the same type of transceiver is used at both ends of the link and that the correct type of fiber cable is used.

5 Apply Power

➢ The switch has two pairs of power inputs.

➢ Only one power input is required to operate the switch. However, redundant power supply functionality is supported.

➢ 52V/4.97A   57V/4.54A

➢ Note: Use qualified power supply by SELV or double insulation of UL60950 or UL61010-1 or UL61010-2-201 standards.

Terminal Block

The switch provides two power inputs on a 52-57VDC terminal block. The terminal block has 5 terminal posts.
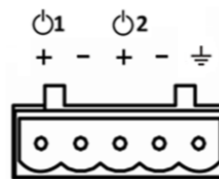
Pin		Description
Power 1	+	52-57VDC
	−	Power Ground
Power 2	+	52-57VDC
	-	Power Ground
⏚		Earth Terminal
Relay Output Rating		0.5A @48VDC

Relay Output Alarm

The switch provides two relay output contacts. Relay 1 is for signaling of a user-defined power, port, or ring failure. Relay 2 signals actions from one of the digital inputs. The relay outputs can be connected to an alarm signaling device. The Current is 0.5A@48VDC at Normal Open or Normal Close.
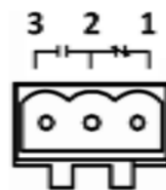
3 Normal Open | 2 Ground | 1 Normal close

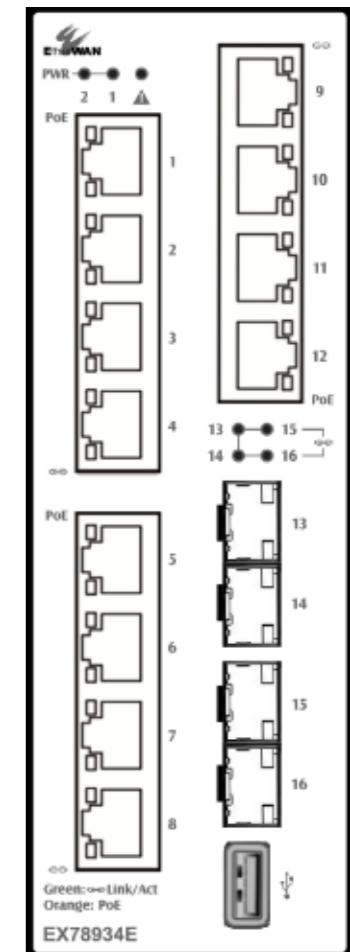| Relay Status		
	Normally closed	Normally Open
No Power	Closed	Open
Normal	Open	Closed
Abnormal	Closed	Open

Power-Up Sequence

When you apply power:

➢ All **Link/ACT** LEDs blink momentarily.

➢ The **Power 1** LED goes ON.

➢ LEDs for every port connected to a device flash, as the switch conducts a brief Power On Self-Test (POST).

6 Front Panel LEDs

LED	Color	Status
Power 1 & 2	Green	On: Power on
		Off: Power off
Link/Act	Green	On: Network connection established
		Flashing: Port sending or receiving data
PoE	Amber	On: Powered device is connected
		Off: Powered device is disconnected
Alarm	Red	Link down or power down

EX78900E

03/30/2021

Copyright 2021 EtherWAN Systems, Inc.

All Rights Reserved

Page 1

W70G-EX78900E2

7 Digital IO-Setting

Connecting the Digital Inputs

The pin definitions for the digital input module are shown below. Each digital input consists of two contacts on the 5-pin connector located on the back panel of the switch. The inputs can be wired as either dry or wet contacts.

Dry Contacts:
[DI1-/GND] [DI2-/GND]
Logic level 1: Close to GND(10mA)
Logic level 0: Open

Wet Contacts:
[DI1+/DI1-] [DI2+/DI2-]
Logic level 1 (High): 13~30 Volts (3.2mA)
Logic level 0 (Low): 0~3 Volts

Configuring Digital Input Alarms Using the Web Interface

Located under the **Diagnostics** group, the Digital IO-Setting page allows for quick configuration and enabling of digital input and environmental alarms.

DI Board Global Setting		
Digital Input/Sensor Monitoring	Enable ▾	Enabled
Monitoring Interval	1~65535	1 seconds
		Update Setting

Source Input	Description	Status	Alert		Min Interval (sec.)
Digital Input 1		Low(0-3V) /High(13-30V)	Low	Enable/High ▾	5
Digital Input 2		Low(0-3V) /High(13-30V)	Low	Enable/High ▾	5
					Update Setting

"Min Interval" range is 0 to 3600.
Set "Min Interval" to 0 to disable traps on the same alert.

Digital Output	Status		Alert	
Digital Output 1	Normal(0) /Abnormal(1)	0	Digital input 1 ▾	
Digital Output 2	Normal(0) /Abnormal(1)	0	Digital input 2 ▾	
			Update Setting	

To enable digital input alarms globally:

1. Choose Enable from the drop down menu in the Set State field.
2. Click on the Update Setting button to the right of the field.

To enable specific digital input alarms:

1. Enter a name or description of the alarm in the **Description** field. This will display in any emails sent if the alarm is triggered.
2. In the **Alert** field, choose **Enable/High** from the drop-down menu if you want the alarm to trigger in an occurrence of high voltage (wet contact), or Open state (dry contact). Choose **Enable/Low** if you want the alarm to trigger in an occurrence of low voltage (wet contact), or Closed to ground state (dry contact).
3. Click on the **Update Setting** button at the bottom right to put the new settings into effect. Then navigate to the Email configuration page.

8 Console Configuration

Connect to the switch console by connecting the DB-9 cable to the console port of the switch and to the serial port of the computer running a terminal emulation application (such as HyperTerminal or Putty).

Configuration settings of the terminal-emulation program: Baud rate: 115,200bps, Data bits: 8, Parity: none, Stop bit: 1, Flow control: none.

The default login name is "root," no password.

9 Web Configuration

Log in to the switch by launching a web browser and entering 192.168.1.10 in the address bar.

Enter the default login ID: root (no password) and click "Login." The system information screen will display.

10 USB Port

The switch is equipped with one USB port (Type A connector) for configuration file and syslog backup. The USB port can be used to save the configuration and Syslog to a (FAT32) USB storage device.

Plug the device into the USB port, and use the "Save Configuration" command in the web interface, or "copy running-config startupconfig" in the CLI. Use the "Export Logs to USB" command in the web interface, or "export logs" in the CLI.

11 Other information

DIN-Rail Assembly Startup, and Dismantling
➢ Assembly: Place the Switch on the DIN rail from above using the slot. Push the front of the Switch toward the mounting surface until it audibly snaps into place.
➢ Startup: Connect the supply voltage to start up the Switch via the terminal block.
➢ Dismantling: Pull out the lower edge and then remove the Switch from the DIN rail.
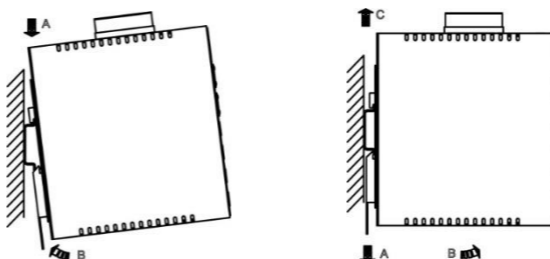
Note: The Switch can be extremely hot after running in full load for a while. Please use protective gloves when dismantling and adjusting the Switch.

Power wiring information:

Use cable type - AWG (American Wire Gauge) 18-22 and corresponding pin type cable terminals.

Using torque value 5 lb-in, do not use excessive force when fixing wiring.

The rating of the power wire used must be at least 105°C.

If the equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.
For repair or maintenance needs, contact EtherWAN directly.

Informations de câblage d'alimentation:

Utilisez le type de câble - AWG (American Wire Gauge) 18-22. valeur de couple de 5 lb-in.

Le calibre du fil d'alimentation utilisé doit être d'au moins 105°C.

DESTINÉ À ÊTRE UTILISÉ AVEC DES CONDUCTEURS EN CUIVRE SEULEMENT.

Si la méthode d'utilisation de l'équipement diffère de celle décrite par le fabricant, la protection assurée par l'équipement risque d'être altérée.

Contactez-nous pour l'entretien ou la reparation.

➢ Label clean up:
   Indoor use and pollution degree II, it must be wiped with a dry cloth to clean up the labelling.
➢ If the equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.
➢ The product is open type, intended to be installed in and industrial control panel or an enclosure.

Manufacturer information:

ETHERWAN SYSTEMS, INC.

33F, No. 93, Sec. 1, Xintai 5th Rd., Xizhi Dist., New Taipei City, 221 Taiwan

EX78900E

03/30/2021

Copyright 2021 EtherWAN Systems, Inc.

All Rights Reserved

Page 2

W70G-EX78900E2