EX73900E Series Hardened Managed Ethernet Switch

Installation Guide

EtherWAN

1 Unpacking

Unpack the items. Your package should include:

- One **EX73900E** 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 75ºC (-40 and 167ºF).
- Be sure there is adequate airflow.

4 Connect to the Data Ports

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

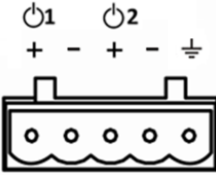| Model	Description
EX73922E-0VB	8-port 10/100/1000BASE-T + 2-port 100/1000BASE SFP Hardened Managed Ethernet Switch
EX73924E-0VB	8-port 10/100/1000BASE-T + 4-port 100/1000 BASE SFP Hardened Managed Ethernet Switch
EX73934E-0VB	12-port 10/100/1000BASE-T + 4-port 100/1000 BASE SFP Hardened Managed Ethernet Switch
EX73922E-0VB-CC	8-port 10/100/1000BASE-T + 2-port 100/1000BASE SFP Hardened Managed Ethernet Switch with conformal coating
EX73924E-0VB-CC	8-port 10/100/1000BASE-T + 4-port 100/1000BASE SFP Hardened Managed Ethernet Switch with conformal coating
EX73934E-0VB-CC	12-port 10/100/1000BASE-T + 4-port 100/1000BASE SFP Hardened Managed Ethernet Switch with conformal coating

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.

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 terminal block with nominal power of 24VDC. The terminal block has 5 terminal posts. Operating voltage is 12-48VDC (Max 1.6A).

Pin		Description
Power 1	+	12-48VDC
	–	Power Ground
Power 2	+	12-48VDC
	-	Power Ground
⏚		Earth Terminal
Relay Output Rating		0.6A @30VDC

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. Current is 0.6A@30VDC.
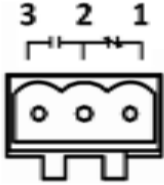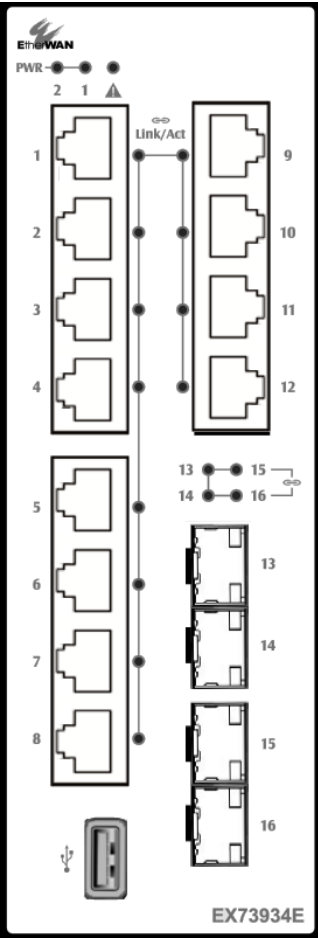

3 Normal Open | 2 Ground | 1 Normal close

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
Alarm	Red	Link down or power down

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).

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.
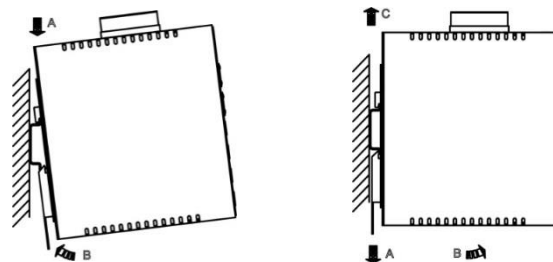
Power wiring information:

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

EX73900E
04/09/2021

Copyright 2021 EtherWAN Systems, Inc.

All Rights Reserved

Page 2

W70G-EX73900E1