ESULS4-M1-B
Quick Start Guide

Rev 1709

Index

1 INTRODUCTION

1.1 **ESULS4-M1-B INTRODUCTION**

ESULS4-M1-B is an unmanaged PoE/PoE+ Industrial Ethernet switch with 4*10/100M auto sensing electrical ports and 1 *100M SFP uplink ports. This product supports PoE/PoE+. Each electrical port outputs up to 30W. Industrial level 3 protection design and IP40 enclosure protection makes the product suitable for applications in harsh environments.

1.2 FEATURES

- – Unmanaged industrial switch
- – 4 10/100M Base-T ports
- – 1 100M SFP ports
- – Supporting IEEE802.3af&at
- – Dual 45~57VDC power input
- – Level 3 ESD protection
- – Overload current to protection and reverse polarity protection
- – IP-40 housing design
- – Operation temperature: -40~+75℃
- – Support DIN-rail or wall mounted
- – Unique DIN mount design makes mount and remove easy.
- – Installation: Plug-and-play, no setting required
- – Both POE and Non-POE are available.

1.3 SPECIFICATIONS

Ethernet	
10/100M Base-T	4
100M Base-X SFP	1(SFP slot)

PoE standard	IEEE802.3af/at
Switching Performance	
Architecture	Store and Foreword
Switching Capacity	1Gbps
Power	
Redundant Input Power	Dual DC inputs. 45~57VDC, 5-pin screw terminal
Power Consumption (Max.)	< 5W (without PoE output)
PSE type	End Span
POE Port	Each port up to 30W
Overload Current Protection	Present
Reverse polarity protection	Present
Mechanical	
Enclosure	IP40
Dimension (W x D x H)	62mm (W) x 87mm (D) x 100mm (H)
Weight	0.6kg
Environment	
Storage Temperature	-40 to +85ºC (-40 to 185ºF)
Operating Temperature	-40 to +75ºC (-40 to 167ºF)
Operating Humidity	5% to 95% Non-condensing

2   PANEL VIEWS

2.1   Front panel view
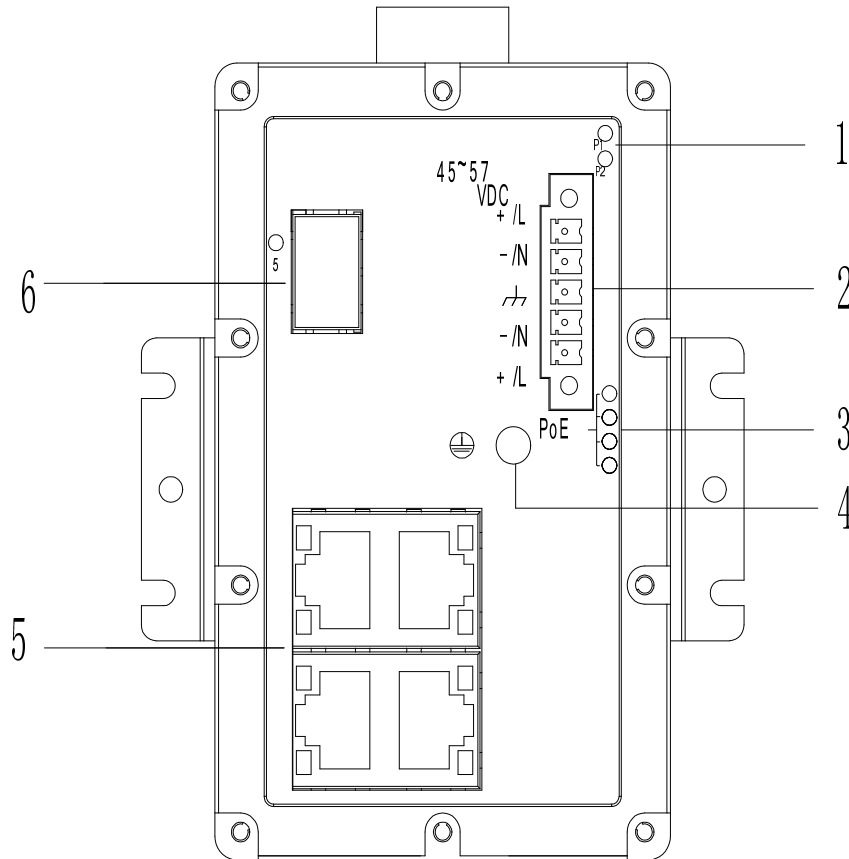
1. PWR status indication
2. 45~57VDC power input
3. PoE status indication
4. Grounding screw.
5. 10/100M Base-T port: #1 ~ #4
6. 100M Base-X SFP port: # 5

⚠ **WARNING：This product MUST be mounted to a well-grounded mounting surface such as a metal panel.**

Status indicator LED

LED	Color	Status	Description
P1	Orange	On	Power is being supplied
		Off	Power is not being supplied
P2	Orange	On	Power is being supplied

		Off	Power is not being supplied
PoE1-4	Green	On	The corresponding port's PoE power on
		Off	The corresponding port's PoE power off
100M Base-X SFP			
LINK/ACT	Green	On	Port connected
		Blinking	Data is being transmitted
10/100 Base-T(X)			
SPD	Green	On	Speed indicator for 1000Mbps
		Off	Speed indicator for 100Mbps and 10Mbps
LINK/ACT	Orange	On	The corresponding port's link is active
		Blinking	Data is being transmitted
		Off	The corresponding port's link is inactive

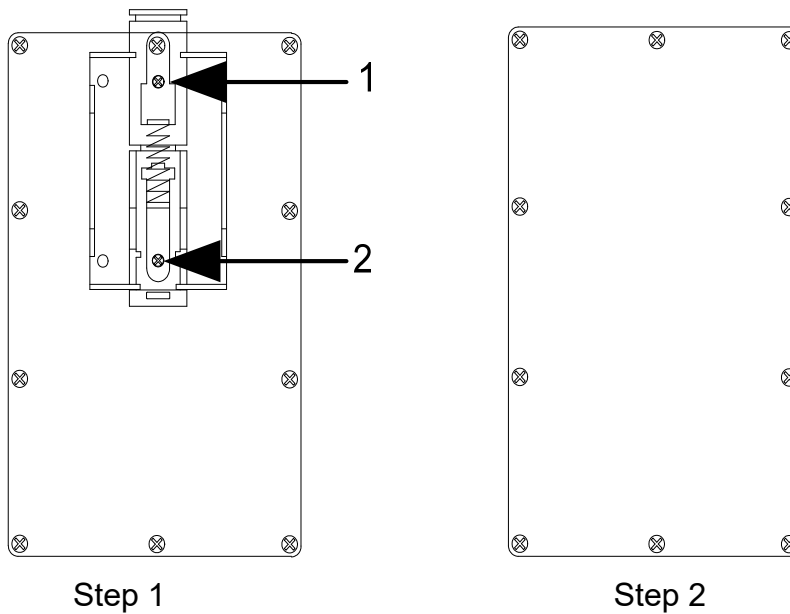# 3 DIMENSIONS (UNIT=mm)
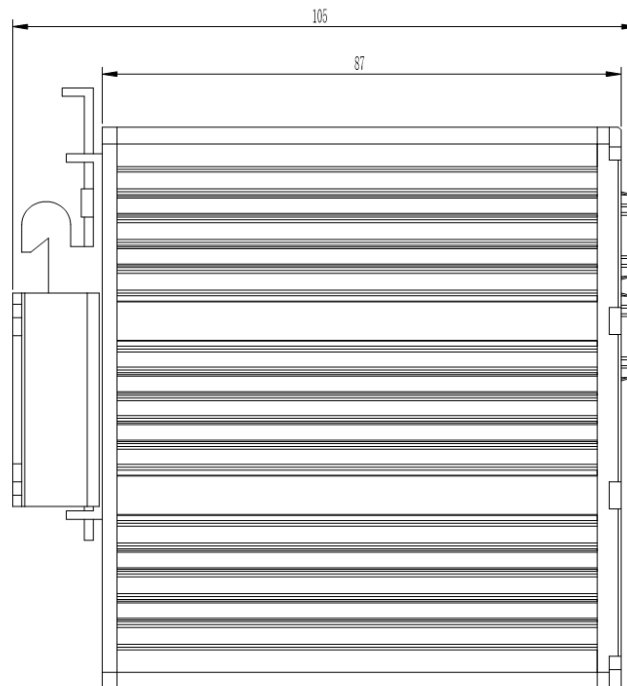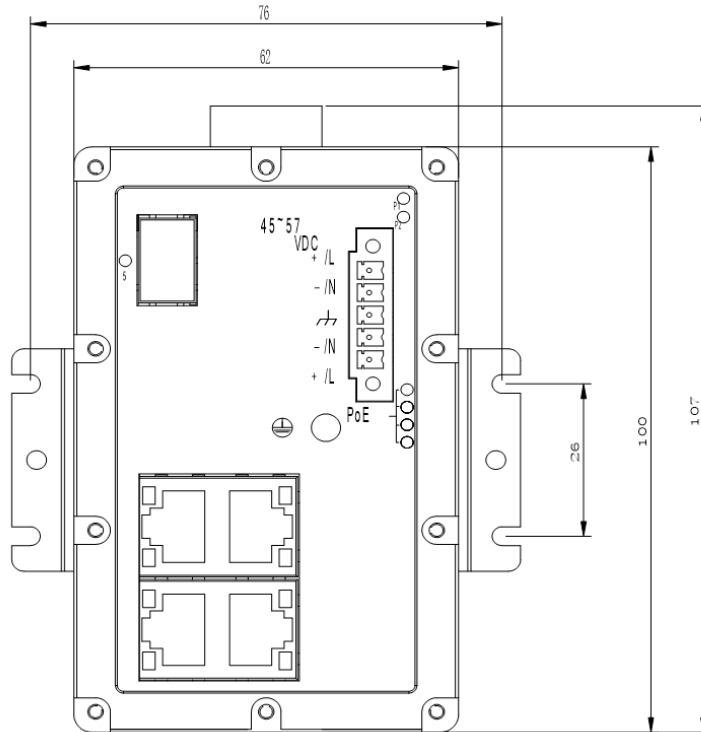
4 MOUNTING

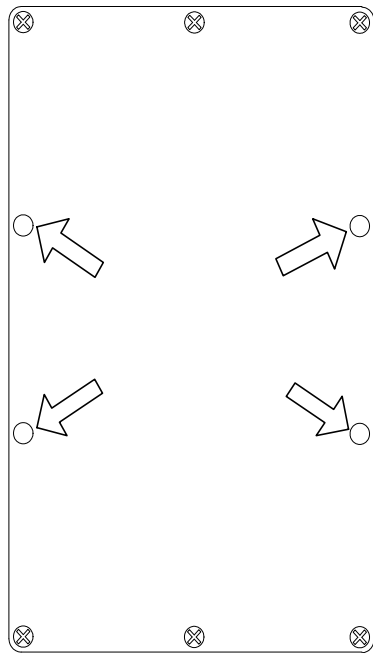## 4.1 DIN mounting
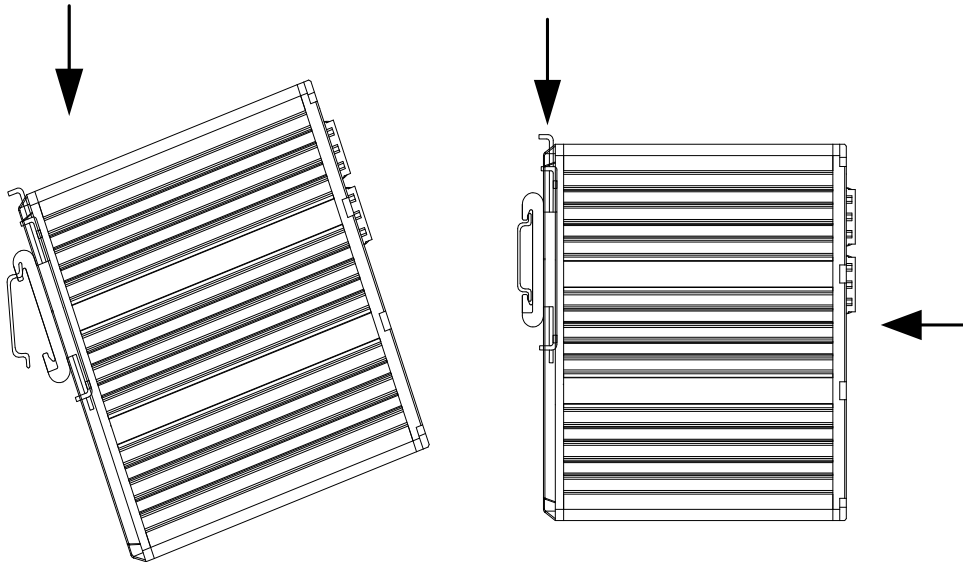
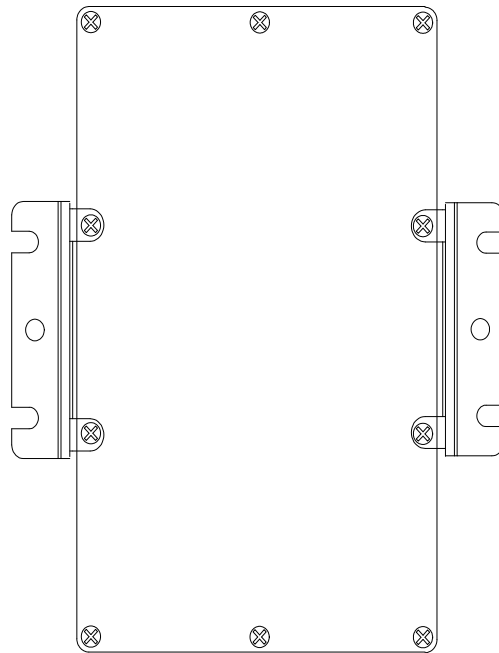Very simple: Press the clamp, insert into rail then loosen hand

4.2 Wall mounting

Step 1   Step 2

Step 3   Step 4

Step 1: Remove the guide rail fastener;

Step 2: Remove the DIN clamp in the rear panel;

Step 3: Find the wall mounting accessory, and loosen these 4 screws in the Switch.

Step 4: Mounting the accessory on the rear panel;

Step 5: Fixed the switch on the wall.

4.3   Items for attention

– **Operating Ambient:** If the product is installed in a closed rack, the inside operating ambient temperature of the rack may be higher than outside. Therefore, consideration should be given to installing the equipment in an environment compatible with the maximum operating temperature specified by the manufacturer.

– **Air Flow:** Installation of the equipment in a rack should be such that the amount of air flow required for safe operation of the equipment is not compromised.

– **Circuit Overloading:** Consideration should be given to the connection of the equipment to the supply circuit and the effect that overloading of the circuits might have on overcurrent protection and supply wiring.

– **Reliable Earthing:** Reliable earthing of rack-mounted equipment should be maintained. Particular attention should be given to supply connections other than direct connections to the branch circuit (e.g. use of power strips).

4.4   Grounding

Grounding and wire routing help limit the effects of noise due to electromagnetic

interference (EMI). Run the ground connection from ground screw to the grounding surface prior to connecting devices.

5   CABLE

5.1   Ethernet cable

The product uses standard Ethernet cable. Depending on the connection type, you can choose CAT3, 4, 5e, 6 UTP cable to connect to other network devices (computers, servers, switches, routers, hubs, etc.). Make sure that the cable properties in the following form.

cable	type	Max length	connector
10BASE-T	Cat.3, 4, 5 100-ohm	UTP 100 m (328 ft)	RJ-45
100BASE-TX	Cat.5 100-ohm UTP	UTP 100 m (328 ft)	RJ-45

100BASE-TX / 10BASE-T Pin Allocation

100BASE-TX / 10BASE-T Cable, pins 1 and 2 to send data, receive data pin 3, 6.

10/100Base-T RJ-45 Pin Definition

Pin Number	signal	POE
1	TD+	POE+
2	TD-	POE+
3	RD+	POE-
4	null	
5	null	
6	RD-	POE-
7	null	
8	null	

This switch supports MDI / MDIX auto-flip function. The following table lists the10/100Base-T MDI/MDI-X port pin output.

10/100 Base-T MDI/MDI-X pin definition

Pin definition	MDI port	MDI-X port	POE
1	TD+(transmit)	RD+(receive)	POE+
2	TD-(transmit)	RD-(receive)	POE+
3	RD+(receive)	TD+(transmit)	POE-
4	Not used	Not used	
5	Not used	Not used	
6	RD-(receive)	TD-(transmit)	POE-
7	Not used	Not used	
8	Not used	Not used	

5.2   SFP port

SFP port supports both electrical and optical SFP modules. Selecting right SFP modules (rate, MM/SM, 1 fiber/2 fibers) based on application. Please notice that 100M SFP port supports 100Mbps only.

Need Help?

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