

PT-PIS4PB1S-M PoE Switch

Quick Installation Guide



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Declaration

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The symbol indicates that the product should not be discarded as unsorted waste but must be sent to separate collection facilities for recovery and recycling.

Overview

The installation Guide for PT-PIS4PB1S-M and mainly introduces the hardware specification, installation methods, and precautions of the installation.

There may be differences in the appearance and configuration from other models. All product images in this manual are for illustration purposes only and may differ from the actual product.

This manual includes the following chapters:

1. Product Introduction. Including the basic functions and specification of PT-PIS4PB1S-M, as well as the product appearance and applications introduction.
2. Installation Introduction. Introducing the preparation work and precautions before installing the product.
3. Product Installation. Two methods of product installation.

For Whom

Network Engineers

Network Administrators

Field Technicians

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1. Introduction

1.1 Introduction

PT-PIS4PB1S-M, an industrial 4-port PoE switch with Managed Ethernet function. Supports IEEE 802.1Q VLAN and port-based VLAN. We can access and manage the device via web browser, including IP configuration, port configuration, VLAN configuration, PoE configuration, factory reset, etc. We can also view device information, such as switch status, port status, PoE status, etc. In addition, the PoE port enables remote control of the device' on/off.

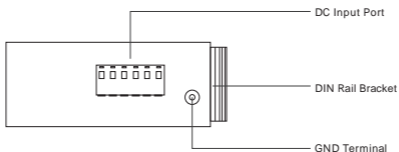
Equipped detecting chip inside which will make the PoE identification handshake with IEEE802.3af/at/bt PDs. Such as PTZ cameras, wireless APs, base stations, and other PoE-powered devices which need high power watts.

Protecting non-PoE powered devices. Each PoE output port delivers 1.75A up to 90W(max) power for remote PDs over 4 pairs.

One fiber slot only supports 1000Mbps of optical module, while RJ45 copper port supports 10/100/1000Mbps. Enclosed in an IP40 high-impact metal case with a DIN Rail mount bracket, designed for indoor use but can work outdoors by covering it with a waterproof case. It works with an input voltage of 48-57Vdc and operates under -40°to +65°. For planning purposes, the effective distance is 100 meters over Cat5/5e/6 cables.

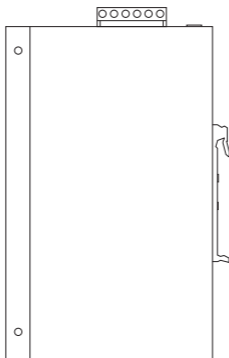
1.2 Appearance

- Upper View



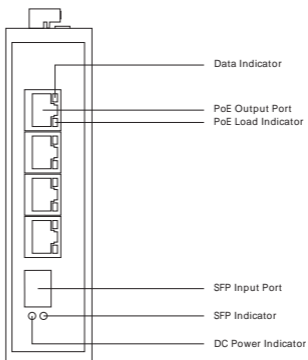
1-1 Upper View

• Side View



1-2 Side View

• Front View



1-3 Front View

PoE Indicator Display:

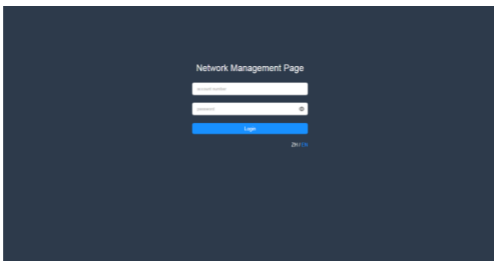
Items	Status	Description
PoE Load Indicator Green	Solid Light	PD is powered(Default/Normal).
	Flashing Light	Detecting PD If flashing all the time, the PD may not be 802.3af/at/bt standard.
Data Indicator Yellow	Solid Light	Data available(Normal).
	Flashing Light	Data is being transferred.
Light Off		PoE Switch is powered off/defective.

1.3 Specification

Items	Description
Input	48-57Vdc 7.5A
PoE Standard	IEEE802.3af/at/bt
Output	46-57Vdc 1.75A, Each Port: 90W (Max)
Power Pins	4/5(+), 7/8(-) & 3/6(+), 1/2(-)
PoE Surge Protection	Protected line:1,2,3,4,5,6,7,8
	Common mode surge protection(10/700us): 6kV
	Differential mode surge protection (10/700us): 1.5KV
Work Temp.	-40 to 65
Operating Humidity	5%-95% , non-condensation
Operating Altitude	Up to 5000 meters
Storage Temp.	-40 -70
Storage Humidity	10%-90% , non-condensation
Network Protocol	IEEE802.3i / IEEE802.3u / IEEE802.3ab / IEEE802.3z
Data Speed	RJ45 : 10/100/1000Mbps SFP:1G
Regulatory Compliance	CE FCC
IP Rated	IP40
Dimensions & NW	144.5mm × 95mm × 35.4mm (483g)
EMC	EN 55032:2015/A11:2020
	EN 55035:2017/A11:2020

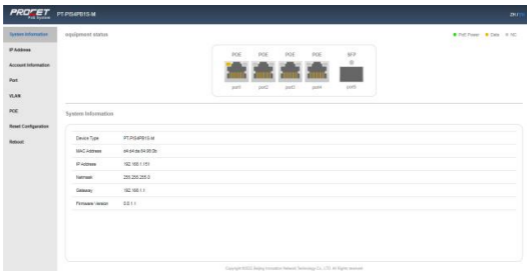
1.4 Web Management

When all network connection is completed, run web browser on the computer, type in the address field, for example, 192.168.1.151, then press ENTER for opening the login page. Log into the system with a username and password. The login page is displayed in the below pic. Caution: Make sure the computer must be set on the same IP subnet address as the PoE managed switch. Such as 192.168.1.*



After entering the username and password, the main screen appears as below figure.

There are Switch Menu on the left of the web page, including System Information, IP Address, Account Information, Port, VLAN, PoE, Reset configuration, and Reboot.



The current device supports VLAN segmentation function. Users can flexibly segment the VLAN according to demand.

equipment status

PROET PT PIS4P15-M

System Information

IP Address

Account Information

Port

VLAN

PoE

Reset Configuration

Reset

VLAN

VLAN ID	VLAN Name	Member Port	Config Port	Option
1	VLAN1	12345	12345	Set Delete

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This Page supports the PoE configuration function, disables or enables PoE port, displays per PoE port power consumption, voltage, current, and Class level information.

equipment status

PROET PT PIS4P15-M

System Information

IP Address

Account Information

Port

VLAN

PoE

Reset Configuration

Reset

PoE

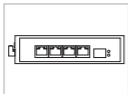
Port	Date	Class	Power(W)	Voltage(V)	Current(A)	Power Option
1	07/11	0	0	0	0	Name Time Class
2	07/11	0	0	0	0	Name Time Class
3	07/11	0	0	0	0	Name Time Class
4	07/11	0	0	0	0	Name Time Class

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2. Installation Preparation

2.1 Package contents

Open the box of the PT-PIS4PB1S-M and carefully unpack it, the box should contain the following items:



PT-PIS4PB1S-M



Operation Manual



Ground
lug Wire & 2.5
screw

2.2 Installation toolkit

These tools may be needed during equipment installation, and should be prepared by yourself: level ruler, marking pen, craft knife, wire stripper, network pliers, impact drill, different matching drillbits, rubber hammer, cross screwdriver, wrench, ladder, etc.

2.3 Inspection

2.3.1 Connect the device to a DC Power System and check the PWR LED to ensure proper function before installation.

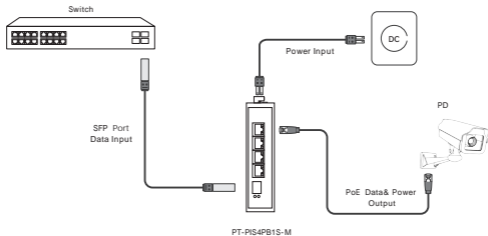
2.3.2 Connect the PoE port to the PoE powered device(PD). Such as the IP Cameras or Wireless APs.

As showed in Figure 2-1 ;



Caution :

Please use PoE powered device(PD) that complies with IEEE802.3af/at/bt/PoE++ to connect this product.



2-1 Device Connection

Caution :

1. Please read the instructions carefully and follow the standard operating procedures before using.
2. Please place it in a well-ventilated and dry area, and it is for indoor use only.
3. Connect the DC power cable to the Procet PoE switch. The DC connector is a screw terminal block. Loosening and tight the screw by using a straight driver.
4. Connect a fiber-optic cable from your switch to this PoE switch SFP port for fiber data transfer. The SFP fiber transceiver is not included in the package. The current PoE switch supports single-mode and multi-mode fiber modules.
5. Connect a CAT5/5e/6 cable with the RJ45 connector into the RJ45 socket labeled PoE. On the other end of the CAT5e/6 cable, connect to your PoE Device (such as IP Cameras etc). The total Ethernet cable length can not exceed 100 meters.
6. The device must be placed on a stable surface, preferably affixed and mounted permanently. Do not leave it "dangling" and use plugged-in cables in tension as support. Drops, falls, and impacts experienced by the injector can compromise the internal components & cause premature failure.
7. Do not place heavy objects on top of this injector. Allow at least 5cm of clearance on all sides of the device for heat ventilation / natural convection.



To ensure better lightning protection for outdoor PD, it is recommended to use PROCET Ethernet surge protection products. For more information, please visit <http://www.procetpoe.com>

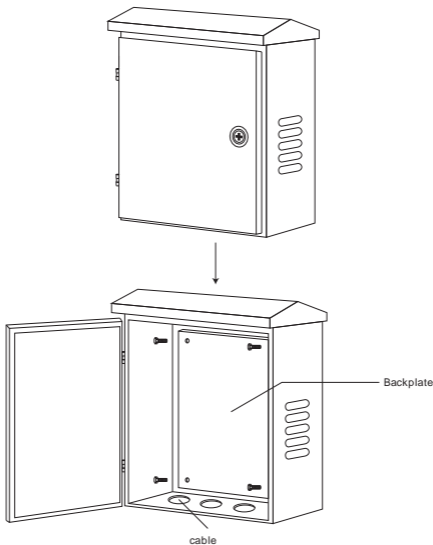
3. Installation

This product is safe to use for waterproof case installation and wall-mounted installation.

3.1 Installation in waterproof case

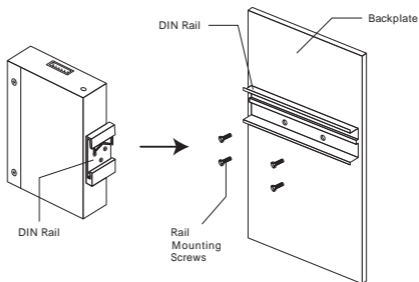
If it is placed in an outdoor environment, please install the device in a waterproof case with a height of 45cm if possible.

3.1.1 Install the waterproof case first, and keep the case open. As showed in 3-1.



3-1 Waterproof case

3.1.2 Remove the metal backplate from the waterproof case and fix the DIN rail bracket on the backplate, then install this product on DIN rail bracket.



3-2 Installation

3.1.3 Reinstall the backplate with the installed product into the waterproof case.



Caution:

Please use the expansion bolts, when you install the product with wall-mounted way.

3.2 Connection

After installation is done, the next step is the connection. The following precautions should be taken when connecting the Ethernet cable:

3.2.1 Lay the cable according to the design requirements. The cable should be laid firmly and neatly, with no crossing, twisting, or cracking.

3.2.2 Do not lay the cable together with high-voltage pipelines, fire pipelines, or building lightning protection systems to avoid interference from strong electricity or magnetism.

3.2.3 Use PVC pipes, iron pipes, Prilka pipes, or cable trays for cable laying. The cable trays should be placed against the wall, with neat and beautiful routing. Soft hoses or elbow joints should be used at turning points. The cable trays should be secured with cable ties, hangers, and angle steels at a spacing of 1 to 1.5 meters. If a metal cable tray is used, it should be grounded at both ends.

3.2.4 For outdoor horizontal wiring, please use a slot every 6 meters under the PVC pipe as a drain to prevent water accumulation inside the pipe.

3.2.5 The wall penetration for the Ethernet cable should be sealed with waterproof and flame-retardant materials.



Caution :

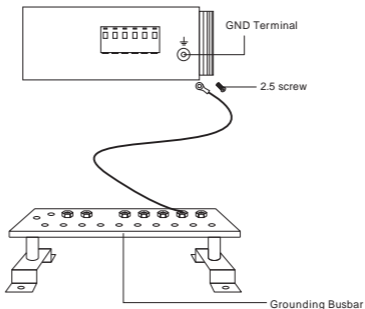
Waterproof Ethernet cables should be with a protective sheath. CAT5e/6 cables are recommended.

3.3 Grounding

PROCET PoE switch PT-PIS4PB1S-M has the following grounding solutions for reference during construction:

If the installation is in the computer room, it can be connected to the dedicated grounding busbar in the room. The grounding busbar is a connecting conductor between the grounding bodies of the building, such as flat iron, flat steel, nanomaterial conductors, copper-clad steel, etc.

Pls refer to the figure 3-3.



3-3 Grounding

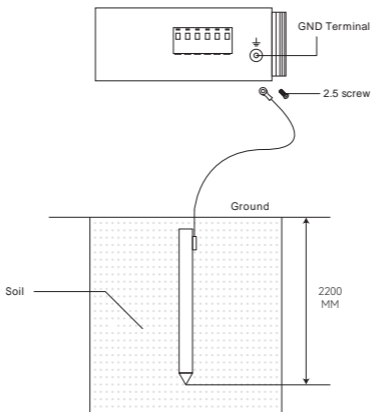
For the safety of personnel and equipment in an environment without dedicated grounding equipment, a simple grounding device can be constructed as follows:

- Prepare a 6mm² grounding wire or a braided soft copper wire.
- Prepare a copper tube or angle iron, or other metal tube, bury it underground to a depth of one meter or more as a grounding electrode.
- Use the grounding wire to connect the external grounding terminal of the product to the metal tube. (or angle iron)



Caution:

Use a galvanized metal pipe buried underground at a depth of one meter or more, such as a water or sewer pipe, as an emergency grounding if no other grounding environment is available.



3-4 Simple Grounding

3.4 Inspection

Inspect the installed equipment before putting it into operation :

- Make sure the PD is compliant with our product.
- Make sure the Ethernet cable connection is correct.

Make sure all connections are correct, and turn on the power, inspect all the indicators.

Qualification Card

PASS