

PT-POS8PB2SM-OT

Quick Installation Guide



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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-POS8PB2SM-OT 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-POS8PB2SM-OT, 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. Introducing how to install this product.
4. Spare Parts Information. Introducing the spare parts information for this product.

For Whom

Network Engineers

Network Administrators

Field Technicians

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1. Introduction

1.1 Introduction

PT-POS8PB2SM-OT is an outdoor-rated PoE switch. Enclosed in an IP67 Reflective metal case with a sealing gasket that passes tension, bearing, corrosion, and aging tests for IP67 applications. Pass the salt spray resistance test. Including 1 AC input port, 2 SFP 1G/2.5G fiber slot, 1 multi-function interface, and 8 PoE output port with 6KV (10/700us) surge protection, provides 55Vdc, 1.64A power for remote PDs over 4 pairs at 10/100/1000Mbps. The total output power budget is 350W.

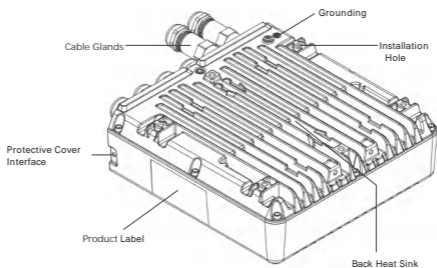
It works with a wide input voltage of 100-240Vac with 6KV surge protection and operates from -40 to +65 . Equipped with a detecting chip inside which makes the PoE identification handshake with IEEE802.3af/at/bt PDs, can power PTZ cameras, wireless APs, base stations, and other PoE-powered devices. Protect non-PoE standard devices. The effective distance is 100 meters over Cat5e/Cat6 cables. Easily to install with installation kit (Sold separately), no need to open the equipment.

The PoE switch can power external devices with selectable 24V/12V output, and its 485/232 interface supports communication with external devices.

Models with an " M " in the P/N include Ethernet and PoE management functionalities. It can be accessed and managed via a web browser, supporting configurations such as IP settings, port settings, VLAN settings, PoE settings, and factory reset. Users can also view device information, including switch status, port status, and PoE status. Additionally, the PoE ports allow for scheduling timed power on/off operations.

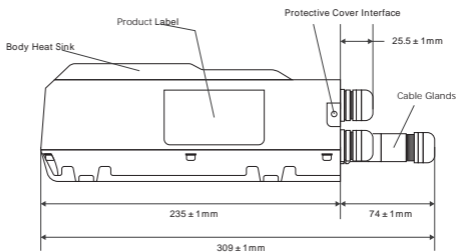
1.2 Appearance

• Perspective View



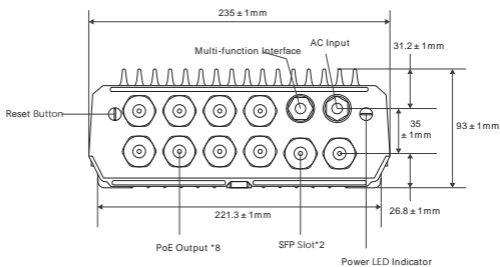
1-1 Perspective View

• Side View



1-2 Side View

• Bottom View



1-3 Bottom View

PoE Led Indicate:

Items	Status	Description
Power Indicator	Solid Green Light	The equipment is powered
	Light Off	The device is powered off/not plugged in/no power
PoE Data Indicator	Solid Yellow Light	Data available, but no transfer / no activity
	Flashing Yellow	Data is being transferred
	Light Off	Data not available or failed connection
PoE Load Indicator	Solid Green Light	Power output is active/Work Normally
	Flashing Green	Detecting 802.3af/at/bt PD
	Light Off	PoE output is not active
LAN Indicator (Not for the unit)	Solid Yellow Light	Data available, but no transfer / no activity
	Flashing Yellow	Data is being transferred
	Light Off	Data not available or failed connection
SFP Indicator	Solid Blue Light	Data available, but no transfer / no activity
	Flashing Blue	Data is being transferred
	Light Off	Data not available or failed connection
Network Management Indicator	Flashing Green Light Slowly	The system is running normally.
	Flashing Green Light Rapidly	The system is resetting.
	Light Off/Solid Light	The system is initializing.

1.3 Specification

Items	Description
Interface	PoE*8 SFP*2 AC*1 GND*1 Multi-function Interface*1
PoE Standard	IEEE802.3af/at/bt
Input Power	110-240Vac 350W
Data Speed	RJ45 Ports: 10/100/1000Mbps, SFP: 1000/2500Mbps
Forwarding Mode	Store-and-Forward

Item	Description
Backplane Bandwidth	26Gbps
MAC address capacity	16K
VLAN	Support 4096 VLAN IDs
	Support 802.1Q VLAN
	Supports port-based VLANs across any combination of multiple chips.
Packet Forwarding Rate	19.344Mpps
PoE Power Pins	4,5(+)/7,8(-) 3,6(+)/1,2(-)
Output	55Vdc 1.64A 90W Max per port, total power budget 350W Max
Media Access Control	IEEE 802.1d Standard
	Supports MAC address automatic learning and aging.
Service Quality (QoS)	Support High-speed, non-blocking four-traffic QoS structure.
PoE Surge Protection	Common mode surge protection(10/700us): 6kV Differential mode surge protection (10/700us): 1.5KV
Operating Temp.	-40°C to 65°C
Operating Humidity	5%-95%, non-condensation
Operating Altitude	Below 5000 meters
Storage Temp.	-40°C-70°C
Storage Humidity	10%-90%, non-condensation
Network Protocol	IEEE802.3i/IEEE802.3u/IEEE802.3ab/IEEE802.3z
IP Rated	IP67
Dimensions	309mm(Including Protective Cover 337mm)X 235mm X 93mm
Overcurrent protection	Overcurrent protection for each PoE port, exceeding the current limit of 1.65A will shut down the port power

1.4 Management Interface

After connecting to the device, enter the IP address of the login device in the browser address bar (e.g.: 192.168.31.192), the display page is as shown below, enter the account: admin; password: 123456; enter the device page. Note: The login computer IP needs to be in the same network segment as the login device (e.g.: 192.168.1.*).



After successful login, the page displayed is as follows, including system information, IP address, account information, port, virtual LAN, power supply, reset configuration, restart and other functions.



Simple VLAN division can meet different needs and achieve directional communication.



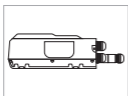
Display PoE power supply status; control PoE power supply: click the normal button to indicate normal PoE power supply, click the force button to indicate PoE forced power supply, click the close button to indicate PoE is forced to shut down and no power supply, etc.



2. Installation Preparation

2.1 Package Contents

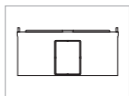
Open the box of the PT-POS8PB2SM-OT and carefully unpack it, the box should contain the following items:



PT-POS8PB2SM-OT



Operating Manual



Protective Cover

2.2 Inspection

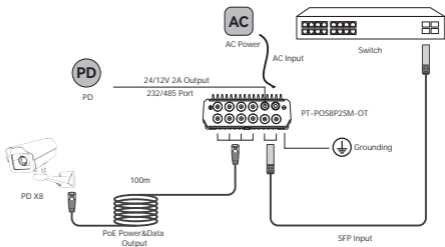
Before installing the device, please feed it with an AC power source to check proper function first.

Connect the SFP port to the data source/uplink for network access. Connect the PoE port to the PoE-powered device(PD). Such as the IP Cameras or Wireless APs to check the PoE function. As shown in Figure 2-1.



Caution:

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



2-1 Device Connection

Cautions:



1. Please read the instructions carefully and follow the standard operating procedures before using.
2. The device requires grounding.
3. For outdoor use, please use IP67 network cables to prevent the outdoor environment from affecting the network quality.
4. Please do not place this device on an unstable box or table, as it will cause serious damage if it falls; When choosing wall mounting, it should be secured.
5. Sufficient space (greater than 5 cm) should be reserved around this device to allow for proper heat dissipation.
6. Please do not place heavy objects on this device.

3. Installation

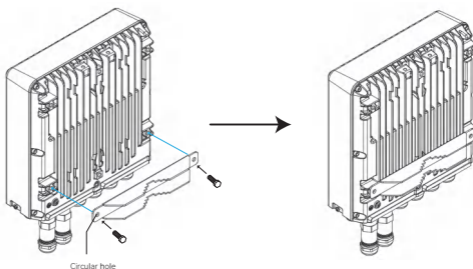
This product is safe to use for pole installation.

3.1 Pole Installation

The equipment is mainly installed by the bollard to achieve waterproof and stable work, if it is in a harsh outdoor environment, please install the protective cover properly.

3.1.1 Fix the two large brackets on the back of the switch with the four M5 × 25 bolts and M5 nuts through the circular holes.

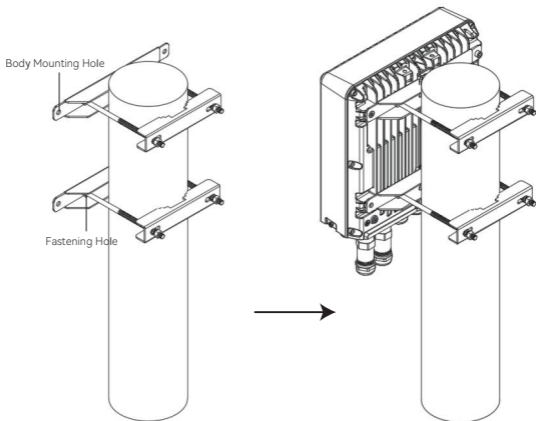
As showed in 3-1.



3-1

Pole Installation

3.1.2 To secure the product onto a suitable pole, use four M6 × 150 bolts and M6 nuts through the rectangular holes. As showed in 3-2.



3-2 Pole Installation

3.1.3 Tighten the screws to complete the installation.



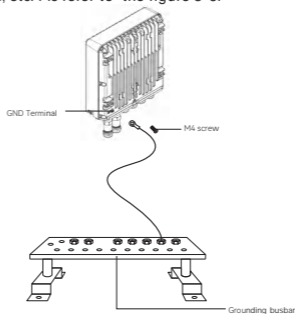
Caution:

To ensure a better protection for outdoor PD, it is recommended to install the protective cover.

3.2 Grounding

PROCET PoE Switch PT-POS8PB2SM - O T 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 3-6.



3-6 Grounding

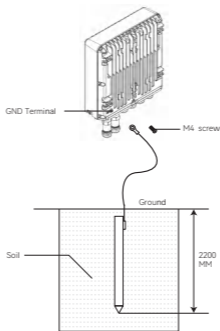
For the safety of personnel and equipment in an environment without dedicated grounding equipment, a simple grounding device can be constructed as follows (pls refer to the figure 3-7.):

- Prepare a 6mm^2 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 sewage pipe, as an emergency grounding if no other grounding environment is available.



3-7 Simple grounding

3.3 Connection

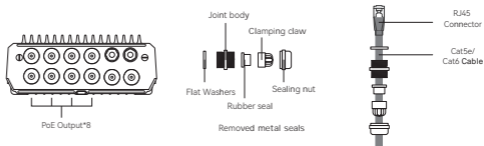
RJ45 Port (as show in 3-8)

3.3.1 Remove the metal seals from the product. There are a total of five seals to be removed; here, one RJ45 port is used as an example.

3.3.2 Slide the metal seal components onto the Ethernet cable in the following order (the waterproof rubber stopper is not cut diagonally by default), and then crimp the RJ45 connector.

Our waterproof rubber stoppers are available with inner diameters of 8mm(for 5-8mm cable) and 12mm(for 8-12mm cable). The 12mm option is provided by default unless otherwise specified when placing the order.

If the user is using pre-terminated Ethernet cables with RJ45 connectors, make a diagonal slit on the side of the waterproof rubber stopper (or request pre-cut rubber stoppers when placing the order). The cable can then pass through the slit into the central hole of the rubber stopper. Afterward, insert the Ethernet cable with the waterproof connector into the product interface.



3-8 RJ45 Port Connection

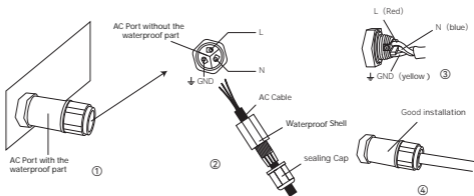
AC Port (as show in 3-9)

3.3.3 The AC input port uses screw terminals for connection. The AC input port has indicator markings to define the three pins, labeled as Ground (G), Neutral (N), and Line (L).

3.3.4 The AC power cable diameter should be between 4.5mm and 12mm. Strip 25mm of the cable sheath and 10mm of each wire's insulation. Thread the power cable through the waterproof cap.

3.3.5 Insert the wires into the correct terminal pins and use a straight screwdriver to secure the wires to each pin.

3.3.6 Slide the waterproof gland over the AC input port pins and hand-tighten it to the enclosure.



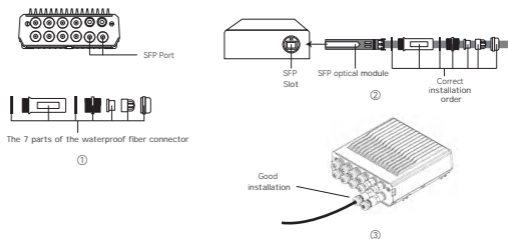
3-9 RJ45 Port Connection

SFP Port (as show in 3-10)

3.3.7 Thread the waterproof components onto the fiber optic cable in order..

3.3.8 Insert the SFP optical module (not included) into the SFP slot.

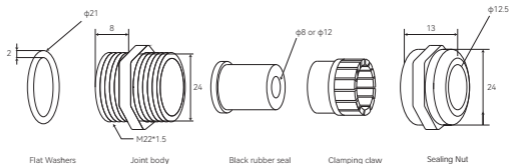
3.3.9 Finally, tighten the waterproof components onto the product's SFP interface.



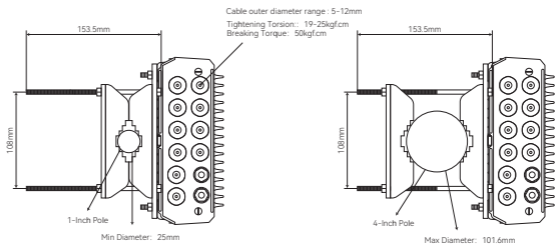
3-10

SFP Port Connection

4. RJ45 cable glands of each part's size

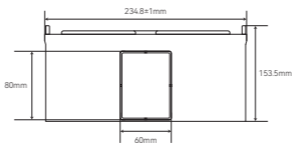


4-1 Dimensions of waterproof connector parts (mm)

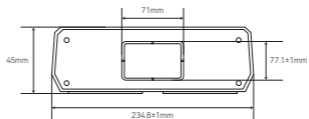


4-2 Diameter range of the installation kit

• Front View



• Bottom View



4-3 Dimensions of the installation kit

Qualification Card

PASS