PROCET
PoE System

DIN-Rail PoE Switch

Datasheet

PT-PIS8PB2S-E-M
PT-PIS8PB2S-E-M-RS

03/2025,A001483010-19

Contents

Declaration

Copyright Notice

This product complies with environmental protection design standards. Please do not dispose of this product as household waste. Users are advised to separate this product from domestic waste at the time of disposal. Proper waste classification will contribute to the conservation of natural resources and the reduction of environmental pollution.

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Document History

Version	Date	Notes
v1.0	2026/03/19	First Version Release

For Whom

This manual is intended for:

Network Engineers

Network Administrators

Field Technicians

Model Comparison Chart

Item	PT-PIS8PB2S-E-M	PT-PIS8PB2S-E-M-RS
PoE Standard	IEEE802.3af Power over Ethernet IEEE802.3at Power over Ethernet IEEE802.3bt Power over Ethernet	
Ports	DC IN*1 SFP*2 PoE*8 Grounding*1	DC IN*1 SFP*2 PoE*8 DC&485*1 Grounding*1
Op. Temp.	-40℃-65℃	
Power Pins	4/5(+),7/8(-) & 3/6(+),1/2(-)	
Network Manage	Support 802.1Q VLAN,Support MAC Address , Auto-Learning and Aging Cable Detection	
OCP	Each PoE-out Port is Equipped with Maximum Current Protection	
IP Rate	IP40	
Size	153mm X 118mm(including the buckle 129.1mm) X 80mm	

1 Product Introduction

1.1 Product Positioning

This DIN-rail industrial switch features 2 SFP ports (2.5G/1G) and 8 Ethernet ports, supporting wide-temperature operation from -40℃ to 65℃. It's suitable for both indoor and outdoor use with a waterproof enclosure.

All 8 PoE ports comply with IEEE 802.3bt, each delivering up to 90W, enabling centralized power for high-consumption devices. PoE management includes remote control, priority allocation, and real-time power monitoring to ensure safe and efficient power usage.

The switch supports a wide 12V–55V input range via boost technology, starting from as low as 12V. At 48V input, it delivers up to 360W total PoE power for high-load applications.

It includes two independent RS485 circuits for sensor connectivity and a selectable 12V/24V (max 2A) auxiliary output for external devices like alarms, simplifying wiring.

Layer 2 network management features—VLAN, QoS, and port mirroring—ensure stable data transmission. Its DIN-rail mounting design enables fast deployment in control cabinets, making it ideal for smart lighting, rail systems, and energy infrastructure, while reducing installation cost and improving maintenance efficiency.

1.2 Product Features

PoE Management: Supports remote port power control, priority setting, and real--time power monitoring to avoid overload risks and improve energy efficiency.

8-Port Power Output: Each port complies with the IEEE 802.3bt standard, delivering up to 90W output per port to power high-consumption devices.

Boost Power Technology: Supports wide voltage input from 12V to 55V, 120W output at 12V input, 240W output at 24V input, 360W output at 48V input.

Power and Communication Expansion: Supports two RS485 transparent transmission channels and provides a switchable 12V/24V 2A auxiliary power output.

Localized Software Upgrade: Software can be automatically updated via a localized web-based interface (WEB GUI).

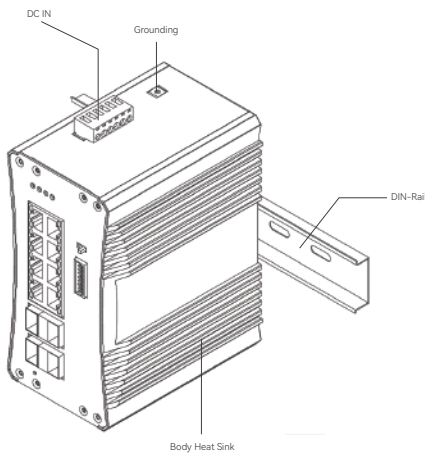
Network Management: Supports VLAN segmentation, QoS prioritization, and port mirroring to optimize network traffic and ensure low-latency transmission of critical data.

DIN-Rail Mounting: Standard DIN-rail design allows quick installation in cabinets or control boxes, saving space and simplifying maintenance.

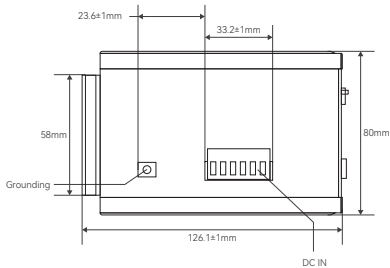
Wide Temperature Operation: Supports full-load operation in extreme environments ranging from -40℃ to 65℃.

1.3 Product Appearance

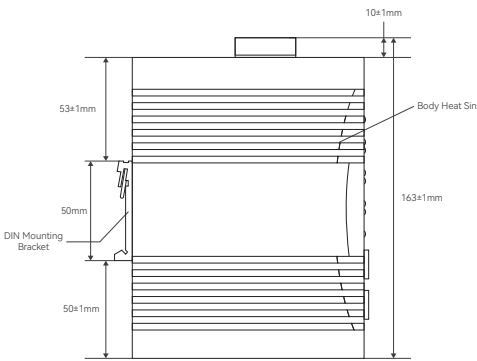
- Perspective View（Installed）



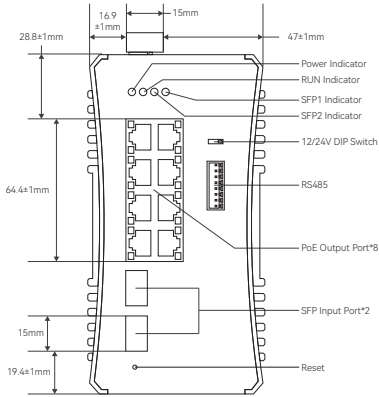
• Top View



• Side View



- Bottom View


16.9
±1mm
15mm
28.8±1mm
47±1mm
Power Indicator
RUN Indicator
SFP1 Indicator
SFP2 Indicator
12/24V DIP Switch
64.4±1mm
RS485
PoE Output Port*8
SFP Input Port*2
15mm
19.4±1mm
Reset

Port Indicator Lights (including all product indication states), with status descriptions as follows:

Item	Status	Description
Power Indicator	Solid Green	The device is powered on and can operate normally.
	Off	The device is not powered on or the power – on fails.
Data Indicator	Solid Yellow	Data Connection
	Blinking Yellow	Data is being transmitted
	Off	The port is not connected to the device or the connection fails.
PoE Indicator	Solid Green	PoE power supply.
	Blinking Green	Detecting load.
	Off	The port is not connected to the device or the connection fails.
SFP Indicator	Solid Green	Data Connection
	Blinking Green	ACTIVE

2 Product Specifications

2.1 Electrical Parameters

Item	PT-PIS8PB2S-E-M	PT-PIS8PB2S-E-M-RS
Ports	DC IN*1 SFP*2 PoE*8 Grounding*1	
DC&485 Port	-	8PIN interface, 2PIN DC port provides 12Vdc/24Vdc switching option, 2 * 2PIN RS485 interfaces, 2 * EARTH
Input	12-55Vdc	
Output	120W output at 12V input (including DC output Port) 240W output at 24V input (including DC output Port) 360W output at 48V input (including DC output Port)	
DC Output	12/24Vdc 2A Max	
PoE Output	55Vdc 1.64A Max Single Port	

2.2 PoE Characteristics

Item	PT-PIS8PB2S-E-M	PT-PIS8PB2S-E-M-RS
PoE Standard	IEEE802.3af Power over Ethernet IEEE802.3at Power over Ethernet IEEE802.3bt Power over Ethernet	
Power Pins	4/5(+),7/8(-) & 3/6(+),1/2(-)	
PoE Output	55Vdc 1.64A 90W Max per port	

2.3 Switching Characteristics

Item	PT-PIS8PB2S-E-M	PT-PIS8PB2S-E-M-RS
Switching Mode	Store-and-Forward	
VLAN	Support 4095 VLAN IDs Support 802.1Q VLAN Support VLAN based on any combination of ports across multiple chips	
Network Protocols	IEEE802.3i/IEEE802.3u/IEEE802.3ab /IEEE802.3z/IEEE802.3bz	
Data Rate	RJ45: 100/1000Mbps, SFP: 1000/2500Mbps	
BBW	26Gbps	
MAC Capacity	16K	
PF Rate	19.344Mpps	
MAC Address Table	Follow IEEE 802.1d standard Support MAC address auto - learning and aging	
QoS	Support high - speed, non - blocking four - traffic - class QoS structure	

2.4 Physical Characteristics

Item	PT-PIS8PB2S-E-M	PT-PIS8PB2S-E-M-RS
Housing Material	Aluminum alloy + Steel Support Plate	
Install Method	DIN-Rail- mounting	
IP Rate	IP40	

Item	PT-PIS8PB2S-E-M	PT-PIS8PB2S-E-M-RS
Size	153mm X 118mm(including the buckle 129.1mm) X 80mm	
Weight	1671g	

2.5 Environmental Parameters

Item	PT-PIS8PB2S-E-M	PT-PIS8PB2S-E-M-RS
Op. Temp	-40℃ to 65℃	
Op. Humid.	5%-90%，non - condensing	
Op. Altitude	Below 5000 meters	
Stor. Temp.	-40℃ to 85℃	
Stor. Humid.	5%-95%，non - condensing	
IP Rate	IP40	

2.6 Compliance Certifications

Safety Standard： IEC 60950-22 (Information Technology Equipment Safety)

EMC Standards： CE、FCC（Electromagnetic Compatibility）

Environmental Standard： RoHS（Restriction of Hazardous Substances）

2.7 Web Interface

After connecting the device, enter the login device IP address (e.g., 192.168.1.192) in the browser address bar. The displayed page is as shown below. Enter the account: admin; password: 123123; to enter the device page. Note: The IP of the login computer needs to be in the same network segment as the login device (e.g., 192.168.1.*).

After successful login, the displayed page is as follows, with modules such as Home, VLAN Configuration, Switch Management, Monitoring, Quality of Service, PoE Settings, Power Supply Settings, Transparent Transmission Settings, Scheduled Tasks, and System Management.

Simple VLAN division can meet different requirements and achieve directed communication.

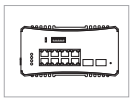
The PoE power - supply status can be displayed; PoE power - supply can be controlled: click the "Normal" button for normal PoE power - supply, click the "Force" button for forced PoE power - supply, and click the "Off" button for forced PoE power - off.

For detailed software operation instructions, please refer to the software user manual.

3 Installation Preparation

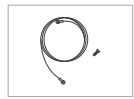
3.1 Items Required for Installation

When installing the device, the following items are required. These items are assembled in the product packaging box.

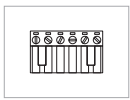


PT-PIS8PB2S-E-M-RS

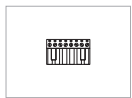
Operating Manual



Grounding stout cable
& M3 Screws



DC IN Phoenix Terminal

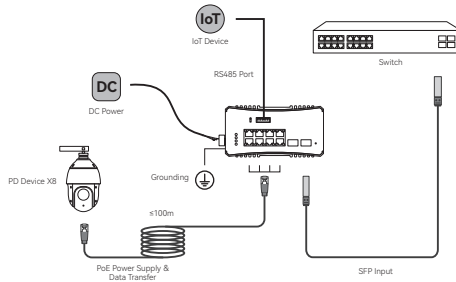


DC & RS485 Phoenix Terminal

3.2 Equipment Inspection

Before installing the device, please connect the device to the power supply first to check whether it can operate normally.

Connect the power supply using the DC port, connect the SFP port to a switch to provide a network. When using standard PoE power - supply, connect the PoE port to a PD device that supports the PoE power - supply function, such as a PoE - enabled camera, as shown in below.



Notice:

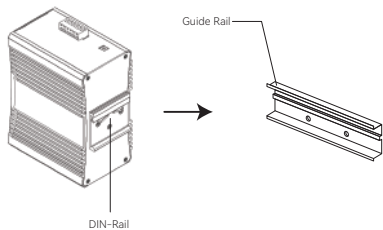
- Do not install the device with power on.
- Before using the device, please read the instruction manual carefully and operate it in a standardized manner.
- This device needs to be grounded when in use.
- Do not place this device on an unstable box or table. Once it falls, it will cause serious damage.
- Sufficient space (more than 5cm) should be reserved around this device for normal heat dissipation.
- Do not place heavy objects on this device.

4 Product Installation

This product is suitable for safe use in waterproof enclosures.

4.1 DIN-Rail Installation

Mount the product onto the backplate using the DIN rail, as shown in the figure below.



Note:

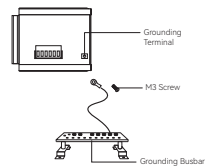
If outdoor use is required, please use it with an outdoor waterproof enclosures.

To ensure better surge protection for outdoor PD devices, it is recommended to use PROCET Ethernet surge protection products.

4.2 Grounding Installation

The following grounding solutions are summarized from extensive construction practices of the PROCET 8-port rail-mounted PoE switch PT-PIS8PB2SM-E, and are for reference only in the grounding construction of this product:

If this product is installed in a computer room, it can be connected to the special grounding busbar in the computer room. The grounding busbar is a connecting conductor between the building's grounding bodies. Currently, there are flat iron, flat steel, nano - material conductors, copper - clad steel, etc. Connect the device to the grounding busbar with a grounding wire, as shown in below.



In an environment without special grounding equipment, for the safety of personnel and equipment, we can build a simple ground (as shown in below):

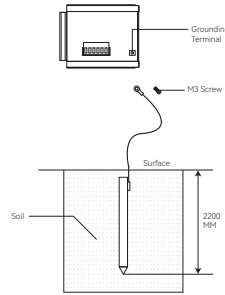
Prepare a 6 mm grounding wire or braided soft copper wire.

Prepare a copper pipe, angle iron, or other metal pipe and bury it more than one meter underground as a ground wire.

Use the grounding wire to connect the grounding terminal outside the product to the metal pipe (or angle iron).

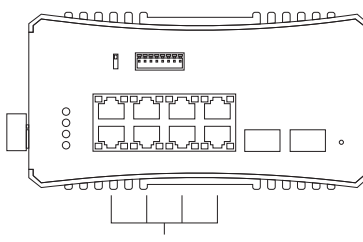
Note:

If there is really no available environment, you can choose to connect a galvanized metal pipe buried more than one meter underground for emergency grounding, such as a sewage pipe or a drainage pipe, according to the method of simple grounding.



4.3 Interface Connection

8 PoE Ports (as shown in below):



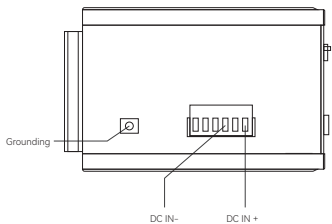
DC IN Port Connection Schematic (as shown in the figure below):
The DC input port is connected via a Phoenix terminal.

Recommended Cable Specifications
Insulation Material: Use PVC insulated wires compliant with UL1007 standard, with a temperature resistance rating of 80℃.
Cross-sectional Area Selection:

≤10A：2.5mm² （14AWG）

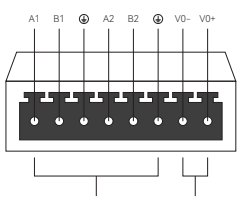
10~20A: 4mm² （12AWG）

Shielding Requirement: Twisted-pair shielded cables are recommended.



Notes:
The DC output port must be connected strictly in accordance with the instructions in this manual.

DC OUT & RS485 Port （See as below firgure）



The PIN definitions are as follows in the table:

PIN #	Definition	Remarks
1	A1	PIN for RS485-1 signal
2	B1	PIN for RS485-1 signal
3	EARTH	EARTH pin
4	A2	PIN for RS485-2 signal
5	B2	PIN for RS485-2 signal
6	EARTH	EARTH pin
7	VO-	DC OUT negative pole
8	VO+	DC OUT positive pole

Connect the pins of each Phoenix terminal using an 8-core cable as shown in the table above.
A DIP switch is used, with three positions: up, middle, and down.

When the DIP switch is in the up position, the DC OUT port output is turned off.

When the DIP switch is in the middle position, the DC OUT port outputs 12V DC.

When the DIP switch is in the down position, the DC OUT port outputs 24V DC.