

User Manual for DIN-Rail PoE Switch

PT-PIS8PB2SM-E PT-PIS8PB2SM-RS-E

Product Positioning

This DIN-rail industrial switch features 2 SFP ports (2.5G/1G) and 8 Ethernet ports, supporting wide-temperature operation from -40°C to 65°C. 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.

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.

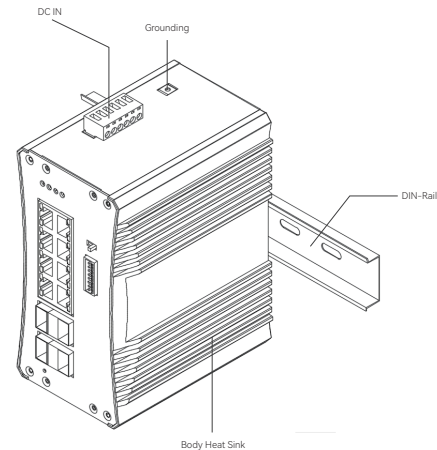
DIN-Rail Mounting: Standard DIN-rail design allows quick installation in cabinets or control boxes, saving space and simplifying maintenance.

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

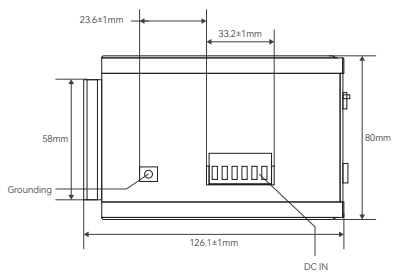
Appearance

- Main Product:

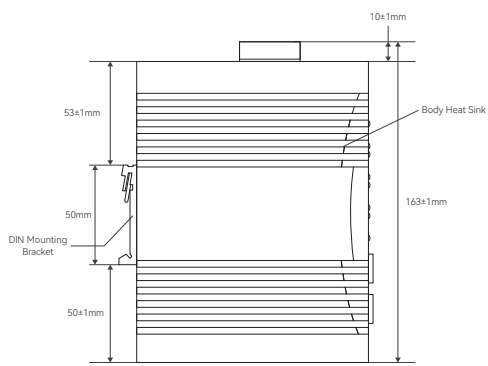
Perspective View(Installed)



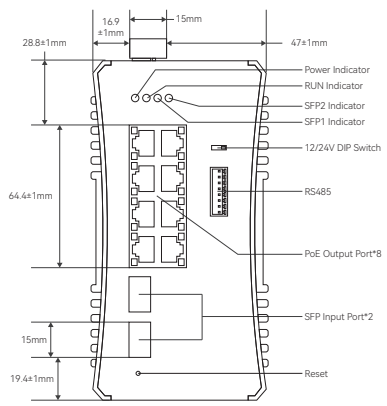
Top View



Side View



Bottom View



Electrical Parameters

Item	PT-PIS8PB2SM-E	PT-PIS8PB2SM-RS-E
Ports	DC IN*1 SFP*2 PoE*8 Grounding*1	
DC & 485 Port	-	8PIN interface, 2PIN DC OUT port provides 12Vdc/24Vdc 2A switching option, 2 * 2PIN RS485 interfaces
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	

PoE Characteristics

Item	PT-PIS8PB2SM-E	PT-PIS8PB2SM-RS-E
PoE Standard	IEEE802.3af Power over Ethernet IEEE802.3af Power over Ethernet IEEE802.3af Power over Ethernet	
Power Pins	4/5(+),7/8(-) & 3/6(+),1/2(-)	
PoE Output	55Vdc 1.64A 90W Max per port	

Switching Characteristics

Item	PT-PIS8PB2SM-E	PT-PIS8PB2SM-RS-E
Switching Mode	Store-and-Forward	
VLAN	Support 4096 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: 100/1000/2500Mbps	
Backplane Bandwidth	26Gbps	
MAC Addr. Capacity	16K	
Packet Forward Rate	19.344Mpps	
MAC Addr. Table	Follow IEEE 802.1d standard. Support MAC address auto - learning and aging	
Qos	Support high - speed, non - blocking four - traffic - class QoS structure	

Physical Characteristics

Item	PT-PIS8PB2SM-E	PT-PIS8PB2SM-RS-E
Housing Material	Aluminum alloy + Steel Support Plate	
Installation	DIN-Rail - mounting	
IP Rate	IP40	
Dimensions	153mm X 118mm(including the buckle 129.1mm) X 80mm	
Weight	1671g	

Environmental Parameters

Item	PT-PIS8PB2SM-E	PT-PIS8PB2SM-RS-E
Op Temp	-40℃ — 65℃	
Op Humid	5%-90%, non-condensing	
Op Alt	Up to 5000m	
Stor Temp	-40℃ — 85℃	
Stor Humid	5%-95%, non-condensing	

Compliance Certifications

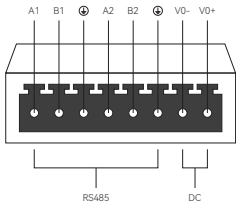
Safety Standard: IEC 60950-22 (Information Technology Equipment Safety)

Environmental Standard: RoHS (Restriction of Hazardous Substances)

Connection and Installation

• Connection

DC&RS485 Connection: Recommended Cable Specifications. Insulation Material: Use PVC insulated wires compliant with UL1007 standard, with a temperature resistance rating of 80°C. 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	RS485 ground pin
4	A2	PIN for RS485-2 signal
5	B2	PIN for RS485-2 signal
6	EARTH	RS485 grounding pin
7	VO-	DC negative pole
8	VO+	DC positive pole

• Installation

DIN-Rail Mounting: Mount the product onto the backplate using the DIN rail, as shown in the figure below.

