

Level VI Energy Efficiency PoE Injector

Datasheet

PT-PSE104GB-VI

PT-PSE104GBN-VI

PT-PSE104GB-10-VI

PT-PSE104GBN-10-VI



Contents

1 Product Introduction	05
1.1 Product Positioning.....	05
1.2 Product Features.....	05
1.3 Product Appearance.....	07
2 Product Specifications	10
2.1 Electrical Parameters.....	10
2.2 PoE Characteristics.....	10
2.3 Physical Characteristics.....	11
2.4 Environmental Parameters.....	12
2.5 Compliance Certifications.....	12
3 Installation Preparation	14
3.1 Items Required for Installation.....	14
3.2 Equipment Inspection.....	14
4 Installation Guide	16
4.1 Fixed Installation.....	16

Declaration

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Document History

Version	Date	Notes
v1.0	2025/07/19	First Version Release

For Whom

This manual is intended for:

Network Engineers

Network Administrators

Field Technicians

Model Comparison Chart

Item	PT-PSE104GB-VI	PT-PSE104GBN-VI	PT-PSE104GB-10-VI	PT-PSE104GBN-10-VI
PoE Std.	IEEE802.3af IEEE802.3at IEEE802.3bt	Passive	IEEE802.3af IEEE802.3at IEEE802.3bt	Passive
Ports	AC Input*1 PoE*1 LAN*1			
Input Volt.	100-240Vac 50/60Hz			
Input Curr.	115VAC: 1.5A Max 230VAC: 0.75A Max			
Power Pins	4/5(+),7/8(-) and 3/6(+),1/2(-)			
Data Rate	100/1000Mbps		1G/2.5G/5G/10Gbps	
Cert.	CE/FCC/ERP			
IP Rate	IP40			
Size	145.5mm*65.8mm*33.5mm			

1 Product Introduction

1.1 Product Positioning

This series is a single-port centralized remote high-power PoE injector, compliant with ERP Energy Efficiency Class VI, for indoor use.

Featuring wide-temperature design (-40°C to 40°C), it stably delivers 55Vdc (1.1A) to remote devices. Supporting 10/100/1000Mbps/2.5G/5G/10G rates, it achieves 100m max transmission distance with Cat5e/Cat6 cables via 4,5(+)/7,8(-) and 3,6(+)/1,2(-) wiring for stable power supply.

Ideal for 60W devices (wireless APs, IP cameras, IP phones, etc.), it fully meets IEEE802.3af/at/bt. With intelligent power management, it auto-detects PDs, matches output power, and enables plug-and-play operation.

Operating on 100–240Vac, its built-in chip identifies 802.3af/at/bt-compliant devices, supplying power only to standard ones for safety. It simplifies wiring, eliminating power socket constraints for flexible installation.

1.2 Product Features

Energy Efficiency Class VI: Compliant with ERP energy efficiency standards, featuring low no-load power consumption ($\leq 0.21\text{W}$) and high efficiency (over 88%).

Wide input voltage: Supports input within the full voltage range of 100–240Vac.

Detection Resistor: 15–33K Ω .

High Power Supply: PoE output supports IEEE 802.3af/at/bt standards, with a maximum output power of 60W, capable of driving high-power devices.

User-Friendly: Automatically detects and identifies powered devices, matches the required output power, plug-and-play with no configuration needed.

Wide Temperature Design: Supports full-load operation at temperatures ranging from -40°C to 40°C.

Wall-Mount Installation: Equipped with two mounting holes for easy installation during project deployment.

Compact Size: The compact design allows for easy installation on WLAN access points and IP cameras.

Protection Features: Over-current, over-voltage, over-temperature, and short-circuit protection.

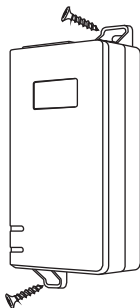
Safety: Low-power devices receive only the power they require. Automatically detects and protects non-standard Ethernet terminals.

Limited Power Source: LPS.

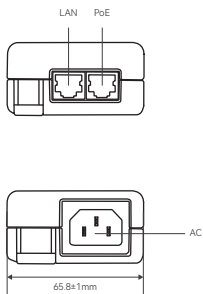
Certifications: Complies with CE, FCC, and ERP certifications.

1.3 Product Appearance

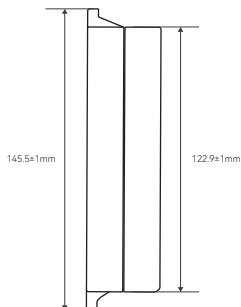
- Perspective View (Installed)



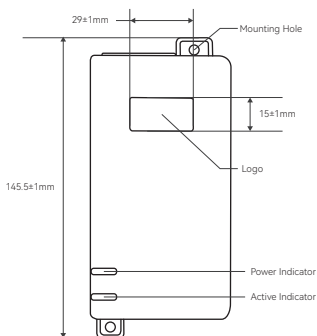
- Top View



- Side View



• Front View



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.
ACTIVE Indicator	Solid Green	PoE power supply.
	Off	The port is not connected to the device or the connection fails.

2 Product Specifications

2.1 Electrical Parameters

Item	PT-PSE104GB-VI	PT-PSE104GBN-VI	PT-PSE104GB-10-VI	PT-PSE104GBN-10-VI
Ports	AC Input*1 (C14) PoE*1 LAN*1			
Input Volt.	100-240Vac 47-63Hz			
Input Current	115VAC: 1.5A Max 230VAC: 0.75A Max			
Surge Current	115VAC: 30A Max 230VAC: 60A Max			
115VAC & 230VAC NLPC	$\leq 0.21W$			
115VAC & 230VAC Efficiency	$\geq 88\%$			
230VAC 10% Load	$\geq 79\%$			
OVP	$< 60V$			
OCP	$\leq 1.3A$			
SCP	Automatic recovery after output shutdown			
SP	AC port common mode: 2KV differential mode: 1KV			
PoE Output	55VDC 1.1A 60W Max			
Ripple(Max)	200mV			
Line Regulation	$\leq 2\%$			
Load Regulation	$\leq 2\%$			
Certification	CE/FCC/ERP			
Reliability	MTBF: 200,000hrs. @25°C			

Item	PT-PSE104GB-VI	PT-PSE104GBN-VI	PT-PSE104GB-10-VI	PT-PSE104GBN-10-VI
Energy Efficiency Standards	ErP/Ecodesign Directive 2009/125/EC – Regulation EU 2019/1782 Compliant			
Insulation Withstand Voltage	L to N:AC 1500V 1MIN, <10mA L&N to Output:AC 3000V 1MIN, <10mA L&N to enclosure:AC 3000V 1MIN, <10mA			
IR	DC 500V \geq 100M			
Safety Std.	GB 4943.1-2022, UL/CUL/EN/IEC62368-1, FCC, CE			
EMI Std.	GB9254 CLASS B/GB 17625.1-2022 A, FCC CFR47 PART15 CLASS B, EN55024/EN55032 CLASS B, CISPR 22 CLASS B			
EMS Std.	IEC61000-4-2: (Contact:±6kV, Air:±8kV), IEC61000-4-3, IEC61000-4-4, IEC61000-4-5 (2KV/L-PE N-PE, 1KV/L-L), IEC61000-4-6, IEC61000-4-11			

2.2 PoE Characteristics

Item	PT-PSE104GB-VI	PT-PSE104GBN-VI	PT-PSE104GB-10-VI	PT-PSE104GBN-10-VI
PoE Standard	IEEE802.3af IEEE802.3at IEEE802.3bt	Passive	IEEE802.3af IEEE802.3at IEEE802.3bt	Passive
Data Rate	100/1000Mbps		1G/2.5G/5G/10Gbps	
Network Protocol	IEEE802.3 IEEE802.3u IEEE802.3ab		IEEE802.3 IEEE802.3u IEEE802.3ab IEEE802.3bz	
Power Pins	4/5(+),7/8(-) and 3/6(+),1/2(-)			
PoE Output	55Vdc 1.1A 60W Max			

2.3 Physical Characteristics

Item	PT-PSE104GB-VI	PT-PSE104GBN-VI	PT-PSE104GB-10-VI	PT-PSE104GBN-10-VI
Enclosure	Plastic			
Installation	Wall-Mounted Installation			
Size	145.5mm * 65.8mm * 33.5mm			
Weight	262.1g	256.9g	262.1g	256.9g
IP Rate	IP40			

2.4 Environmental Parameters

Item	PT-PSE104GB-VI	PT-PSE104GBN-VI	PT-PSE104GB-10-VI	PT-PSE104GBN-10-VI
Op. Temp	-40°C to 40°C			
Op. Humid.	20%-80%, non - condensing			
Op. Altitude	Below 5000 meters			
Stor. Temp.	-40°C to 70°C			
Stor. Humid.	10%-90%, non - condensing			

2.5 Compliance Certifications

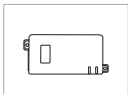
Safety Standard: IEC 60950-22 (Information Technology Equipment Safety)

Environmental Standard: RoHS (Restriction of Hazardous Substances)

3 Installation Preparation

3.1 Items Required for Installation

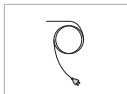
When installing the device, the following items are required. These items are assembled in the product packaging box.



PT-PSE104GBx-VI



User Manual

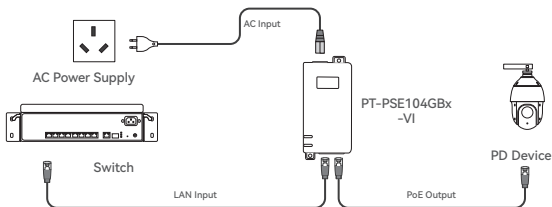


Power Cord

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 AC port, connect the LAN 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 while it is powered on.
 - Please make sure to read the user manual carefully before using the device and operate it according to the instructions.
 - Do not place the device on an unstable surface such as a shaky box or table, as it may fall and become seriously damaged.
 - Ensure that there is sufficient space (at least 5 cm) around the device to allow for proper heat dissipation.
 - Do not place heavy objects on top of the device.
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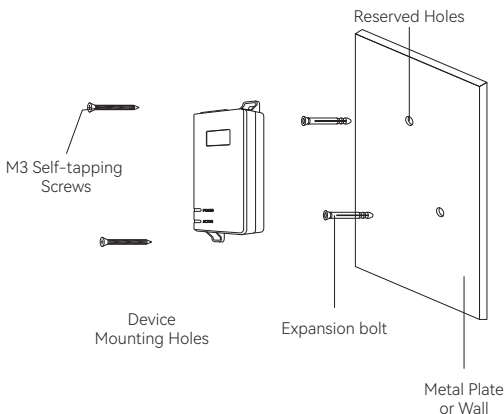
4 Product Installation

This product is suitable for safe use in waterproof boxes and similar environments.

4.1 Fixed Installation

Fixing the device in place ensures stable operation.

1. Drill holes at the selected installation location;
2. Use the provided mounting screws (M3 self-tapping screws) to secure the device (can be fixed to a metal plate or wall using expansion bolts and matching rubber plugs), as shown below:



Notice:

For outdoor use, please equip the product with a waterproof box.

To ensure better lightning protection for outdoor PDs, it is recommended to use PROCET's outdoor lightning protection products.

