

Level VI Energy Efficiency PoE Injector

Datasheet

PT-PSE100GFROA
PT-PSE100GFROA-10



Contents

1 Product Introduction	05
1.1 Product Positioning.....	05
1.2 Product Features.....	05
1.3 Product Appearance.....	06
2 Product Specifications	09
2.1 Electrical Parameters.....	09
2.2 PoE Characteristics.....	09
2.3 Physical Characteristics.....	10
2.4 Environmental Parameters.....	10
2.5 Compliance Certifications.....	10
3 Installation Preparation	11
3.1 Items Required for Installation.....	11
3.2 Equipment Inspection.....	11
4 Installation Guide	13
4.1 Fixed Installation.....	13

Declaration

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Document History

Version	Date	Notes
v1.0	2025/09/17	First Version Release

For Whom

This manual is intended for:

- Network Engineers
- Network Administrators
- Field Technicians

Model Comparison Chart

Item	PT-PSE100GFROA	PT-PSE100GFROA-10
PoE Std.	IEEE802.3af Power over Ethernet	
Ports	AC Input*1 PoE*1 LAN*1	
Input Volt.	90~264Vac 50/60Hz	
PoE Out.	48Vdc 0.32A 15.4W Max	
Power Pins	4/5(+),7/8(-)	
Data Rate	100/1000Mbps	1G/2.5G/5G/10Gbps
Cert.	CE/FCC/ERP	
IP Rate	IP40	
Size	124.05mm*56mm*31mm	

1 Product Introduction

1.1 Product Positioning

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

Featuring wide-temperature design (-40°C to 65°C), it stably delivers 48Vdc (0.32A) 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(-) wiring for stable power supply.

Ideal for 15.4W devices (wireless APs, IP cameras, IP phones, etc.), it fully meets IEEE802.3af. With intelligent power management, it auto-detects PDs, matches output power, and enables plug-and-play operation.

Operating on 90-264Vac, its built-in chip identifies 802.3af-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 ($\leq 0.1\text{W}$) and high efficiency (over 85%).

Wide input voltage: Supports input within the full voltage range of 90-264Vac.

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 65°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.

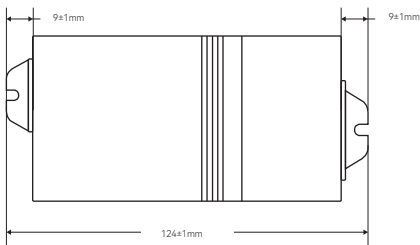
Protection Features: Over-current, over-voltage, over-temperature, and short-circuit protection.

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

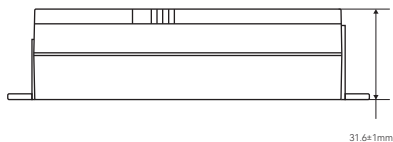
Certifications: Complies with CE, FCC, and ERP certifications.

1.3 Product Appearance

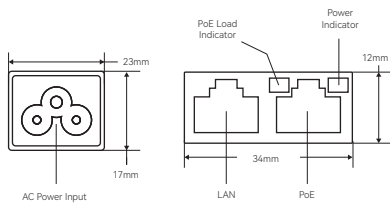
- Top View



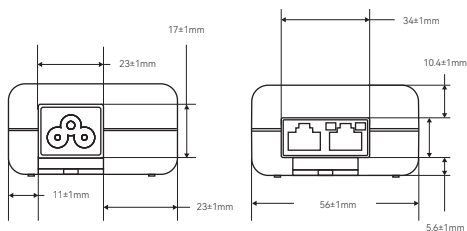
- Side View



- Ports



• Front View



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

Item	Status	Description
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.

2 Product Specifications

2.1 Electrical Parameters

Item	PT-PSE100GFROA	PT-PSE100GFROA-10
Ports	AC Input *1 PoE*1 LAN*1	
PoE Std.	IEEE802.3af Power over Ethernet	
Input	90-264Vac	
PoE Out.	48Vdc 0.32A 15.4W Max	
Power Pins	4/5(+),7/8(-)	
EER	≥85%	
NLPC	≤0.1W	
Surge Protection	AC Port - Common Mode: 6KV Differential Mode: 4KV PoE Port - Common Mode: 6KV Differential Mode: 1.5KV	
Data Rate	100/1000Mbps	100/1000Mbps 2.5G/5G/10Gbps

2.2 PoE Characteristics

Item	PT-PSE100GFROA	PT-PSE100GFROA-10
PoE Std.	IEEE802.3af/at Power over Ethernet	
PoE Out.	48Vdc 0.32A 15.4W Max	
Power Pins	4/5(+),7/8(-)	
Data Rate	100/1000Mbps	100/1000Mbps 2.5G/5G/10Gbps
Network Protocol	IEEE802.3 10Base-T Ethernet IEEE802.3u 100Base-Tx Fast Ethernet IEEE802.3ab Gigabit Ethernet	IEEE802.3 10Base-T Ethernet IEEE802.3u 100Base-Tx Fast Ethernet IEEE802.3ab Gigabit Ethernet IEEE802.3bz 2.5/5/10GbE NBASE-T

2.3 Physical Characteristics

Item	PT-PSE100GFROA	PT-PSE100GFROA-10
Enclosure	Black Plastic	
Installation	Wall-Mounted Installation	
Size	124.05mm * 56mm * 31mm	
Weight	146g	
IP Rate	IP40	

2.4 Environmental Parameters

Item	PT-PSE100GFROA	PT-PSE100GFROA-10
Op. Temp	-40°C to 65°C	
Op. Humid.	20%-80%, non - condensing	
Op. Altitude	Below 5000 meters	
Stor. Temp.	-40°C to 85°C	
Stor. Humid.	10%-90%, non - condensing	

2.5 Compliance Certifications

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

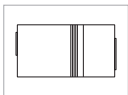
EMC Standards: CE、FCC (Electromagnetic Compatibility)

Environmental Standard: RoHS (Restriction of Hazardous Substances)

3 Installation Preparation

3.1 Items Required for Installation

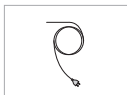
When installing the device, the following items are required. These items are assembled in the product packaging box.



PT-PSE100GFROA-x



User Manual

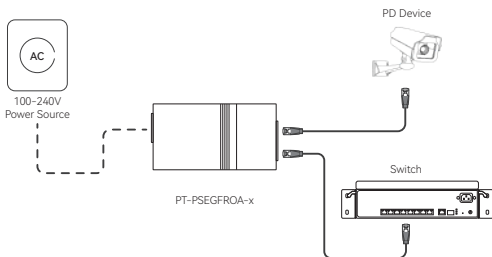


Power Cord

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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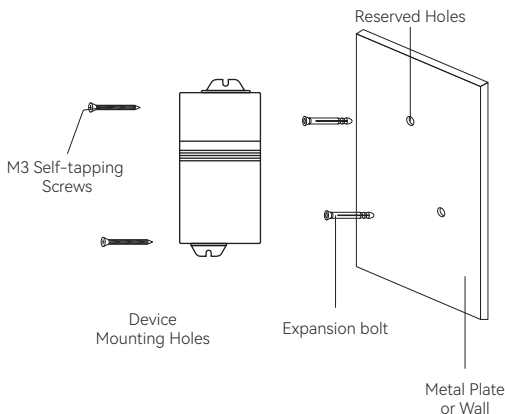
4 Product Installation

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.

