

Level VI Energy Efficiency PoE Injector

Datasheet

PT-PSE101GROA-VI
PT-PSE101GROA-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	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 Product Installation	13
4.1 Fixed Installation.....	13

Declaration

Copyright Notice

Copyright ©2025 Creative Lianjie Network Technology Co.Ltd

All rights reserved.

Without the prior consent of PROCET, no organization or individual is permitted to imitate, reproduce, plagiarize, or translate any part or all of this manual, nor to distribute it in any form (electronic, photocopying, recording, etc.) for commercial purposes.

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.

Trademark Notice

PROCET is a registered trademark of Beijing Creative Lianjie Network Technology Co., Ltd.

All other trademarks or registered trademarks mentioned in this document are the property of their respective owners.

Disclaimer

The products, services, or features you purchase are governed by the commercial contracts and terms of PROCET. The content of this document may not fall within the scope of your purchase or use. Unless otherwise specified in the contract, PROCET makes no express or implied representations or warranties regarding the contents of this document.

Due to product updates or other reasons, the contents of this document are subject to change without prior notice, and any necessary corrections will be incorporated in subsequent versions. Unless otherwise agreed, this document is provided for guidance only and does not constitute any express or implied warranty.

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-PSE101GROA-VI	PT-PSE101GROA-10-VI
PoE Std.	IEEE802.3af Power over Ethernet IEEE802.3at Power over Ethernet	
Ports	AC Input*1 PoE*1 LAN*1	
Input Volt.	90-264Vac 50/60Hz	
PoE Out.	55Vdc 0.55A 30W Max	
Power Pins	4/5(+),7/8(-)	
Data Rate	100/1000Mbps	1G/2.5G/5G/10Gbps
Cert.	CE/FCC/ERP	
IP Rate	IP40	
Size	139.5mm*62.5mm*32.5mm	

1 Product Introduction

1.1 Product Positioning

The PT-PSE101GROA-x-VI series is a line of compact, single-port PoE injectors designed to deliver up to 30W of output power to IEEE 802.3at-compliant Powered Devices, including IP cameras, wireless access points, IoT devices, POS terminals, and digital displays.

The series is ERP Energy Efficiency Class VI compliant, ensuring reduced power consumption and high operational efficiency. With a built-in intelligent detection chip, the injectors automatically identify and classify connected devices before delivering power, protecting non-PoE equipment from potential damage.

The product family supports flexible data rate options:

PT-PSE101GROA-VI: 10/100/1000Mbps (Gigabit Ethernet),

PT-PSE101GROA-10-VI: 1G/2.5G/5G/10Gbps (Multi-Gigabit Ethernet)

Both models support transmission distances up to 100 meters over Cat5e/Cat6 cables.

Designed for indoor deployments, the injectors feature a wide input voltage range (90–264VAC), 6kV surge protection, and a flame-retardant IP40 enclosure. They support wall-mount installation and reliable operation in harsh environments with a temperature range of -40°C to +65°C.

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 88%).

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

Wide Temperature Design: Supports full-load operation at temperatures ranging from -40°C to 65°C.

Robust Surge Protection: Offers 6kV common-mode surge protection for both AC and PoE ports; differential-mode protection is 4kV for AC ports and 1.5kV for PoE ports, enhancing durability against voltage spikes.

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

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

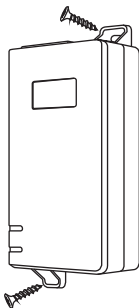
Compact Size: The compact design allows for easy installation on WLAN access points and IP cameras.

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

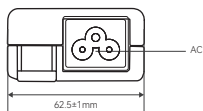
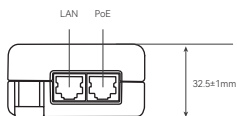
Certifications: Complies with CE, FCC, and ERP certifications.

1.3 Product Appearance

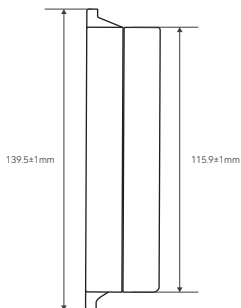
- Perspective View (Installed)



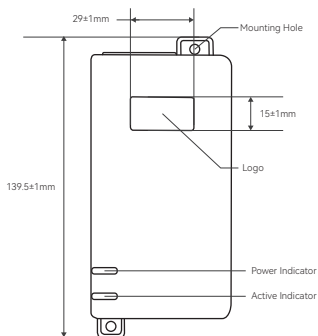
- Top View



- 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-PSE101GROA-VI	PT-PSE101GROA-10-VI
Ports	AC Input *1 PoE*1 LAN*1	
PoE Std.	IEEE802.3af/at Power over Ethernet	
Input	90-264Vac	
PoE Out.	55Vdc 0.55A 30W Max	
Power Pins	4/5(+),7/8(-)	
EER	≥88%	
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-PSE101GROA-VI	PT-PSE101GROA-10-VI
PoE Std.	IEEE802.3af/at Power over Ethernet	
PoE Out.	55Vdc 0.55A 30W 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-PSE101GROA-VI	PT-PSE109GROA-10-VI
Enclosure	Plastic	
Installation	Wall-Mounted Installation	
Size	139.5mm * 62.5mm * 32.5mm	
Weight	191g	
IP Rate	IP20	

2.4 Environmental Parameters

Item	PT-PSE101GROA-VI	PT-PSE101GROA-10-VI
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)

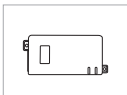
EMC Standards: CE, FCC (Electromagnetic Compatibility)

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-PSE101GROA-x-VI



User Manual

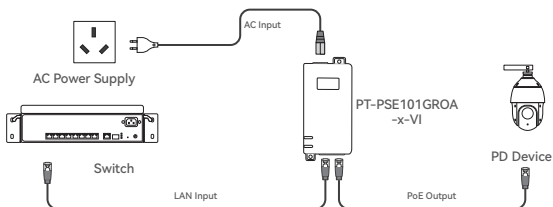


Power Cord

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.
-

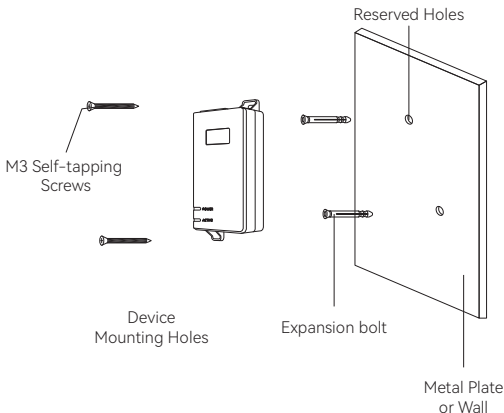
4 Product Installation

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.
