

PT-PSE105GBS-D-10 10G Fiber to 802.3bt PoE++ Converter

Quick Installation Guide



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Please do not dispose of the old product in your general household waste bin.



The symbol indicates that the product should not be discarded as unsorted waste but must be sent to separate collection facilities for recovery and recycling.

Overview

The installation Guide for PT-PSE105GBS-D-10 and mainly introduces the hardware specification, installation methods, and precautions of the installation. There may be differences in the appearance and configuration from other models. All product images in this manual are for illustration purposes only and may differ from the actual product.

This manual includes the following chapters:

1. Product Introduction. Including the basic functions and specification of PT-PSE105GBS-D-10, as well as the product appearance and applications introduction.
2. Installation Introduction. Introducing the preparation work and precautions before installing the product.
3. Product Installation. Two methods of product installation.

For Whom

Network Engineers
Network Administrators
Field Technicians

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1. Introduction

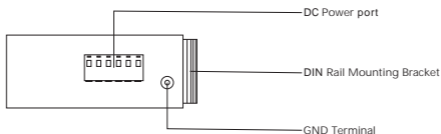
1.1 Introduction

PT-PSE105GBS-D-10 is a single-port media converter with PoE function. The single PoE output port delivers 1.75A up to 95W(max) power for remote PDs over 4 pairs. Equipped detecting chip inside which will make the PoE identification handshake with IEEE802.3af/at/bt PDs. Such as PTZ cameras, wireless APs, base stations, and other PoE-powered devices which need high power watts. Protecting non-PoE powered devices.

RJ45 port supports 100/1000Mbps, 2.5G/5G/10GbE NBase-T, while the fiber slot only supports 10GE SFP+ of optical module. Enclosed in an IP40 high-impact metal case with a DIN Rail mount bracket, designed for indoor use but can work outdoors by covering it with a waterproof case. It works with an input voltage of 50-57Vdc and operates under -40°C to +65°C. For planning purposes, the effective distance is 100 meters over Cat6 cables.

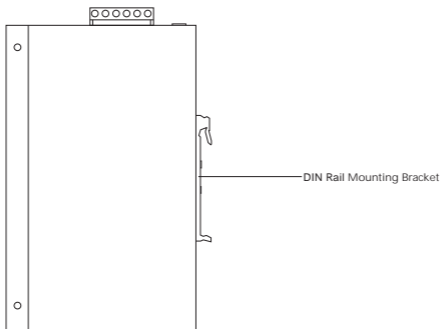
1.2 Appearance

- Upper View



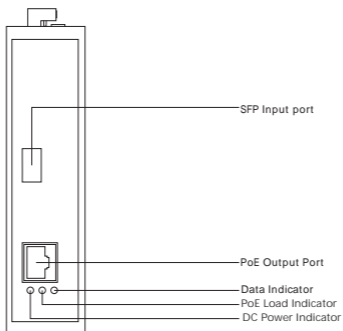
1-1 Upper View

• Side View



1-2 Side View

• Front View



1-3 Front View

1.3 Specification

Items	Description
Input	50-57Vdc 2.0A
Output	48-55Vdc 1750mA
Power Pins	4/5(+), 7/8(-) & 3/6(+), 1/2(-)
PoE Standard	IEEE802.3af/at/bt
Data Speed	100M/1000M/2.5G/5G/10G, 10G SFP+
Work Temp.	-40 to 65
Operating Humidity	20%-80% , non-condensation
Operating Altitude	Up to 5000M
Storage Temp.	-40 to 85
Storage Humidity	10%-90% , non-condensation
Network Protocol	IEEE802.3u/ab/bz/an IEEE802.3ae
Regulatory Compliance	CE FCC
IP Rated	IP40
Dimensions & NW	144.5mm x 95mm x 35.4mm (485g)
EMC	EN 55032:2015/A11:2020
	EN 55035:2017/A11:2020

2. Installation Preparation

2.1 Package contents

Open the box of the PT-PSE105GBS-D-10 and carefully unpack it, the box should contain the following items:



PT-PSE105GBS-D-10



User manual



Ground
lug Wire & 2.5
screw

2.2 Installation toolkit

These tools may be needed during equipment installation, and should be prepared by yourself: level ruler, marking pen, craft knife, wire stripper, network pliers, impact drill, different matching drillbits, rubber hammer, cross screwdriver, wrench, ladder, etc.

2.3 Inspection

2.3.1 Connect the device to a DC Power System and check the PWR LED to ensure proper function before installation.

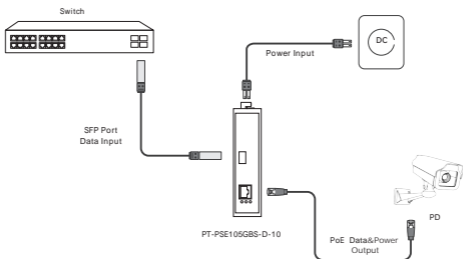
2.3.2 Connect the PoE port to the PoE powered device(PD). Such as the IP Cameras or Wireless APs.

As showed in Figure 2-1 ;



Caution:

Please use PoE powered device(PD) that complies with IEEE802.3af/at/bt to connect this product.



2-1 Device Connection

Caution :

1. Please read the instructions carefully and follow the standard operating procedures before using.
2. Please place it in a well-ventilated and dry area, and it is for indoor use only.
3. Connect the DC power cable with positive and negative wires into the DC terminal block of Procet Injector.
4. Connect a fiber cable with SFP+ optical module at 10G from your switch into the injector's SFP slot for data Input. (The optical module does not include in the package). You can choose either single-mode or multi-mode SFP transceivers.
5. Connect a CAT6 cable with the RJ45 connector into the RJ45 socket labeled PoE. On the other end of the CAT6 cable, connect to your PoE Device (such as IP Cameras etc). The total Ethernet cable length can not exceed 100 meters.
6. The device must be placed on a stable surface, preferably affixed and mounted permanently. Do not leave it "dangling" and use plugged-in cables in tension as support. Drops, falls, and impacts experienced by the injector can compromise the internal components & cause premature failure.
7. Do not place heavy objects on top of this injector. Allow at least 5cm of clearance on all sides of the device for heat ventilation / natural convection.



To ensure better lightning protection for outdoor PD, it is recommended to use PROCET Ethernet surge protection products. For more information, please visit <http://www.procetpoe.com>

3. Installation

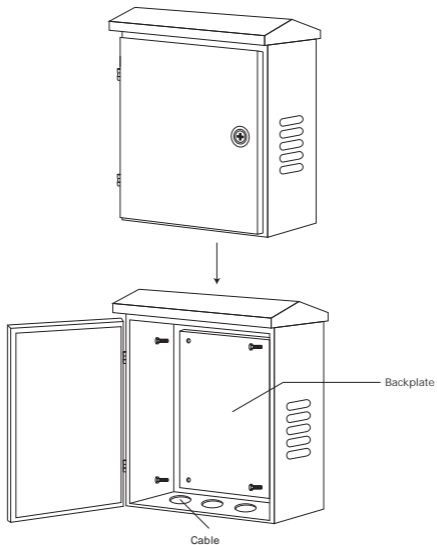
This product is safe to use for waterproof case installation and wall-mounted installation.

3.1 Installation in waterproof case

If it is placed in an outdoor environment, please install the device in a waterproof case and with a height of 45cm if possible.

3.1.1 Install the waterproof case first, and keep the case open.

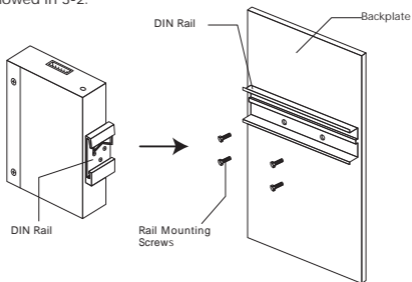
As showed in 3-1.



3-1 Waterproof case

3.1.2 Remove the metal backplate from the waterproof case and fix the DIN rail bracket on the backplate, then install this product on DIN rail bracket.

As showed in 3-2.



3-2 Installation

3.1.3 Reinstall the backplate with the installed product into the waterproof case.



Caution:

Please use the expansion bolts, when you install the product with wall-mounted way.

3.2 Connection

After installation is done, the next step is the connection. The following precautions should be taken when connecting the Ethernet cable:

3.2.1 Lay the cable according to the design requirements. The cable should be laid firmly and neatly, with no crossing, twisting, or cracking.

3.2.2 Do not lay the cable together with high-voltage pipelines, fire pipelines, or building lightning protection systems to avoid interference from strong electricity or magnetism.

3.2.3 Use PVC pipes, iron pipes, Prilka pipes, or cable trays for cable laying. The cable trays should be placed against the wall, with neat and beautiful routing. Soft hoses or elbow joints should be used at turning points. The cable trays should be secured with cable ties, hangers, and angle steels at a spacing of 1 to 1.5 meters. If a metal cable tray is used, it should be grounded at both ends.

3.2.4 For outdoor horizontal wiring, please use a slot every 6 meters under the PVC pipe as a drain to prevent water accumulation inside the pipe.

3.2.5 The wall penetration for the Ethernet cable should be sealed with waterproof and flame-retardant materials.



Caution :

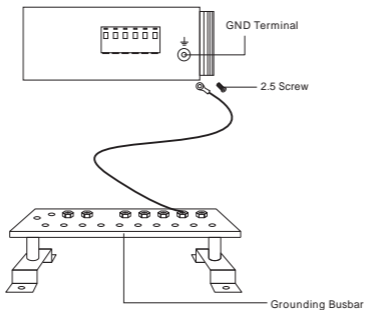
Waterproof Ethernet cables should be with a protective sheath. CAT5e/6 cables are recommended.

3.3 Grounding

PROCET PoE injector PT-PSE105GBS-D-10 has the following grounding solutions for reference during construction:

If the installation is in the computer room, it can be connected to the dedicated grounding busbar in the room. The grounding busbar is a connecting conductor between the grounding bodies of the building, such as flat iron, flat steel, nanomaterial conductors, copper-clad steel, etc.

Pls refer to the figure 3-3.



3-3 Grounding

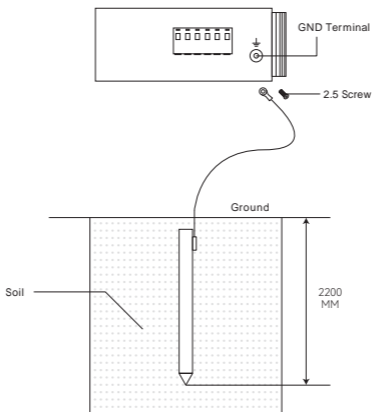
For the safety of personnel and equipment in an environment without dedicated grounding equipment, a simple grounding device can be constructed as follows:

- Prepare a 6mm² grounding wire or a braided soft copper wire.
- Prepare a copper tube or angle iron, or other metal tube, bury it underground to a depth of one meter or more as a grounding electrode.
- Use the grounding wire to connect the external grounding terminal of the product to the metal tube. (or angle iron)



Caution:

Use a galvanized metal pipe buried underground at a depth of one meter or more, such as a water or sewer pipe, as an emergency grounding if no other grounding environment is available.



3-4 Simple Grounding

3.4 Inspection

Inspect the installed equipment before putting it into operation :

- Make sure the PD is compliant with our product.
- Make sure the Ethernet cable connection is correct.

Make sure all connections are correct, and turn on the power, inspect all the indicators.

Qualification Card

PASS