1. Package Contents

Thank you for purchasing PLANET Industrial IP67 1-port 10/100/1000T 802.3bt PoE++ Injector, IPOE-175. In the following sections, the term **"Outdoor PoE Injector"** means the IPOE-175.

Open the box of the Outdoor PoE Injector and carefully unpack it. The box should contain the following items:

IPOE-175 x 1	User's Manual x 1	M22 Waterproof Cable Gland x 3
		
Power Cable with 2-pin Terminal Block x 1	Wall-mounted Kit x 1	Ground Wire x 1
		

If any of these are missing or damaged, please contact your dealer immediately; if possible, retain the carton including the original packing material, and use them again to repack the product in case there is a need to return it to us for repair.

2. Hardware Introduction

This section describes the functionalities of the outdoor PoE Injector's components.

2.1 Product Outlook

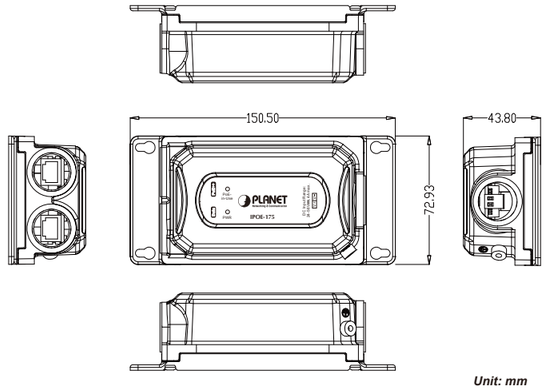


Figure 2-1: IPOE-175 product outlook

2.2 Power Input Port

Figure 2-2 shows the Power Input port side of the IPOE-175

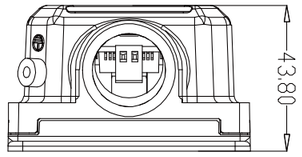


Figure 2-2: Power Input Port

2.3 Data Input Port and 802.3bt PoE++ Output Port

Figure 2-3 shows the Data Input Port and PoE++ Output Port side of the IPOE-175.

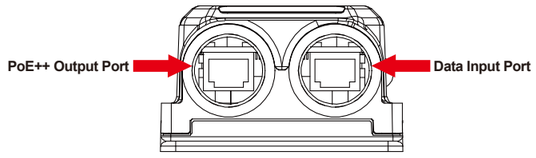


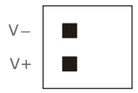
Figure 2-3: Two RJ45 Ports

2.4 LED Indicators

LED	Color	Function
PWR	Green	Indicates it has power.
PoE-in-Use	Amber	Indicates the port is providing 55V DC in-line power.

To install the 2-pin Terminal Block Connector on the **Outdoor PoE Injector**, simply follow the following steps:

Step 1: Insert positive DC power wire into V+, negative DC power wire into **V-**, and grounding wire into **Ground**.



2-pin

Step 2: Tighten the wire-clamp screws for preventing the wires from loosening and plug them into the Wall-mount Gigabit Ethernet Router.

Note

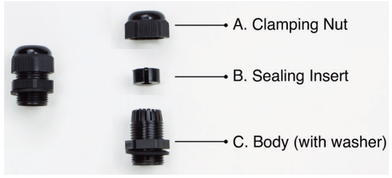
1. The wire gauge should be in the range from 20 to 22 AWG.
2. **The device must be grounded.**

3. Installation

This section describes how to install the Outdoor PoE Injector and make connections to it. Please read the following topics and perform the procedure in the order being presented.

3.1 Installing Cable Gland with Power Cable and RJ45 UTP Cable

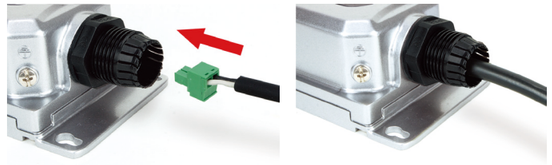
The cable gland consists of the following:



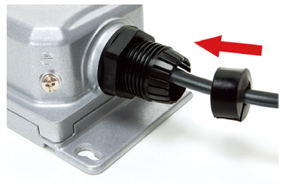
3.2 Connecting Waterproof Cable Kit to the Outdoor PoE Injector

Step 1: Turn clockwise to tighten the **gland body** connected to the Outdoor PoE Injector.

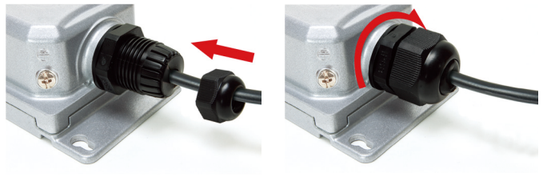
Step 2: Plug the power cable connector into the power input port.



Step 3: Insert the **sealing insert** into the cable gland body.

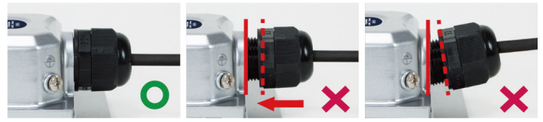


Step 4: Attach the **clamping nut** to the cable gland to complete the cable assembly.

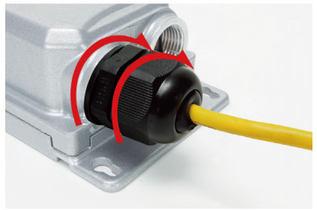


Caution

Make sure the clamping nut is tightly attached to the cable gland body and the sealing insert is squeezed tightly.

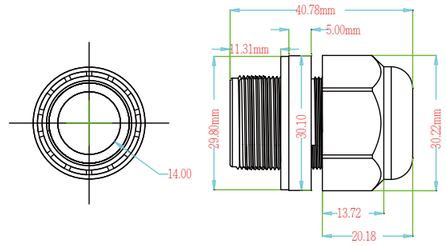


Step 5: Repeat **Steps 1** to **4** for "Data" Input Port and"PoE (Data + Power)" Output Port



Note

1. Use only the waterproof cable gland provided in the package of the IPOE-175.
2. If the above installation procedure is not properly followed, the warranty will be invalidated.



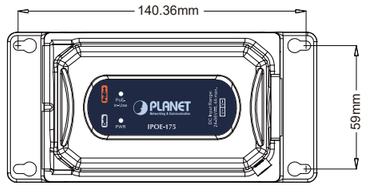
3. If the waterproof cable gland is found missing or damage, please contact your local reseller where you purchased from.
4. Never use any waterproof cable gland that is not purchased from PLANET or doesn't have the same dimensions of the IPOE-175; it will damage the device permanently.

3.3 Wall-mount Installation

To install the Outdoor PoE Injector on the wall, please follow the instructions described below.

Step 1: Find the wall that you want to mount the Outdoor PoE Injector on.

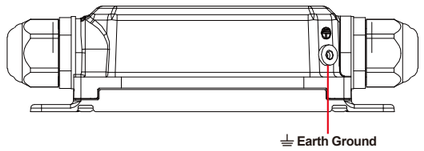
Step 2: Refer to the picture below to screw the four screws on the wall.



Step 3: Use a screwdriver to screw them into the wall.

3.4 Grounding the Device

Users **MUST** complete grounding wired with the device; otherwise, a sudden lightning could cause fatal damage to the device.

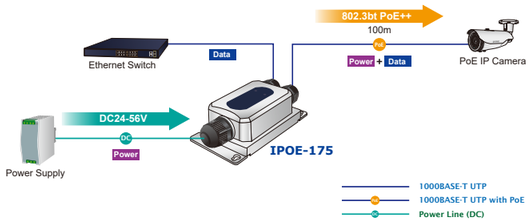


Note

EMD (Lightning) DAMAGE IS NOT CONVERED UNDER WARRANTY.

3.5 Connecting IPOE-175 to PD

Step 1: Connect the additional Cat5e/6 cable from the **PoE++ Out** of the IPOE-175 to a remote **PD**.



Step 2: The **PoE++ Out** port is the power injector which transmits DC voltage to the Cat5e/6 cable and transfer data from the Data source.

Step 3: Once the IPOE-175 detects the existence of an IEEE 802.3at/bt device or Ethernet device, the **PoE-in-Use** LED indicator will be lit steadily, showing it is providing power.

Note

According to IEEE 802.3at/bt standard, the IPOE-175 will not inject power to the cable if not connected to a standard IEEE 802.3at/bt device.

4. Product Specifications

Product		IPOE-175
Hardware Specifications		
Interface	Input Port	1 x 10/100/1000BASE-T **"Data"** in RJ45 port
	Output Port	1 x 10/100/1000BASE-T Ethernet with IEEE 802.3bt PoE++ **"Data + DC"** out RJ45 port
	Input Power Terminal Block	1 x 2-pin terminal block - Pin 1/2 for Power (Pin 1: V+ / Pin 2: V-)
Data Rate		10/100/1000Mbps
LED Indicator		PWR (Green) PoE-in-Use x 1 (Amber)
Input Voltage		24~56V DC
Power Consumption		Voltage / System on / Full Load (Max.) DC 24V / 1.2W / 72W DC 36V / 1.44W / 70.56W DC 54V / 1.71W / 65.8W DC 56V / 2.24W / 62.1W
ESD Protection		Air 8KV DC Contact 6KV DC
Surge Protection		6KV
Enclosure		IP67-rated and IK10 aluminum case
Installation		Wall-mount ear

Dimensions (W x D x H)	150 x 43.8 x 72.94 mm 169.85 x 43.8 x 72.94 mm, with cable gland
Weight	339g 373g (with three waterproof cable glands)
MTBF	>100000 hours
Network Cable	10BASE-T: UTP category 3, 5 cable (≤100m) 100BASE-TX: UTP category 5, 5e cable (≤100m) 1000BASE-T: UTP category 5e, 6 cable (≤100m)
Power over Ethernet	
PoE Standard	IEEE 802.3bt PoE++ type 3 PSE Backward compatible with IEEE 802.3at PoE+
PoE Power Supply Type	802.3bt/PoH (Power over HDBaseT) End-span/Mid-span
PoE Power Output	55V DC Max. 60 watts to 802.3bt PoE++ PD Max. 60 watts to PoH PD Max. 30 watts to 802.3at PoE+ PD
Power Pin Assignment	802.3bt/PoH: 1/2 (-), 3/6 (+), 4/5 (+), 7/8 (-) End-span: 1/2 (-), 3/6 (+) Mid-span: 4/5 (+), 7/8 (-)

Standards Conformance	
Regulatory Compliance	FCC Part 15 Class A CE
Stability Testing	IEC 60068-2-32 (Free fall) IEC 60068-2-27 (Shock) IEC 60068-2-6 (Vibration)
Standards Conformances	IEEE 802.3 10BASE-T Ethernet IEEE 802.3u 100BASE-TX Fast Ethernet IEEE 802.3ab 1000BASE-T Gigabit Ethernet IEEE 802.3af Power over Ethernet IEEE 802.3at Power over Ethernet Plus IEEE 802.3bt Power over Ethernet Plus Plus
Environment	
Operating Temperature	-40 ~ 75 degrees C
Storage Temperature	-40 ~ 85 degrees C
Humidity	5 ~ 95% (non-condensing)

Note

The PoE power output ability will depend on the distance.

PLANET Networking & Communication

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User's Manual

www.PLANET.com.tw

Industrial IP67 1-Port 60W 802.3bt PoE++ Injector

IPOE-175

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10F., No. 96, Minquan Rd., Xindian Dist., New Taipei City 231, Taiwan

2351-AH8090-000

5. Customer Support

Thank you for purchasing PLANET products. You can browse our online FAQ resource and user's manual on PLANET web site first to check if it could solve your issue. If you need more support information, please contact PLANET support team.

PLANET online FAQs:
http://www.planet.com.tw/en/support/faq.php?type=1

Support team mail address:
support@planet.com.tw