

1. Package Contents

Thank you for purchasing PLANET Industrial IEEE 802.3at High Power over Ethernet Injector, IPOE-162. The "802.3at PoE+ Injector" mentioned in this User's Manual refers to the IPOE-162.

Open the box of the Industrial IEEE 802.3at High Power over Ethernet Injector and carefully unpack it. The box should contain the following items:

- Industrial IEEE 802.3at Gigabit High Power over Ethernet Injector x 1
- User's Manual x 1
- DIN-rail Kit x 1
- Wall-mount Kit x 1
- Dust Cap x 2

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. Product Features

Interface

- 2 RJ45 interfaces
 - 1-port **Data + Power** output
 - 1-port **Data input**
- One terminal block for master and slave power input. (Power Range: 12 ~ 48V DC redundant power.)

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PoE

- Compliant with IEEE 802.3at Power over Ethernet Plus, mid-span PSE
- Backward compatible with IEEE 802.3af PoE
- IEEE 802.3at/802.3af splitter devices compatible
- Supports PoE Power up to 30 watts for the PoE port
- Provides DC 56V power over RJ45 Ethernet cable to device with Ethernet port
- Auto-detection of PoE IEEE 802.3at/802.3af devices
- Remote power feeding up to 100m

Hardware

- IP30 slim metal case
- LED indicators for power LED and PoE-in-use

Industrial Case and Installation

- DIN-rail and wall-mount designs
- Supports 6000 VDC Ethernet ESD protection
- 40 to 75 degrees C operating temperature

3. Product Specifications

Product	IPOE-162	
Hardware Specifications		
Hardware Version		
Hardware Version	3	
Interface	Input Port	1 x RJ45 STP (Data In)
	Output Port	1 x RJ45 STP (Data + Power Out)
	Input Power Terminal Block	1

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LED Indicator	System: Power 1 (Green), Power 2 (Green), Fault (Red) PoE Port: PoE-in-use x 1 (Orange)
Network Cable	10BASE-T: UTP Cat. 3, 4, 5, up to 100m (328ft) 100BASE-TX: UTP Cat. 3, 4, 5, up to 100m (328ft) 1000BASE-T: UTP Cat. 5, 5e, 6 up to 100m (328ft) EIA/TIA-568 100-ohm STP (100m)
Data Rate	10/100/1000Mbps
Dimensions (W x D x H)	32 x 87 x 135 mm
Weight	489g
Unit Input Voltage	12 ~ 48V DC
Power Consumption	32 watts max.
Number of devices that can be powered	1
Installation	DIN-rail kit and wall-mount ear
Alarm	Provides one relay output for power failure; alarm relay current carry ability: 1A @ DC 24V
Enclosure	IP30 slim metal case
Power over Ethernet	
PoE Standard	IEEE 802.3at Power over Ethernet Plus, mid-span PSE
PoE Power Output	30 watts
PoE Power Supply Type	Mid-span
Power Pin Assignment	4/5(+), 7/8(-)

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Standards Conformances		
Standards Compliance		
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		
FCC	FCC Part 15B Class A	
CE	EMI	EN 55032
	EMS	EN 55035 EN 61000-4-2 EN 61000-4-3 EN 61000-4-4 EN 61000-4-5 EN 61000-4-6 EN 61000-4-8
Stability Testing		
IEC60068-2-32 (Free fall) IEC60068-2-27 (Shock) IEC60068-2-6 (Vibration)		
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.
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4. Hardware Description

4.1 Physical Dimensions

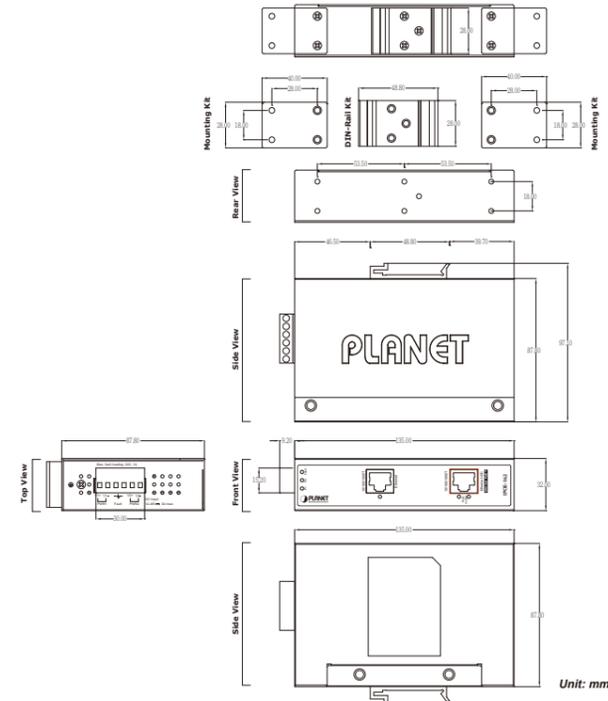


Figure 4-1: IPOE-162 dimensions

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4.2 Product Outlook



Figure 4-2: IPOE-162 outlook

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LED Indicators

LED	Color	Function
P1	Green	Indicates Power 1 has power.
P2	Green	Indicates Power 2 has power.
Fault	Red	Indicates either Power 1 or Power 2 has no power.
PoE-in-Use	Orange	Indicates the port is providing DC in-line power.

4.3 Industrial PoE+ Injector Upper Panel

The upper panel of the Industrial PoE+ Injector consists of one terminal block connector within two DC power inputs. Figure 4-3 shows the upper panel of the Industrial PoE+ Injector.

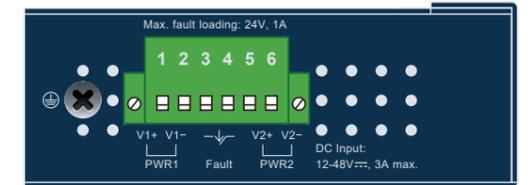


Figure 4-3: Industrial PoE+ Injector Upper Panel



PWR1 and PWR2 must provide the **same DC voltage** while operating with dual power input.

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4.4 Wiring the Power Inputs

The 6-contact terminal block connector on the top panel of Industrial PoE+ Injector is used for two DC redundant power inputs. Please follow the steps below to insert the power wire.

1. Insert the positive and negative DC power wires into Contacts 1 and 2 for Power 1, or 5 and 6 for Power 2.

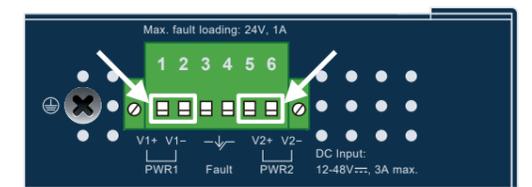


Figure 4-4: Power Input Pins

2. Tighten the wire-clamp screws for preventing the wires from loosening.

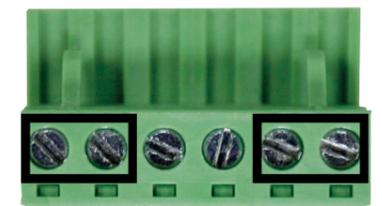


Figure 4-5: PWR1 & PWR2 Pins of Terminal Block

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The wire gauge for the terminal block should be in the range of 12 to 24 AWG.

4.5 Wiring the Fault Alarm Contact

The fault alarm contacts are in the middle of the terminal block connector as the picture shows below. Inserting the wires, the Industrial PoE+ Injector will detect the fault status of the power failure and then form an open circuit. The following illustration shows an application example for wiring the fault alarm contacts.

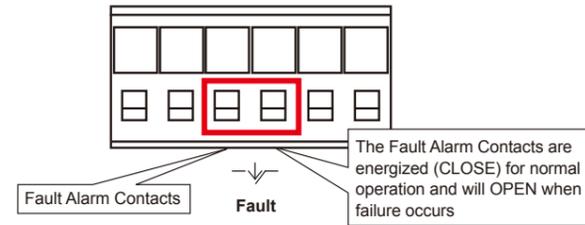


Figure 4-6: Fault Alarm Contact



1. The wire gauge for the terminal block should be in the range of 12 to 24 AWG.
2. Alarm relay circuit accepts up to a maximum of 24V, 1A currents.

5. Mounting Installation

This section describes how to install the Industrial Equipment and make connections to it. Please read the following topics and perform the procedures in the order being presented.



This following picture tells the user how to install the device, and the device is not IPOE-162.

5.1 DIN-rail Mounting

The DIN-rail bracket is already screwed on the industrial device. Please refer to the following figures for hanging the device:

Step 1: Place the upper DIN-rail bracket into the track first.



Figure 5-1: DIN-rail mounting

Step 2: The lower DIN-rail bracket is then placed into the track.



Figure 5-2: Complete DIN-rail mounting

5.2 Removal of Device

Step 1: Please refer to following procedure to remove the device from the track.



Figure 5-3: Removal of Device from Track

Step 2: Reverse the mounting steps to remove the device from the track.

5.3 Wall-mount Plate Mounting

To install the industrial device on the wall, please follow the instructions described below:

Step 1: Remove the DIN-rail bracket from the industrial device by using a screwdriver.

Step 2: Then screw the wall-mount plate on the rear panel of the industrial device.



Figure 5-4: Placing Wall-mount Plate on Industrial Device

Step 3: Use the holes in the corners of the wall-mount plate to hang the industrial device on the wall.

Step 4: To remove the wall-mount plate, reverse the steps above.



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Industrial 802.3at Gigabit PoE+ Injector

▶ IPOE-162

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

Warning:
This equipment is compliant with Class A of CISPR 32.
In a residential environment this equipment may cause radio interference.
2350-AF0390-005



6. Customer Support

Thank you for purchasing PLANET products. You can browse our online FAQ resource at PLANET Web site first to check if it could solve you issue. If you need more support information, please contact PLANET switch support team.

PLANET online FAQs:
<http://www.planet.com.tw/en/support/faq.php>

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



EC Declaration of Conformity

For the following equipment:

*Type of Product : Industrial IEEE 802.3at High Power over Ethernet Injector

*Model Number : IPOE-162

* Produced by:
Manufacturer's Name : Planet Technology Corp.
Manufacturer's Address : 10F., No.96, Minquan Rd., Xindian Dist., New Taipei City 231, Taiwan R.O.C.

is herewith confirmed to comply with the requirements set out in the Council Directive on the Approximation of the Laws of the Member States relating to Electromagnetic Compatibility Directive on (2014/30/EU).

For the evaluation regarding the EMC, the following standards were applied:

EN 55032	(2015 + AC:2016)
EN 55024	(2010 + A1: 2015)
EN 55035	(2017)

Responsible for marking this declaration if the:

Manufacturer Authorized representative established within the EU

Authorized representative established within the EU (if applicable):

Company Name: Planet Technology Corp.
Company Address: 10F., No.96, Minquan Rd., Xindian Dist., New Taipei City 231, Taiwan R.O.C.

Person responsible for making this declaration

Name, Surname: Kent Kang

Position / Title: Director

Taiwan
Place

Jan. 31, 2019
Date

Legal Signature

PLANET TECHNOLOGY CORPORATION

e-mail: sales@planet.com.tw <http://www.planet.com.tw>
10F., No.96, Minquan Rd., Xindian Dist., New Taipei City, Taiwan, R.O.C. Tel:886-2-2219-9518 Fax:886-2-2219-9528

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