

Product Specifications

Industrial Single-Port 10/100/1000Mbps 802.3bt PoE++ Splitter IPOE-173S

Version 1.0

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Change History:

Revision:	Date:	Author:	Change List
Version 1.0	2019/12/23	Keithy	Initial Release

Author:	Keithy	Editor:	Mark
Reviewed By:	Jonas	Approved By:	Kent

1. PRODUCT DESCRIPTION



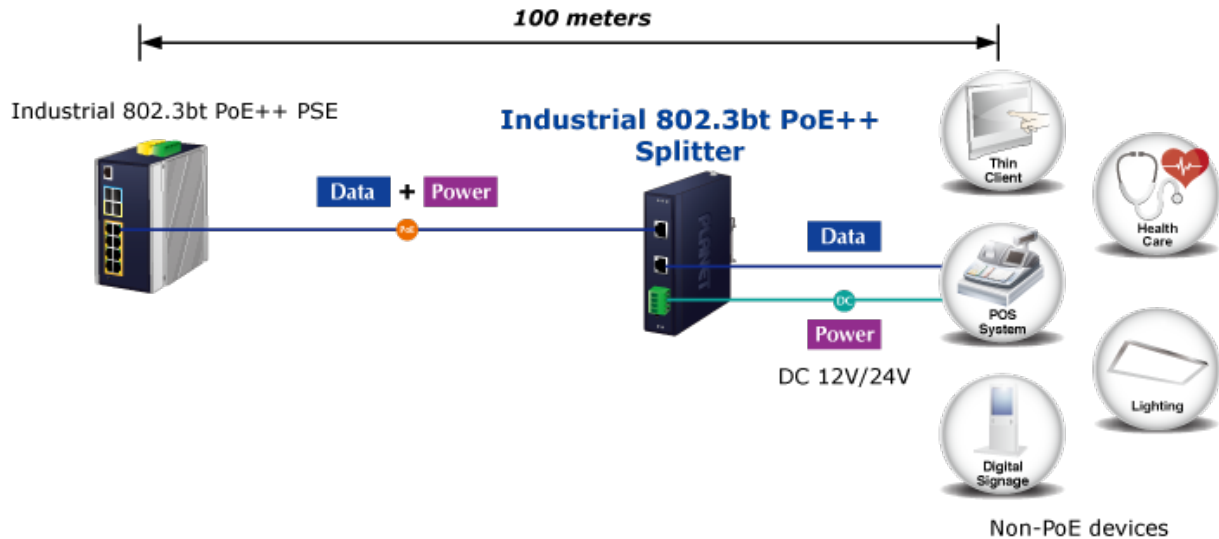
Highly Convenient and Robust Industrial PoE++ Splitter

PLANET IPOE-173S is an Industrial-grade **802.3bt** Power over Ethernet Splitter which delivers the Ethernet digital data and PoE power from an 802.3bt PoE++ type-4 PSE (power source equipment) over an UTP cable. It comes with a selectable **12V** or **24V** DC DIP switch, enabling to deliver a maximum of **70-watt** power output to a non-PoE powered Ethernet device. It supports passive 10/100/1000Mbps Ethernet connection and distance up to 100 meters. To fulfill the growing industrial applications, the IPOE-173S is designed to work under the operating temperature range from **-40 to 75 degrees C**. The IPOE-173S is an ideal solution to transfer power to a traditional network device with high power demand directly without the need to install additional power outlets and electrical cabling in the industrial environment.

Quick and Easy 802.3bt PoE++ Network Deployment

If the existing network deployment consists of non-PoE powered devices that require high power to function, the IPOE-173S, powered by an ultra PoE power sourcing equipment, is able to feed the PDs with 802.3bt PoE++ as the splitter can split the data and power into two streams. The PDs gets their power through the splitter's DC jack and the RJ45 interface accepts only Ethernet data. The following non-PoE PDs can be turned into an PoE++ environment with the IPOE-173S:

- ▶ **PTZ speed dome camera**
- ▶ **Thin client**
- ▶ **AIO (All-in-One) touch PC**
- ▶ Remote digital signage display
- ▶ Non-PoE network devices that need higher power to work normally



The IPOE-173S frees the network device deployment from restrictions of power outlet locations, thus eliminating the costs for additional AC wiring and reducing the installation time.

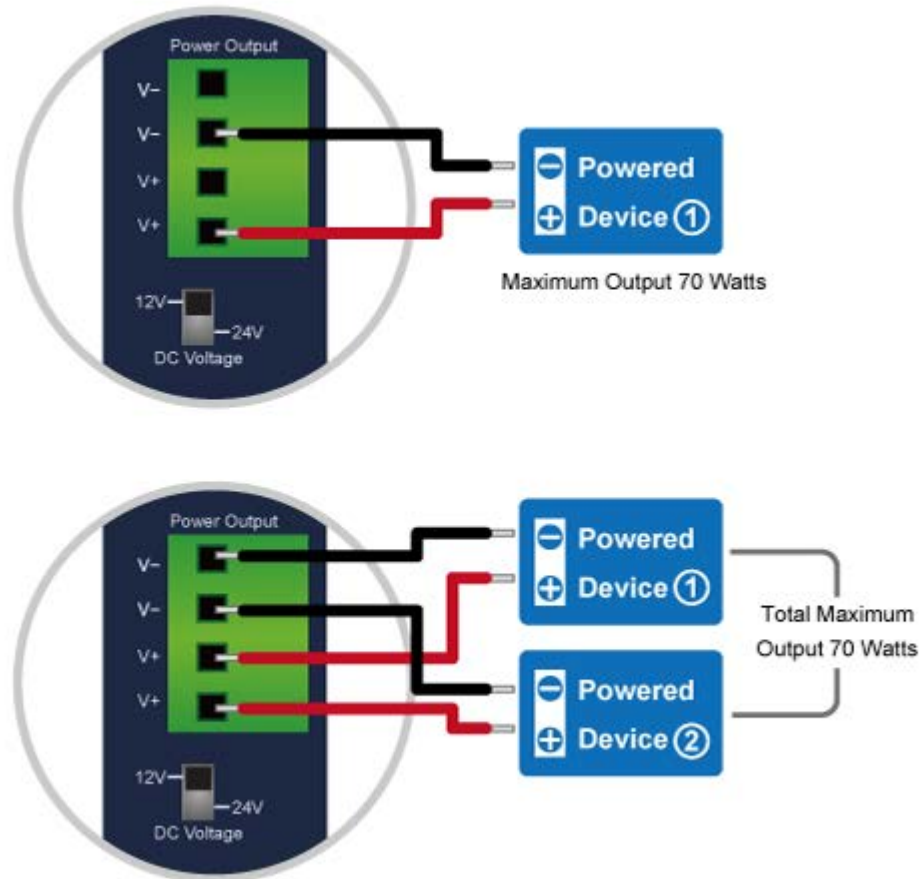
Innovative, Selectable DC Power Output Voltage

Via the innovative 12/24 volt DIP switch on the front panel, the IPOE-173S can supply either 24V DC power to industrial equipment or 12V DC output to the common network devices. It highly increases the flexibility of the product applications.

Dual Power Output Capability

The IPOE-173S shares its 70-watt output power with not only one power-hungry device but also two non-PoE Ethernet devices simultaneously through a 4-pin terminal block. For example, the two power output can be applied as shown below to completely solve the need of electric source:

- IP camera (Power 1) + Outdoor housing with fan and heater (Power 2)
- IP camera (Power 1) + Pan & Tilt motor (Power 2)
- Analog camera (Power 1) + IP video server (Power 2)



Environmentally Hardened Design

With compact, slim type IP30 industrial case, the space-saving industrial 802.3bt PoE++ splitter IPOE-173S can be placed in almost any difficult environment. It allows either DIN-rail or wall mounting for efficient use of cabinet space. Being able to operate under the temperature range from **-40 to 75 degrees C**, the IPOE-173S is the ideal product for co-working with industrial 802.3bt PoE++ type-4 injector which can feed the power to non-PoE devices up to 100 meters (328 feet) away in those harsh environments.

Intelligent LED Indicator for Power Budget

The IPOE-173S helps users to know the current status of PoE power input from remote PSE easily by its advanced LED indication. The IPOE-173S has three LEDs indicating 30, 60 and 90 watts of PoE power input. With these LED indications, you can efficiently control how much PoE power is getting from PSE and how much output power of the IPOE-173S is going to a non-PoE device.

PoE Input Display



2. PRODUCT FEATURES

Product Features

Interface

- 2 RJ45 interfaces
 - 1-port **Data + Power input**
 - 1-port **Data output**
- 2 DC output (4-pin terminal block)
- 1 12V/24V DC DIP switch

Power over Ethernet

- Complies with 802.3bt Power over Ethernet end-span / mid-span PSE
- Compatible with IEEE 802.3bt PoE++
- Backward compatible with 802.3at PoE+ with up to 30-watt power output
- Supports PoE input power up to 70 watts
- Splits the PoE power over RJ45 Ethernet cable into 12V/19V/24V DC output
- Remote power feeding up to 100 meters

Hardware

- IP30 slim metal case
- DIN rail or wall mount design
- Supports high surge/ESD protection
- -40 to 75 degrees C operating temperature

3. PRODUCT SPECIFICATIONS

3.1 MAIN COMPONENTS

PoE Power IC	LinearTech LT4295H	x 1
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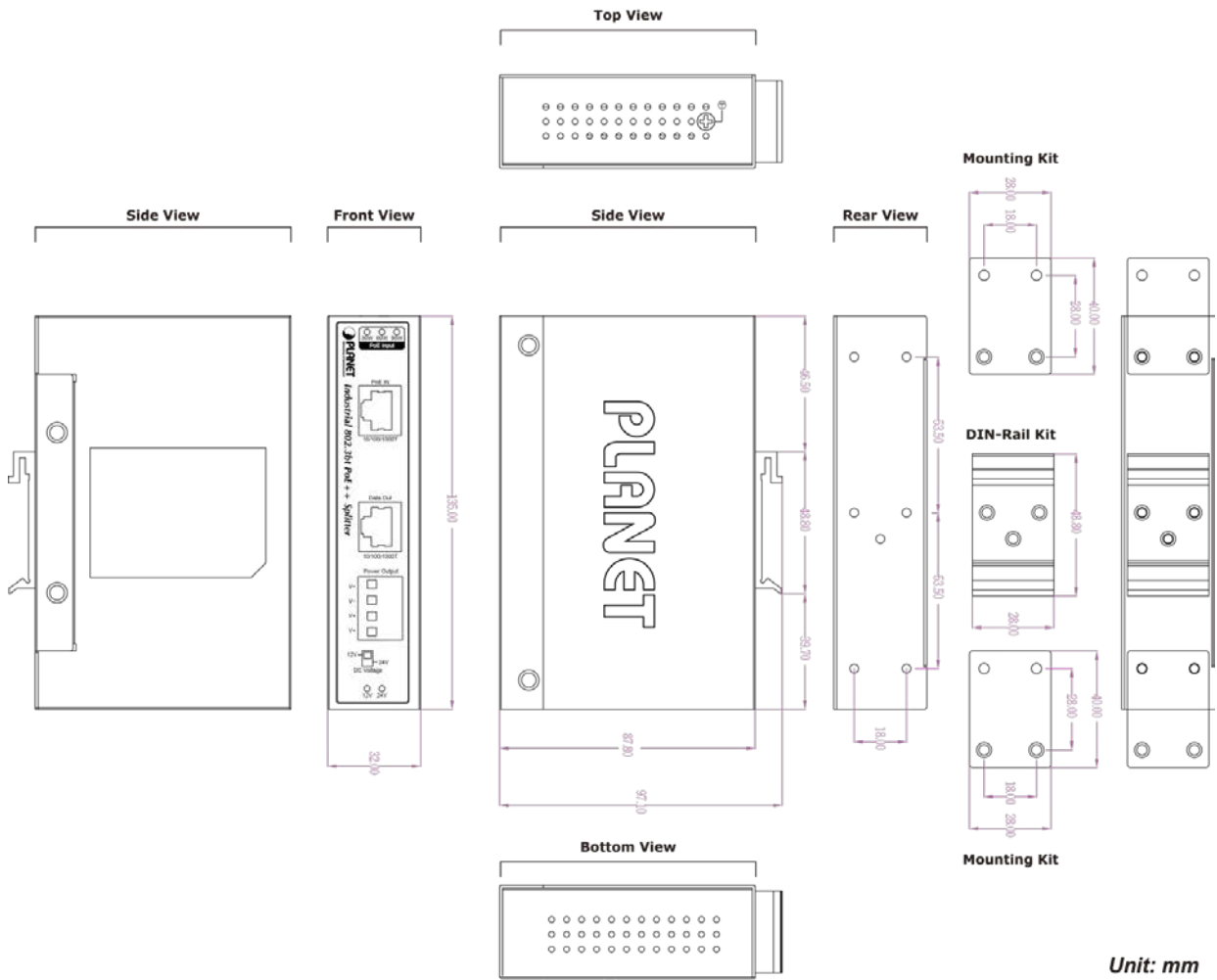
3.2 FUNCTION SPECIFICATIONS

Product		IPOE-173S
Hardware Specifications		
Interface	PoE Input Port	1 10/100/1000 BASE-T RJ45
	Data Output Port	1 10/100/1000 BASE-T RJ45
	DC Out Plug Connector	1 removable 4-pin terminal block
	DIP Switch	12V/24V DC output
LED Indicators	PoE Input: 30W (Green) 60W (Green) 90W (Green) DC Voltage: 12V (Amber) 24V (Green)	
Data Rate	10/100/1000Mbps	
Dimensions (W x D x H)	32 x 87.8 x 135 mm	
Weight	445g	
Installation	DIN-rail/wall mountable	
ESD Protection	4KV	
EFT Protection	4KV	
Enclosure	IP30 metal case	
Power Requirements	4-pair 802.3at PoE+ and 802.3bt PoE++ PoE DC 48 ~ 56V	
Power Consumption	System on with PoE input	5.4 watts
	Full loading with maximum 12V DC, 5.8A output	81.6 watts
Power Output	802.3 bt type 3 PoE++ input	12V DC, 4.5A (max.) 24V DC, 2.2A (max.)
	802.3 bt type 4 PoE++ input	12V DC, 5.8A (max.) 24V DC, 2.9A (max.)
Network Cable	802.3 bt PoE++ input	4-pair UTP Cat. 5e, 6, up to 100m (328ft)

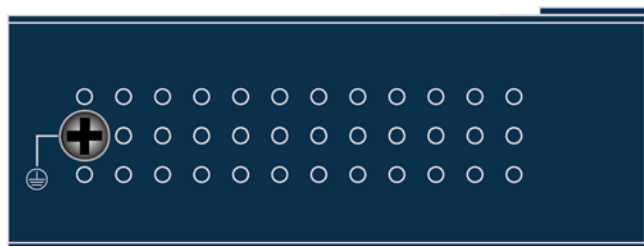
	(60W+)	
	802.3at PoE+ input (30W)	2-pair UTP Cat. 5, 5e, 6, up to 100m (328ft)
Power over Ethernet		
PoE Standard	802.3 bt PoE++ 4-pair 802.3at PoE+	
Power Output	DC 12V/24V by DIP switch control	
PoE Power Supply Type	End-span + Mid-span End-span Mid-span	
Power Pin Assignment	1/2 (+), 3/6 (-); 4/5 (+), 7/8 (-) or 1/2 (-), 3/6 (+); 4/5 (+), 7/8 (-)	
Standards Conformance		
Standards Compliance	IEEE 802.3 10BASE-T Ethernet IEEE 802.3u 100BASE-TX Fast Ethernet IEEE 802.3ab 1000BASE-T Gigabit Ethernet IEEE 802.3at Power over Ethernet Plus IEEE 802.3bt 4-pair Power over Ethernet Type 4	
Regulatory Compliance	FCC Part 15 Class A, CE	
Environment		
Operating Temperature	-40~ 75 degrees C	
Storage Temperature	-40~ 85 degrees C	
Humidity	5 ~ 95% (non-condensing)	

3.3 PHYSICAL SPECIFICATIONS:

- **Dimensions**
32 x 87.8 x 135 mm (W x D x H)
- **Weight**
445g
- **Physical Dimensions**



- **Top Panel**



- **Front Panel**



- **LED Definition:**

LED	Color	Function
30W	Green	Lights to indicate the PoE Splitter is working in 802.3at PoE mode.
60W	Green	Lights to indicate the PoE Splitter is working in 802.3bt type 3 PoE mode.
90W	Green	Lights to indicate the PoE Splitter is working in 802.3bt type 4 PoE mode.
12V	Amber	Lights to indicate the PoE Splitter's output is in 12V DC mode.
24V	Green	Lights to indicate the PoE Splitter's output is in 24V DC mode.

3.4 ENVIRONMENTAL SPECIFICATIONS

Operating:

Temperature: -40 ~ 75 degrees C

Relative Humidity: 5% ~ 95% (non-condensing)

Storage:

Temperature: -40 ~ 85 degrees C

Relative Humidity: 5% ~ 95% (non-condensing)

3.5 ELECTRICAL SPECIFICATIONS

■ **Output Voltage:** 12V/ 24V DC

■ **Power Consumption:**

Operation Mode	802.3 bt type 4 PoE++ input	Power Consumption
System on	95W	5.4 watts/18.4 BTU
Ethernet Full Loading with maximum 70W output	95W	81.6 watts/278.4 BTU

3.6 REGULATORY COMPLIANCE

- **EMI:**
 - FCC Part 15 Class A
 - CE

- **Stability Testing:**
 - IEC60068-2-32 (free fall)
 - IEC60068-2-27 (anti-shock)
 - IEC60068-2-6 (anti-vibration)

3.7 BASIC PACKAGING

- IPOE-173S x 1
- User's Manual x 1
- RJ45 Dust Cap x 2
- Wall Mount Kit x 1

3.8 PACKING INFORMATION

Box Dimensions (W x D x H):	205 x 144 x 46 mm
Box Weight:	545g
Carton Dimensions (W x D x H):	430 x 315 x 264 mm
Carton Weight:	10kg
Quantity:	20pcs in one carton