






## 1. Package Contents

Thank you for purchasing PLANET Industrial 16-port 10/100TX Fast Ethernet Switch, ISW-1600T. In the following sections, the term **"Industrial Ethernet Switch"** means the ISW-1600T.

Open the box of the Industrial Ethernet Switch and carefully unpack it. The box should contain the following items:

Industrial Ethernet Switch x 1		User's Manual x 1
		
DIN-rail Kit	RJ45 Dust Caps x 16	Wall-mount Kit
		

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.

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## 2. Product Specifications

Product	ISW-1600T
Hardware Specifications	
Fast Ethernet Copper Ports	16 10/100BASE-TX RJ45 auto-MDI/MDI-X ports
Switch Architecture	Store-and-Forward
Switch Fabric	3.2Gbps (non-blocking)
Throughput (packet per second)	2.38Mpps@ 64 bytes
Address Table	16K entries, automatic source address learning and aging
Shared Data Buffer	4Mbits
Flow Control	IEEE 802.3x pause frame for full-duplex Back pressure for half-duplex
ESD Protection	6KV DC
Enclosure	IP30 metal case
Installation	DIN-rail kit and wall-mount kit
Connector	Removable 6-pin terminal block for power input Pin 1/2 for Power 1, Pin 3/4 for fault alarm, Pin 5/6 for Power 2
Alarm	One relay output for power failure. Alarm relay current carry ability: 1A @ 24V DC
Dimensions (W x D x H)	66 x 107 x 152 mm

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Weight	255g
Power Requirements	Dual 12~48V DC, 24V AC
Power Consumption	Max. 5.3 watts/18BTU (Ethernet full loading)
Standards Conformance	
Regulatory Compliance	FCC Part 15 Class A, CE
Stability Testing	IEC60068-2-32 (free fall) IEC60068-2-27 (shock) IEC60068-2-6 (vibration)
Standards Compliance	IEEE 802.3 10BASE-T IEEE 802.3u 100BASE-TX IEEE 802.3x flow control and back pressure IEEE 802.1p Class of Service IEEE 802.3az Energy Efficient Ethernet (EEE)
Environment	
Operating Temperature	-40 ~ 75 degrees C
Storage Temperature	-40 ~ 85 degrees C
Humidity	5 ~ 95% (non-condensing)

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## 3. Hardware Introduction

### 3.1 Switch Front Panel

The front panel of the **Industrial Ethernet Switch** consists of Ethernet interfaces and LED indicators.

#### ■ Front View

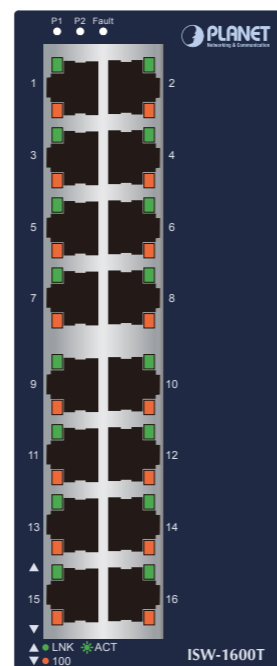


Figure 1: ISW-1600T Front View

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### 3.2 LED Definition:

#### ■ System

LED	Color	Function
DC1	Green	Lights to indicate DC power input 1 has power.
DC2	Green	Lights to indicate DC power input 2 has power.
Fault	Red	Lights to indicate that AC or DC power has failed.

#### ■ Per 10/100BASE-TX Port

LED	Color	Function
LNK/ACT	Green	Lights to indicate the link through that port is successfully established.
		Blinking to indicate that the switch is actively sending or receiving data over that port.
		Off to indicate that the port is linked down.
100 Speed	Amber	Lights to indicate that the port is operating at <b>100Mbps</b> .
		Off to indicate that the port is operating at <b>10Mbps</b> .
		Off to indicate that the port is linked down.

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### 3.3 Switch Upper Panel

The upper panel of the Industrial Ethernet Switch consists of one terminal block connector within two power input and one relay output.

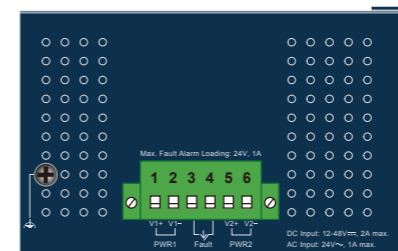


Figure 2: ISW-1600T Top View

### 3.4 Wiring the Power Inputs

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



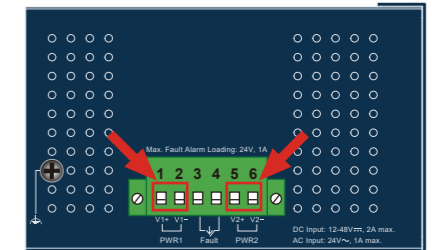
When performing any of the procedures like inserting the wires or tightening the wire-clamp screws, make sure the power is OFF to prevent from getting an electric shock.



Lorsque vous effectuez l'une des procédures telles que l'insertion des fils ou le serrage des vis de serrage, assurez-vous que l'alimentation est coupée pour éviter tout choc électrique.

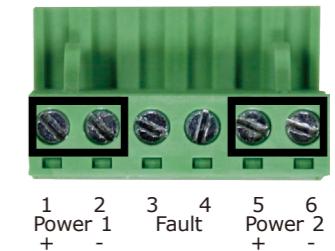
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1. Insert positive and negative DC power wires into contacts 1 and 2 for POWER 1, or contacts 5 and 6 for POWER 2.



Wire Range	Wire Type	FW	Torque In-lbs (N.m)
12-24 AWG Str/Sol	Cu	2	5 (0.56)

2. This product is intended to be supplied with a UL-listed power adapter or power source, rated 24V AC 50/60Hz min. 1A or 12-48V DC, min. 2A, and Tma 75°C (max.).
3. Tighten the wire-clamp screws for preventing the wires from loosening.



1. The power input range is 12V ~ 48V DC and supports 24V AC.
2. Use one power input when using 24V AC.

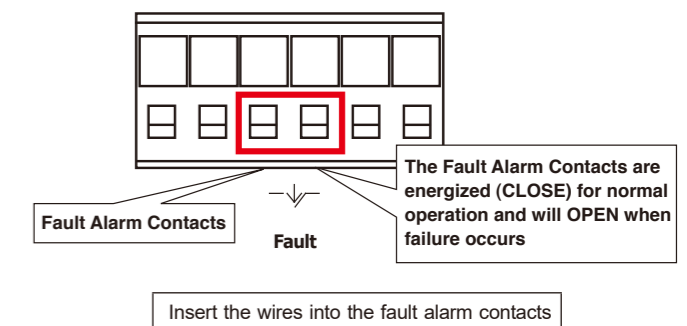
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1. La plage d'entrée d'alimentation est de 12V ~ 48V DC et prend en charge 24V AC.
2. Utilisez une entrée d'alimentation lorsque vous utilisez 24V AC.

### 3.5 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 Ethernet Switch will detect the fault status of the power failure and then forms an open circuit. The following illustration shows an application example for wiring the fault alarm contacts.



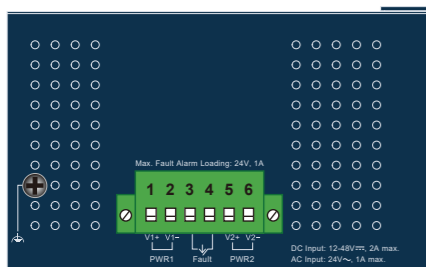
Wire Range	Wire Type	FW	Torque In-lbs (N.m)
12-24 AWG Str/Sol	Cu	2	5 (0.56)

Alarm relay circuit accepts up to 24V AC, 1A.

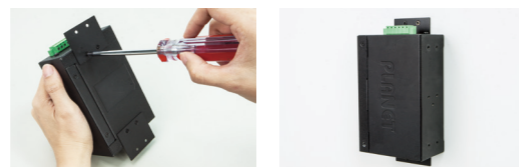
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### 3.6 Grounding the Device

Users **MUST** complete grounding wired with a power cord adapter or power supply source should be connected to a socket outlet with an earthing connection; otherwise, a sudden lightning could cause fatal damage to the device.



### 4.3 Side Wall-mount Plate Mounting



Caution

You must use the screws supplied with the wall-mounting brackets. Damage caused to the parts by using incorrect screws would invalidate your warranty.



Attention

Vous devez utiliser les vis fournies avec les supports muraux. Les dommages causés aux pièces par l'utilisation de vis incorrectes invalideraient votre garantie.

## 4. Installation

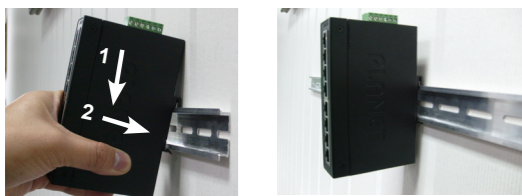
This section describes the functionalities of the Industrial Ethernet Switch's components and guides you to installing it on the DIN rail and wall. Please read this chapter completely before continuing.



Note

This following pictures show how to install the device. However, the device in the picture is not ISW-1600T.

### 4.1 DIN-rail Mounting Installation



### 4.2 Wall-mount Plate Mounting



Mount on product or wall (Screw size and quantity: 4mm (L), 3mm (dia.) and 4pcs); DIN-rail mount on product (Screw size and quantity: 4mm (L), 3mm (dia.) and 3pcs)

## 5. Customer Support

Thank you for purchasing PLANET products. You can browse our online FAQ resource at the 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>

Switch support team mail address:  
[support@planet.com.tw](mailto:support@planet.com.tw)

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Industrial 16-Port 10/100TX Ethernet Switch

ISW-1600T



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-AH7050-000



### FCC Warning

This equipment has been tested and found to comply with the regulations for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with this user's guide, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his own expense.

### Avertissement de la FCC

Cet équipement a été testé et jugé conforme à la réglementation pour un appareil numérique de classe A, conformément à la partie 15 des règles de la FCC. Ces limites sont conçues pour fournir une protection raisonnable contre les interférences nuisibles lorsque l'équipement est utilisé dans un environnement commercial. Cet équipement génère, utilise et peut émettre de l'énergie radiofréquence et, s'il n'est pas installé et utilisé conformément au présent guide de l'utilisateur, peut causer des interférences nuisibles aux communications radio. Le fonctionnement de ces équipements dans une zone résidentielle est susceptible de provoquer des interférences préjudiciables, auquel cas l'utilisateur sera tenu de corriger les interférences à ses propres frais.

### CE Mark Warning

This is a Class A product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.

This equipment is compliant with Class A of CISPR 32. In a residential environment this equipment may cause radio interference.

### Avertissement de marquage CE

Il s'agit d'un produit de classe A. Dans un environnement domestique, ce produit peut provoquer des interférences radio, auquel cas l'utilisateur peut être tenu de prendre des mesures adéquates.

Cet équipement est conforme à la classe A du CISPR 32. Dans un environnement résidentiel, cet équipement peut causer des interférences radio.

### WEEE Warning

To avoid the potential effects on the environment and human health as a result of the presence of hazardous substances in electrical and electronic equipment, end users of electrical and electronic equipment should understand the meaning of the crossed-out wheeled bin symbol. Do not dispose of WEEE as unsorted municipal waste and have to collect such WEEE separately.

### Avertissement WEEE

Afin d'éviter les effets potentiels sur l'environnement et la santé humaine résultant de la présence de substances dangereuses dans les équipements électriques et électroniques, les utilisateurs finaux d'équipements électriques et électroniques devraient comprendre la signification du symbole du bac à roulettes barré. Ne jetez pas les WEEE en tant que déchets municipaux non triés et devez les collecter séparément.