

**Industrial 5-/8-Port 10/100TX
Compact Ethernet Switch**

ISW-500T/ISW-800T

User's Manual



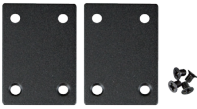

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1. Package Contents

Thank you for purchasing PLANET industrial 5-/8-port 10/100TX Compact Ethernet Switch, ISW-500T/800T. In the following section, the term **"Industrial Ethernet Switch"** means the ISW-500T or ISW-800T.

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

<p>Industrial Ethernet Switch x 1</p>  A black industrial Ethernet switch with two rows of ports on the front and green terminal blocks on top.	<p>User's Manual x 1</p>  The cover of the user's manual, featuring the PLANET logo and product information.
<p>Wall-mount Kit</p>  Two black metal mounting plates with four holes each, and a small pile of screws.	<p>DIN Rail Kit</p>  A black metal DIN rail mounting bracket and a small pile of screws.

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

Physical Port

- 5-port 10/100BASE-TX RJ45 with auto MDI/MDI-X function (ISW-500T)
- 8-port 10/100BASE-TX RJ45 with auto MDI/MDI-X function (ISW-800T)

Layer 2 Features

- Complies with IEEE 802.3 10BASE-T, IEEE 802.3u 100BASE-TX Ethernet standard
- Supports auto-negotiation and 10/100Mbps half/full duplex mode
- Prevents packet loss with back pressure (half-duplex) and IEEE 802.3x pause frame flow control (full-duplex)
- Complies with IEEE 802.3az Energy Efficient Ethernet (EEE)
- IEEE 802.1p CoS
- Supports 1K MAC address
- Automatic address learning and address aging

Industrial Case & Installation

- IP30 metal case
- DIN rail and wall-mount design
- 12 to 48V DC, redundant power with polarity reverse protect function
- 24V AC power input acceptable
- Supports 6000 VDC Ethernet ESD protection
- -40 to 75 degrees C operating temperature
- Free fall, shock-proof and vibration-proof for industries

3. Product Specifications

Product	ISW-500T	ISW-800T
Hardware Specifications		
Copper Ports	5 10/100BASE-TX RJ45 auto-MDI/MDI-X ports	8 10/100BASE-TX RJ45 auto-MDI/MDI-X ports
Switch Architecture	Store-and-Forward	
Switch Fabric	1Gbps (non-blocking)	1.6Gbps (non-blocking)
Throughput (packet per second)	0.74Mpps@ 64 bytes	1.19Mpps@ 64 bytes
Address Table	1K entries, automatic source address learning and aging	
Shared Data Buffer	448K bits	
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	
LED Indicator	System: Power 1 (Green) Power 2 (Green) Fault Alarm (Red)	

LED Indicator	Per 10/100TX RJ45 Ports: 10/100 LNK/ACT (Green)	
Dimensions (W x D x H)	70 x 104 x 30 mm	70 x 115 x 41 mm
Weight	255g	300g
Power Requirements	Dual 12~48V DC, 24V AC	
Power Consumption	Max. 2 watts/6.86BTU (Ethernet full loading)	Max. 2.5 watts/8.57BTU (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/100BASE-FX 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)	

4. Hardware Introduction

4.1 Three-View Diagram

The three-view diagram of the **Industrial Ethernet Switch** consists of five or eight auto-sensing 10/100/BASE-TX **RJ45 port** and one **removable 6-pin terminal block**. The LED indicators are also located on the front panel.

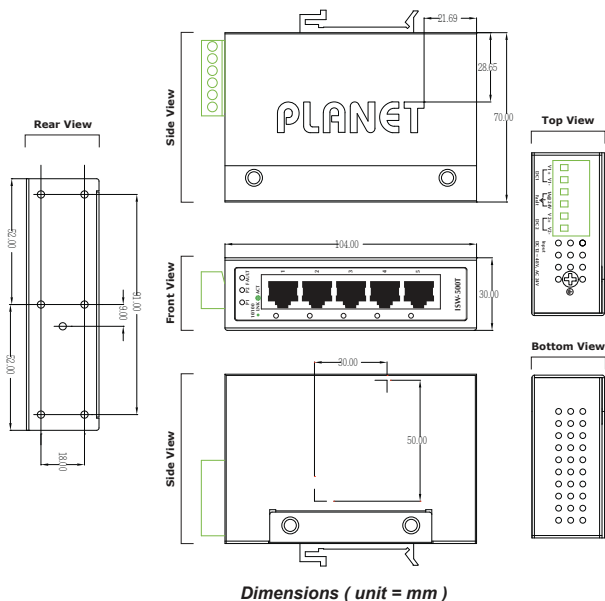


Figure 1: ISW-500T Three-View Diagram

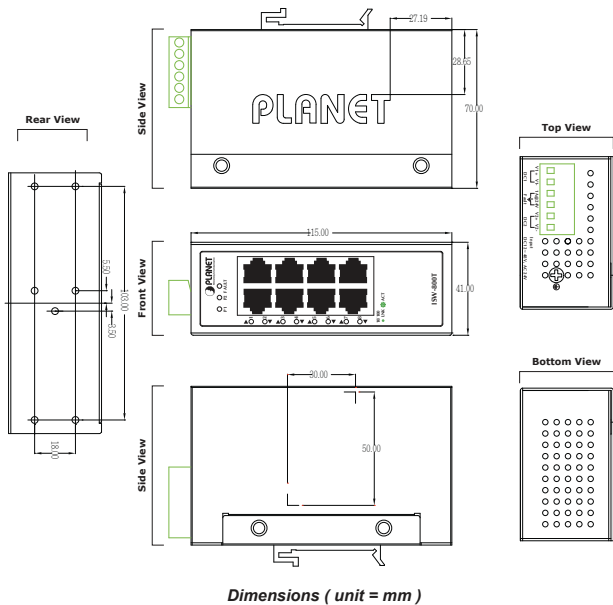


Figure 2: ISW-800T Three-View Diagram

Front View



Figure 1: ISW-500T Front View

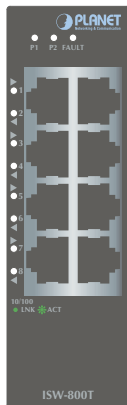


Figure 2: ISW-800T Front View

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	
10/100 LNK/ ACT	Green	Lights	Indicating the port is running at 10/100Mbps speed and successfully established.
		Blinks	Indicating that the switch is actively sending or receiving data over that port.

Top View

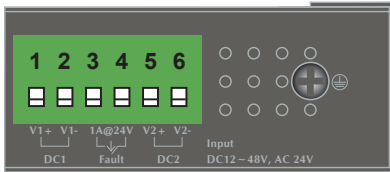


Figure 1: ISW-500T Top View

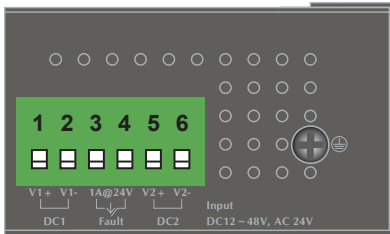


Figure 2: ISW-800T Top View

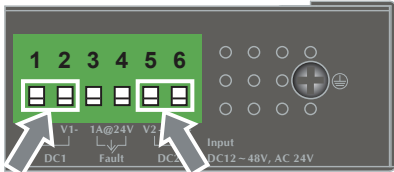
4.2 Wiring the Power Inputs

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.

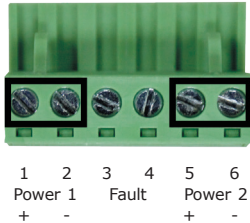


When performing any of the procedures like inserting the wires or tightening the wire-clamp screws, make sure the power is OFF to prevent from getting an electric shock.

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



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

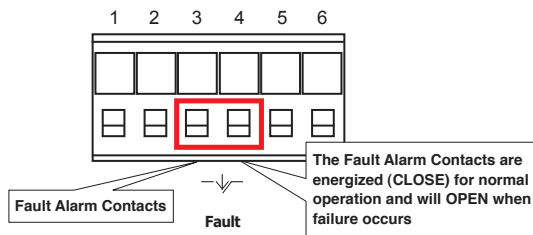


Note

1. The wire gauge for the terminal block should be in the range between 12 and 24 AWG.
2. The DC power input range is 12V ~ 48V DC and supports 24V AC

4.3 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



Insert the wires into the fault alarm contacts



Note

1. The wire gauge for the terminal block should be in the range between 12 and 24 AWG.
2. Alarm relay circuit accepts up to 24V DC, 1A.

5. 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 picture tells the user how to install the device, and the device is not ISW-500T or ISW-800T.

5.1 DIN-rail Mounting Installation

The DIN rail is screwed on the Industrial Ethernet Switch when out of factory. When replacing the wall-mount application with DIN-rail application, Industrial Ethernet Switch is needed. Please refer to the following figures to screw the DIN rail on it. To hang the Industrial Gigabit Ethernet Switch, follow the following steps:

Step 1: Screw the DIN rail on the Industrial Ethernet Switch.



Step 2: Lightly insert the bottom of the switch into the track.



Step 3: Make sure the DIN rail is tightly secured on the track.



Step 4: Please refer to the following procedure to remove the Industrial Ethernet Switch from the track.



Step 5: Lightly pull out the bottom of the switch for removing it from the track.

5.2 Wall-mount Plate Mounting

To install the Industrial Ethernet Switch on the wall, please follow the instructions described below.

Step 1: To remove the DIN rail from the Industrial Ethernet Switch, loosen the screws.

Step 2: Place the wall-mount plate on the rear panel of the Industrial Ethernet Switch.



Step 3: Use the screws to screw the wall-mount plate on the Industrial Ethernet Switch.

Step 4: Use the hook holes at the corners of the wall-mount plate to hang the Industrial Ethernet Switch on the wall.

Step 5: To remove the wall-mount plate, reverse the steps above.

Customer Support

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

PLANET online FAQ :

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

Switch support team mail address :

support_switch@planet.com.tw

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