

**Compact Industrial 8-Port
Gigabit PROFINET Switch**

IGS-800T-PN/IGS-820TF-PN

User's Manual

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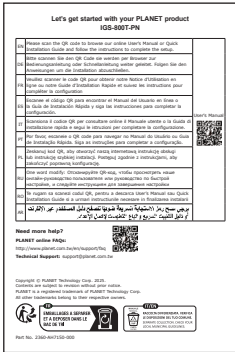
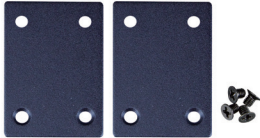
1. Package Contents

Thank you for purchasing PLANET Compact Industrial 8-port Gigabit Ethernet Switch, IGS-800T-PN/IGS-820TF-PN. The table below shows the models with the number of ports:

Model Name	Copper Port	Fiber Port
IGS-800T-PN	8 x 10/100/1000T RJ45	-
IGS-820TF-PN	6 x 10/100/1000T RJ45	2 x 100/1000X SFP

In the following sections, the term “Industrial Gigabit PROFINET Switch” mentioned in this user’s manual refer to the above models

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

Industrial Gigabit PROFINET Switch x 1	QR Code Sheet x 1	Wall-mount Kit x 1
		
DIN-rail Kit x 1	RJ45 Dust Caps x 8 / x 6	SFP Dust Caps x 2 pcs
	 IGS-800T-PN x 8 IGS-820TF-PN x 6	 IGS-820TF-PN only

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 Specifications

Model	IGS-800T-PN	IGS-820TF-PN
Hardware Specifications		
Copper Ports	8 10/100/1000BASE-T RJ45 auto-MDI/MDI-X ports	6 10/100/1000BASE-T RJ45 auto-MDI/MDI-X ports (Ports 1 to 6)
SFP Slots	-	2 1000BASE-X SFP interfaces (Ports 7 to 8) Backward compatible with 100BASE-FX transceiver
Connector	Removable 4-pin terminal block Pin 1/2 for Power 1; Pin 3/4 for Power 2	
Alarm	-	
Power Requirements	9~48V DC , redundant power with reverse polarity protection function, 24V AC power support	
Power Consumption	System on: Max. 0.48 watts/1.64BTU	System on: Max. 1.44 watts/4.9BTU
	Ethernet Full Loading: Max. 2.88 watts/9.83BTU	Ethernet Full Loading: Max. 2.88 watts/9.83BTU
Dimensions (W x D x H)	41 x 70 x 115 mm	
Weight	305g	345g
Enclosure	IP30 metal case	
Installation	DIN-rail kit and wall-mount kit	
ESD Protection	6KV	
EFT Protection	6KV	
Switch Specifications		
Switch Architecture	Store-and-Forward	
Switch Fabric	16Gbps	
Throughput (packet per second)	11.9Mpps@64bytes	
Address Table	4K entries	

Buffer Memory	4M bits on-chip buffer memory
Jumbo Frame	9Kbytes
Flow Control	Back pressure for half duplex IEEE 802.3x pause frame for full duplex
PROFINET Support	Conformance Class A (CC-A) compliant PTCP & LLDP filtering Strict mode traffic prioritization Optimized QoS for industrial automation protocols
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 Ethernet IEEE 802.3u Fast Ethernet IEEE 802.3ab Gigabit Ethernet IEEE 802.3z Gigabit SX/LX (IGS-820TF-PN) IEEE 802.3x Full-Duplex Flow Control IEEE 802.3az Energy Efficient Ethernet (EEE) IEEE 802.1p Class of Service
Environment	
Temperature	Operating: -40 ~ 75 degrees C Storage: -40 ~ 75 degrees C
Humidity	Operating: 5~90% (non-condensing), Storage: 5~90% (non-condensing)



Note

Compared to IGS-800T/IGS-820TF, the PN models feature PROFINET CC-A compliance, suitable for industrial automation networks.

3. Hardware Introduction

3.1 Switch Front Panel

The front panels of the Industrial Gigabit PROFINET Switches consist of Ethernet interfaces and LED indicators.

Front View

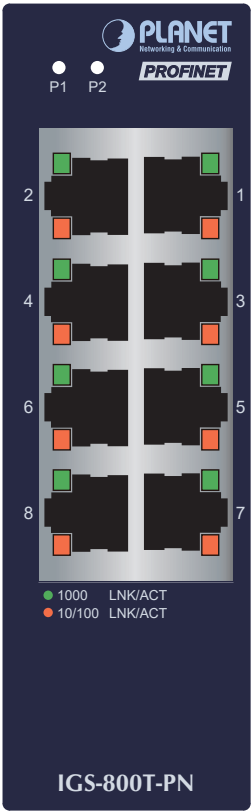


Figure 1: IGS-800T-PN Front View

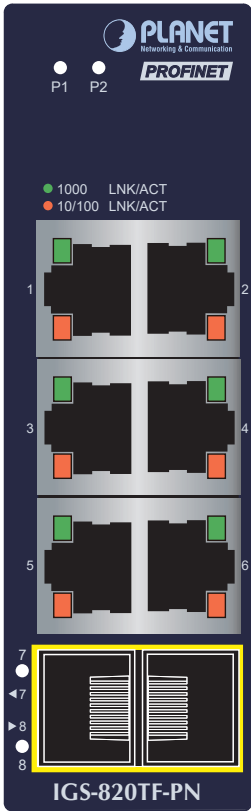


Figure 2: IGS-820TF-PN Front View

3.2 LED Definition:

■ System

LED	Color	Function
P1	Green	Lights to indicate power input 1 has power.
P2	Green	Lights to indicate power input 2 has power.

■ 10/100/1000BASE-T Interface

LED	Color	Function
1000 LNK/ACT	Green	Lights to indicate the port is running at 1000Mbps and successfully established.
		Blinks to indicate that the Switch is actively sending or receiving data over that port.
10/100 LNK/ACT	Amber	Lights to indicate the port is running at 10/100Mbps and successfully established.
		Blinks to indicate that the Switch is actively sending or receiving data over that port.

■ SFP Interface (IGS-820TF-PN only)

LED	Color	Function
1000 LNK/ACT	Green	Lights to indicate the port is running at 1000Mbps and successfully established.
		Blinks to indicate that the Switch is actively sending or receiving data over that port.
100 LNK/ACT	Amber	Lights to indicate the port is running at 100Mbps and successfully established.
		Blinks to indicate that the Switch is actively sending or receiving data over that port.

3.3 Switch Upper Panel

The upper panels of the Industrial Gigabit PROFINET Switches consist of one terminal block connector within two power input.

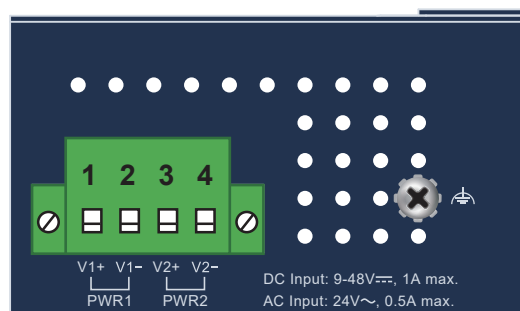


Figure 3: Top View (IGS-800T-PN & IGS-820TF-PN)

3.4 Wiring the Power Inputs

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



Caution

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.

Insert positive and negative DC power wires into contacts 1 and 2 for POWER 1, or contacts 3 and 4 for POWER 2.

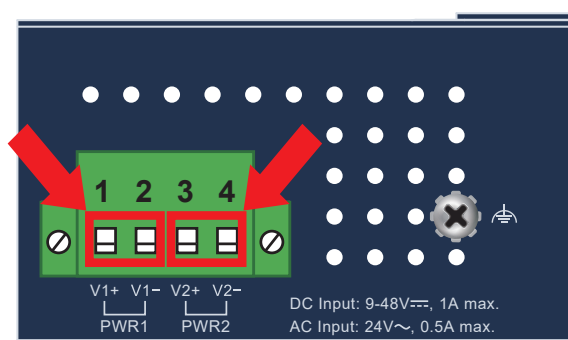
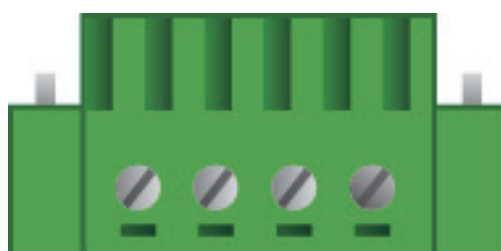


Figure 4: Power 1 and Power 2

This product is supplied with a UL-listed power adapter or power source, rated for 24V AC, 50/60Hz 1A (max.) or 9-48V DC, 1A (max.), with a maximum temperature of 75°C.

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



1	2	3	4
Power 1	Power 2		
+	-	+	-



Note

1. The Industrial Gigabit Ethernet Switch's power input range is **9V ~ 48V DC** with support for **24V AC**.
2. Use one power input when using 24V AC.

3.5 Grounding the Device

Users **MUST** complete grounding the device wired with a power cord adapter or power supply source; otherwise, a sudden lightning could cause fatal damage to the device.



Note

EMD (Lightning) DAMAGE IS NOT COVERED UNDER WARRANTY.

4. Installation

This section guides you to installing the Industrial Gigabit **PROFINET** Switch on a DIN rail or wall.

Please read through this chapter carefully before proceeding with the installation.



Note

The following illustrations demonstrate the installation process.

Please note that the device shown in the images is not the **IGS-800T-PN** or **IGS-820TF-PN** model.

4.1 DIN-rail Installation

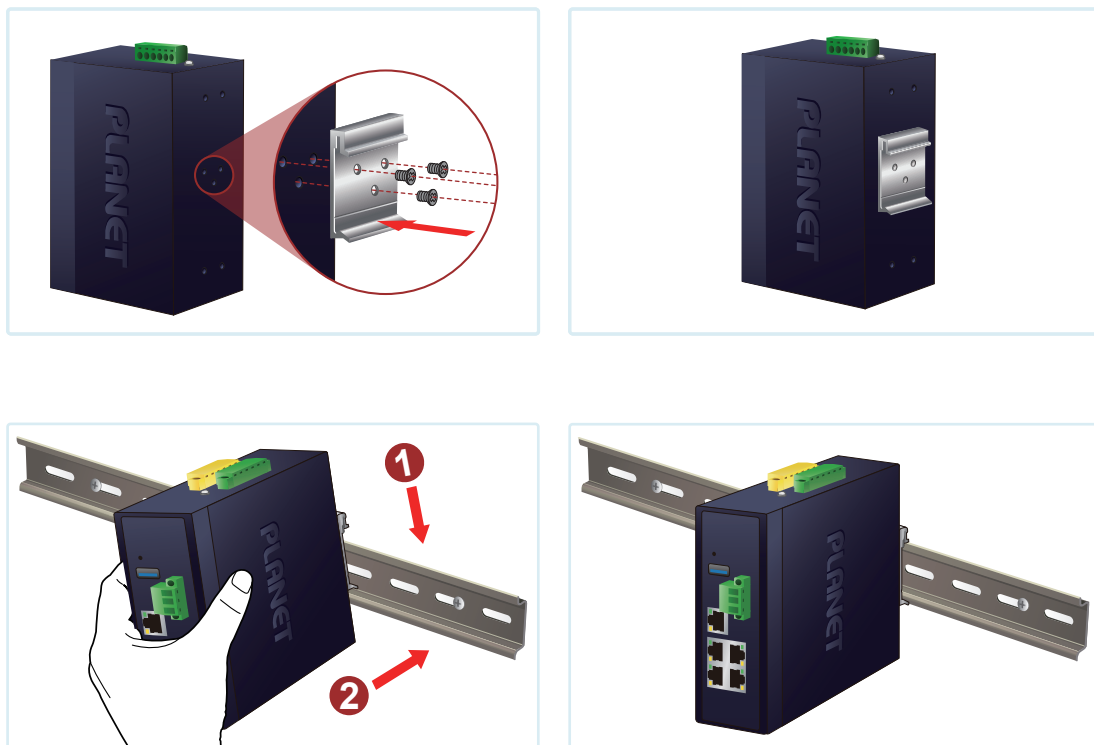


Figure 5: DIN-rail Mounting

1. Attach the bracket to the back of the device using the three provided screws and tighten them securely.
2. Align the bracket with the DIN rail and slide the device into place until it is firmly mounted.

4.2 Wall Mounting

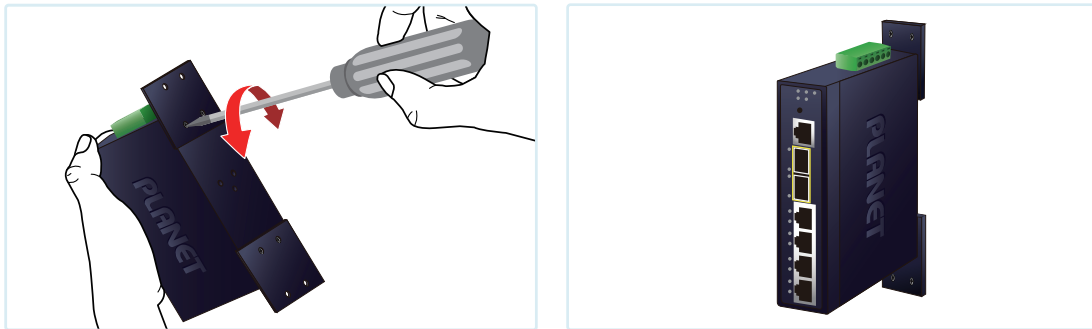


Figure 6: Wall Mounting

1. Attach both mounting plates to the back of the device using the provided screws, and securely tighten them.
2. Position the device with the attached plates onto the desired wall location.
3. Fasten the device to the wall using additional screws to complete the installation.

4.3 Side Wall Mounting

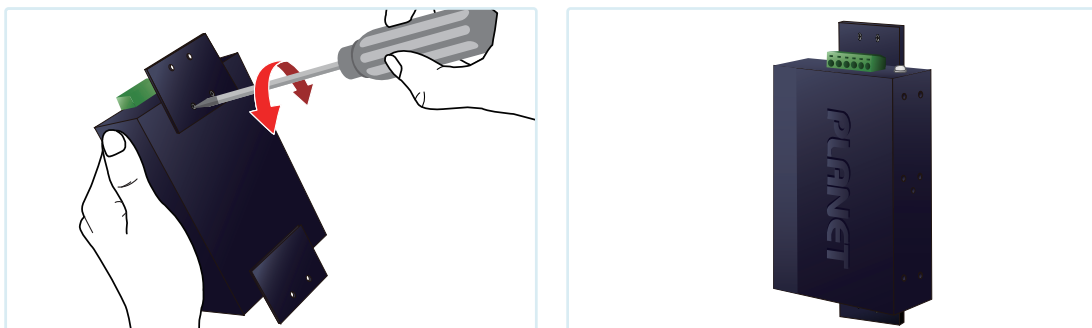


Figure 7: Side Wall Mounting

To mount the device on its side:

1. Attach the two mounting plates to the bottom of the device using the provided screws.
2. Position the device with the plates installed onto the wall surface.
3. Secure the device to the wall by tightening the screws to complete the installation.



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.

5. Three-View Diagram

The three-view diagram of the **Industrial PROFINET Switch** consists of multiple auto-sensing 10/100/1000BASE-T RJ45 ports, 100/1000X SFP (Fiber ports available on IGS-820TF-PN only) and one **removable terminal block**. The LED indicators are also located on the front panel.

IGS-800T-PN

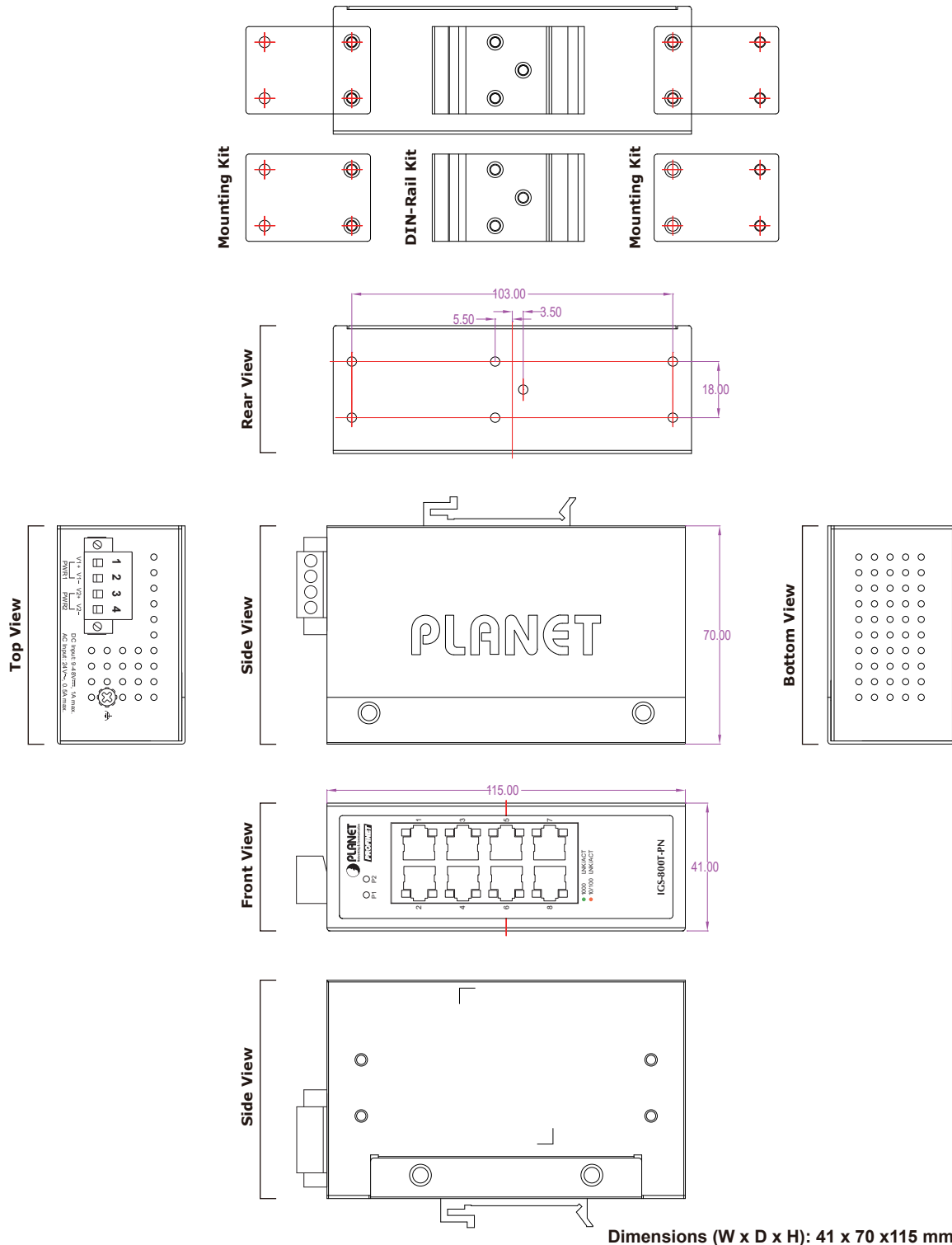
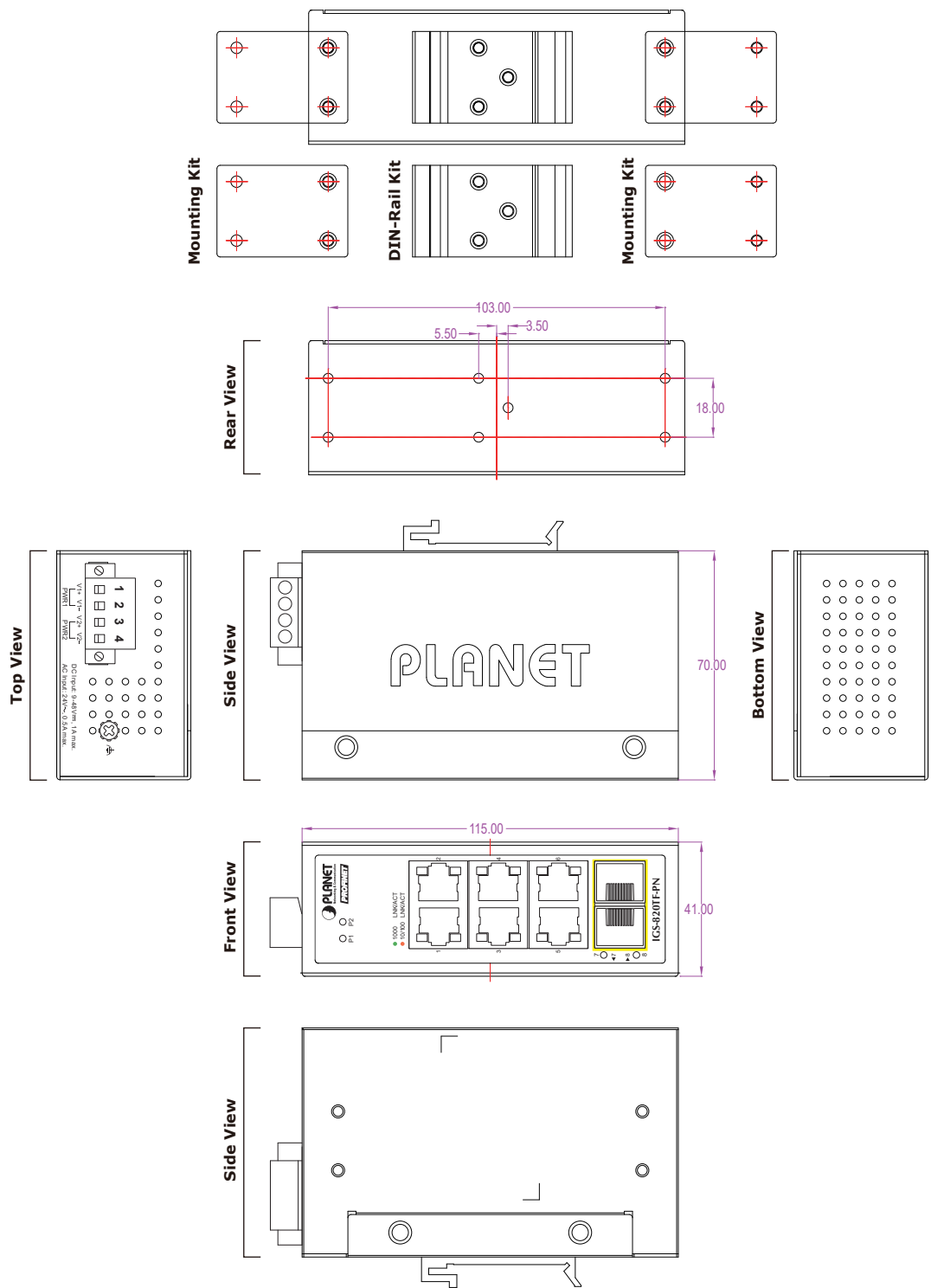


Figure 8: IGS-800T-PN_three-view drawing

IGS-820TF-PN



Dimensions (W x D x H): 41 x 70 x 115 mm

Figure 9: IGS-820TF-PN_three-view drawing

6. 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 FAQs:

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

Switch support team mail address:

support@planet.com.tw

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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.