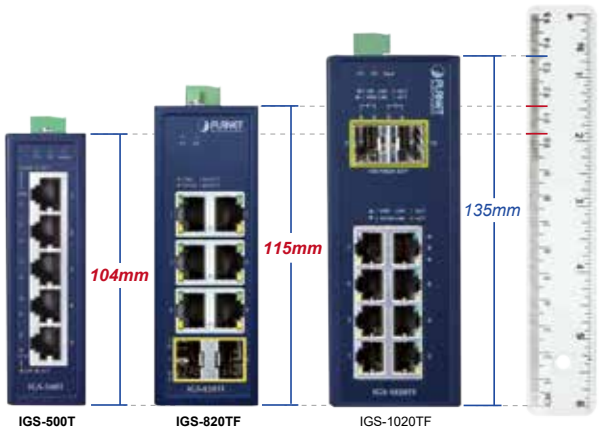
Compact Industrial 5-/8-port Gigabit Ethernet Switch



Compact Size for More Practicability and Convenience

PLANET **IGS-500T**, **IGS-510TF**, **IGS-800T** and **IGS-820TF** Compact Industrial Gigabit Ethernet Switches are specially designed to be installed in a narrow environment, such as wall enclosure and kiosks. It can be installed by fixed wall mounting or DIN rail, thereby making its usability more flexible and easier in any space-limited location. The IGS switches, featuring multiple **10/100/1000BASE-T** copper ports and up to **two 100/1000BASE-X SFP fiber ports**, are packed in an IP30-rated rugged case. Being able to operate under the temperature ranging from **-40** to **75 degrees C** and a wide-ranging redundant power system (**9~48V DC** or **24V AC**), the IGS switches provide reliable, stable and continuous long-range data transmission and can be installed in any harsh environment.



Model No.	10/100/1000BASE-T RJ45 Copper	100/1000BASE-X S FP Slot	Power Input
IGS-500T	5	-	Dual 9~48V DC 24V AC
IGS-510TF	4	1	
IGS-800T	8	-	
IGS-820TF	6	2	

Physical Port

- IGS-500T: 5-port 10/100/1000BASE-T RJ45 with auto-MDI/MDI-X.
- IGS-510TF: 4-port 10/100/1000BASE-T RJ45 with auto-MDI/MDI-X, and 1 SFP slot supporting 100/1000BASE-X and 100BASE-FX dual-mode transceivers.
- IGS-800T: 8-port 10/100/1000BASE-T RJ45 with auto-MDI/MDI-X.
- IGS-820TF: 6-port 10/100/1000BASE-T RJ45 and 2 100/1000BASE-X SFP ports for flexible fiber uplink options.

Layer 2 Features

- Full compliance with IEEE 802.3 standards, including 10BASE-T, 100BASE-TX, 1000BASE-T, and 1000BASE-X, ensuring compatibility and scalability.
- Auto-negotiation support for 10/100Mbps half/full duplex and 1000Mbps full duplex.
- Flow control with back pressure (half-duplex) and IEEE 802.3x pause frames (full-duplex) to prevent packet loss.
- High-performance Store and Forward architecture with broadcast storm control and runt/CRC filtering to eliminate erroneous packets and optimize bandwidth.
- Switching fabric capabilities:
  - IGS-500T: 10Gbps
  - IGS-510TF: 10Gbps
  - IGS-800T and IGS-820TF: 16Gbps
- Integrated address look-up engines supporting 2K MAC addresses (IGS-500T, IGS-510TF) or 4K MAC addresses (IGS-800T, IGS-820TF).
- Support for jumbo frames up to 9K bytes for high-throughput environments.
- Automatic address learning and aging with CSMA/CD protocol.

Industrial Case and Installation

- IP30 compact metal case
- DIN-rail and wall-mount designs
- 9 to 48V DC, redundant power with reverse polarity protection, and connective, removable terminal block for master and slave power; 24V AC power support
- Supports 6000 VDC Ethernet ESD protection.
- -40 to 75 degrees C operating temperature
- Free fall, shock-proof and vibration-proof for industries

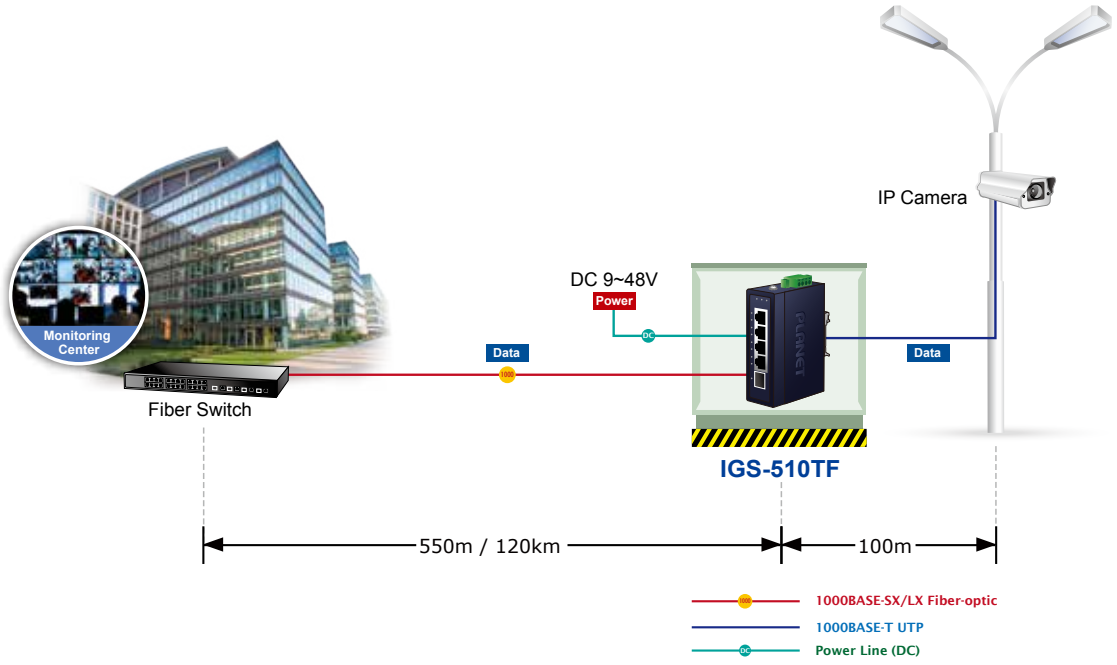
As the trend for an IIoT (Industrial Internet of Things) infrastructure continues to grow, the IGS switches simplify industrial network deployment with its Plug and Play feature. Beyond offering stable and reliable fast data and power transmission, they align with the AIoT (Artificial Intelligence of Things) vision by enabling seamless integration of intelligent systems. This integration facilitates real-time decision-making, operational efficiency, and valuable data analysis across various industrial applications.

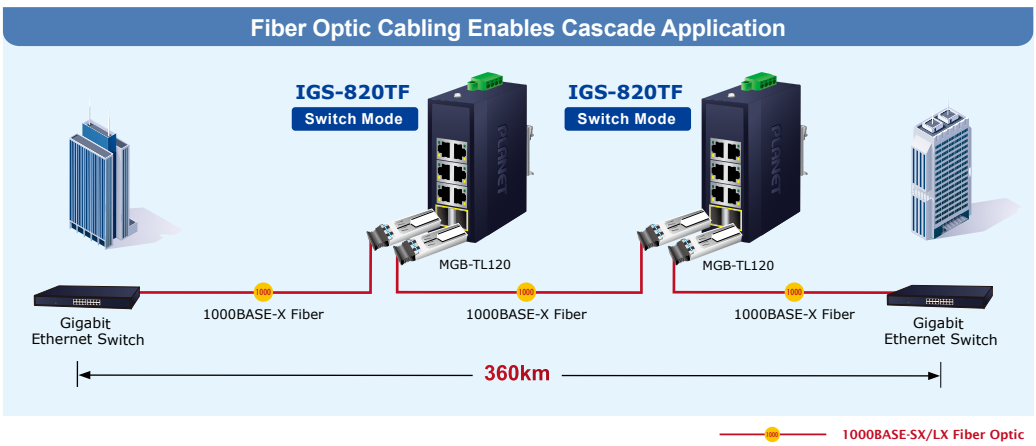
Fiber-Optic Link Capability Enables Seamless Extension of Network Deployment (For IGS-510TF and IGS-820TF)

The IGS-510TF and IGS-820TF are equipped with one and two 1000X SFP Gigabit Ethernet ports, both supporting dual-speed functionality and compatible with 100BASE-FX and 1000BASE-SX/LX SFP fiber-optic modules, respectively. These ports feature auto-detection, allowing administrators to flexibly select the most suitable SFP transceiver based on the required transmission distance or speed, ranging from 550 meters to 120 kilometers depending on the fiber type.

The key difference between the two lies in the application flexibility offered by their respective SFP configurations. The IGS-510TF, with a single SFP, is primarily suited for one-directional fiber-optic uplink, ideal for connecting to backbone switches or monitoring centers. In contrast, the IGS-820TF's two SFPs enable greater versatility, allowing one port to receive incoming data while the other transmits it further, effectively acting as a fiber relay to extend network coverage. This setup is particularly beneficial in scenarios requiring long-distance connectivity, where daisy-chaining switches is necessary to span large industrial sites or connect remote locations.

The fiber-optic uplink capability of both models ensures high throughput to connected nodes and enables efficient network extension for applications like FTTH (Fiber to the Home), FTTC (Fiber to the Curb), or FTTB (Fiber to the Building). The IGS-510TF and IGS-820TF excel in handling high-capacity data transmission, making it ideal for robust, secure, and scalable network deployments in industrial environments.





Low Power Consumption for ESG Principles

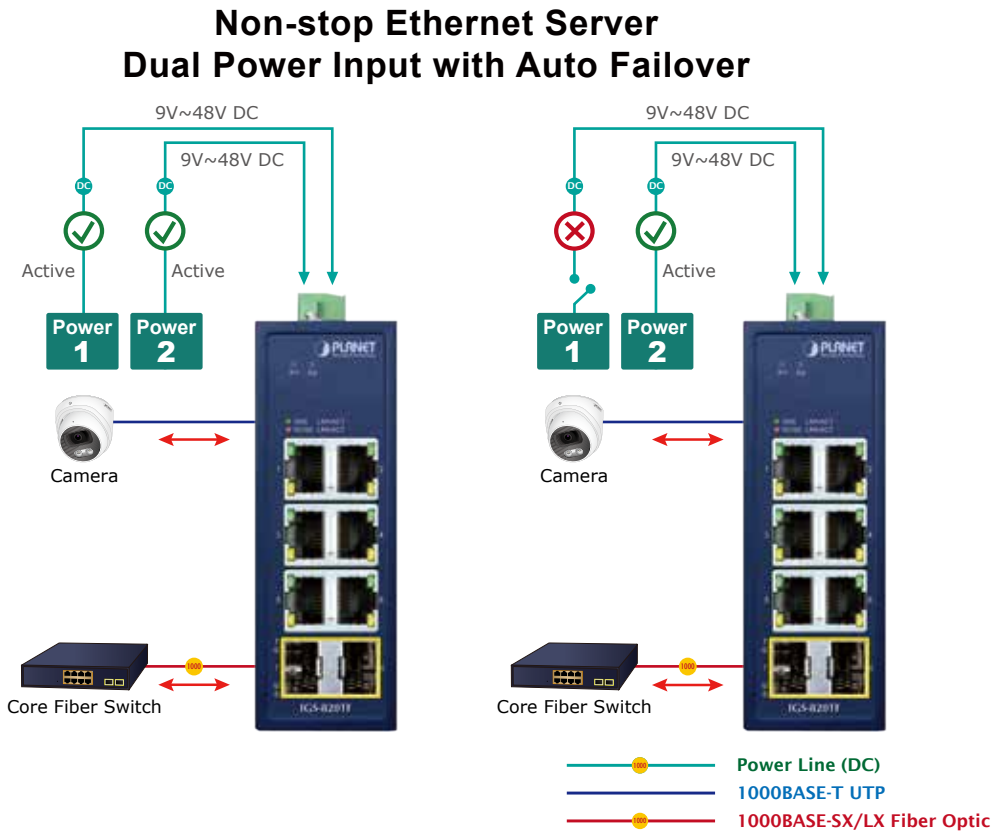
The IGS switches adopt advanced green networking technology that meets the Environmental, Social, and Governance (ESG) principles. They provides link-on cable length power-saving and link-down power-saving features. These characteristics enable the IGS-820TF to maintain extremely low power consumption even under full-load operation, effectively conserving energy while delivering outstanding performance. Compared to the regular Industrial Ethernet Switch, using the IGS switch can save over 50% of energy consumption.

With Auto Power Savings and the IEEE 802.3az Energy Efficient Ethernet (EEE) protocol, the IGS switches can automatically detect cable link status and network traffic, adjusting their power consumption accordingly. When the device is less active, the switch consumes less power, achieving greater energy efficiency.



Dual Power Input for High Availability Network System

The IGS switches feature a strong dual power input system with wide-ranging voltages (9V~48V DC or 24V AC) to enhance system reliability and uptime in automation networks. For example, if power supply 1 fails, the hardware failover function is automatically activated to power the IGS switch through power supply 2, ensuring uninterrupted operation.



High-Performance Switches

The IGS switches deliver exceptional switch performance with advanced architecture across their models. The IGS-500T and IGS-510TF feature 5 Gigabit Ethernet ports, achieving non-blocking switch fabric and wire-speed throughput up to 10Gbps, while the IGS-800T and IGS-820TF provide 8 and 6 Gigabit Ethernet ports, respectively, along with 2 SFP interfaces, both reaching wire-speed throughput of 16Gbps. With robust MAC address table capacities (2K for IGS-500T, 4K for IGS-800T and IGS-820TF) and flow control functionality, these switches ensure fast, reliable, and lossless data transfer, making them ideal for demanding industrial and high-performance network applications.

Plug and Play

All RJ45 copper interfaces support 10/100/1000Mbps auto negotiation for optimal speed detection through RJ45 Category 6, 5, or 5e cables. The auto-MDI/MDI-X feature allows seamless connection to any Ethernet device without requiring special straight-through or crossover cables. Additionally, the SFP slot of IGS-510TF and IGS-802TF support **Plug and Play SFP module installation with hot-swap functionality**, allowing users to easily add or replace SFP modules without disrupting system operations. These features ensure versatile and uninterrupted network deployment in diverse industrial environments.

Flexible and Easy Installation with Limited Space

The compact design of the IGS switches makes it ideal for narrow environments, such as wall enclosures. It supports both wall mounting and DIN-rail installation, ensuring flexibility and convenience in space-constrained locations.

Optional installation method

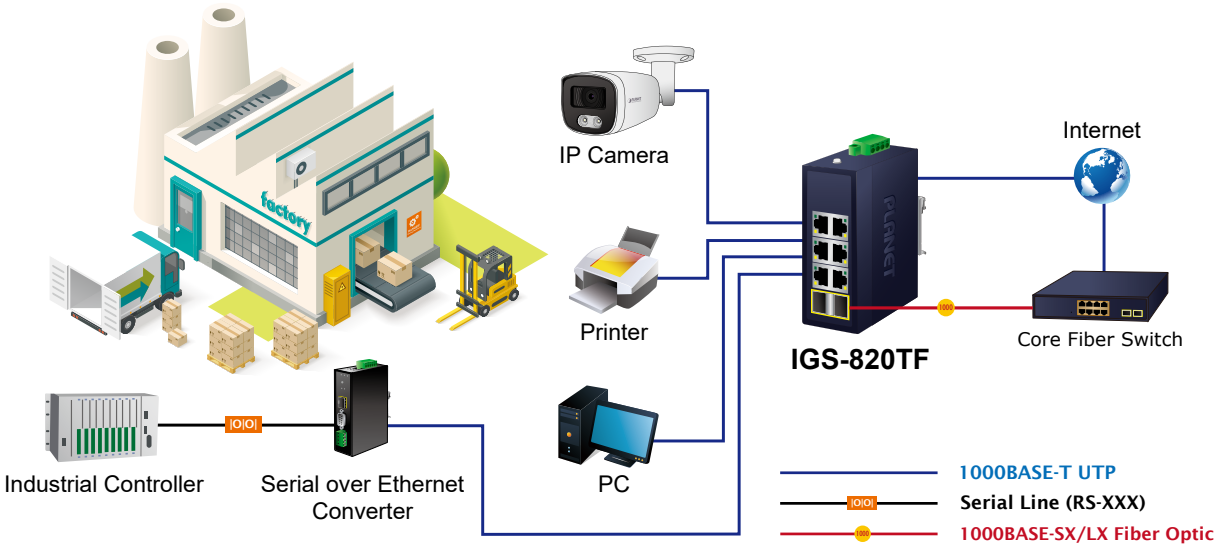


* The above pictures are for illustration only.

Applications

Designed for Heavy Industries

PLANET IGS IGS-500T, IGS-510TF, and IGS-820TF industrial-grade Ethernet switches are purpose-built for demanding environments such as factories, harbors, warehouses, and transportation systems. Featuring robust IP30-rated metal enclosures and the ability to operate in extreme temperatures (-40°C to 75°C), these switches ensure reliable performance in harsh conditions. With full-port Gigabit speed, support for long-distance fiber uplinks, and compatibility with 100Mbps and 1000Mbps SFP transceivers, the IGS switches enable fast, stable, and secure data transmission. Ideal for industrial automation, intelligent transportation systems, smart energy plants, IoT/IIoT integration, smart buildings, and remote monitoring, these switches enhance operational efficiency through high reliability, flexible deployment, and seamless connectivity for real-time data collection and analysis.



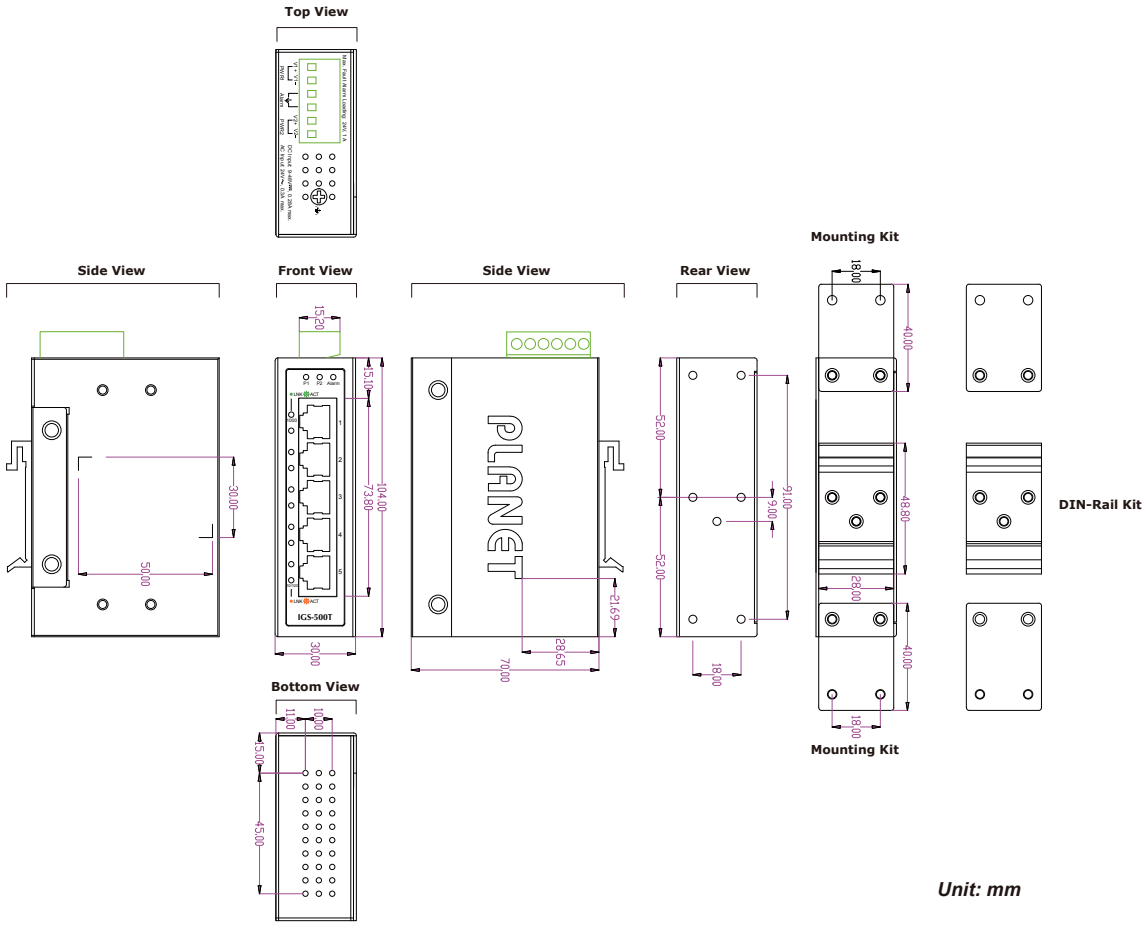
Specifications

Model	IGS-500T	IGS-510TF	IGS-800T	IGS-820TF
Hardware Specifications				
PoE Injector Port	5 x 10/100/1000BASET RJ45 TP auto-MDI/MDI-X, auto negotiation	4-port 10/100/1000BASET RJ45 TP auto-MDI/MDI-X, auto negotiation	**8** x 10/100/1000BASET RJ45 TP auto-MDI/MDI-X, auto negotiation	**6** x 10/100/1000BASE-T RJ45 TP auto-MDI/MDI-X, auto negotiation ports (Ports 1 to 6)
SFP Slots	-	**1** 1000BASE-SX/LX/BX SFP interface Compatible with 100BASE-FX SFP	-	**2** x 1000BASE-X SFP interfaces (Ports 7 to 8) Backward compatible with 100BASE-FX transceiver
Connector	Removable 6-pin terminal block Pin 1/2 for Power 1; Pin 3/4 for fault alarm; Pin 5/6 for Power 2	Removable 4-pin terminal block Pin 1/2 for Power 1; Pin 3/4 for Power 2		
ESD Protection	6KV			
EFT Protection	6KV			
Power Requirements	9~48V DC, redundant power with polarity reverse protection function, 24V AC power support			
Power Consumption / Dissipation	1.2 watts/4.09BTU	2.4 watts/8.1BTU	2.88 watts/9.83BTU	System on: Max. 1.44 watts/4.9BTU Ethernet Full Loading: Max. 2.88 watts/9.8BTU
Installation	DIN-rail kit and wall-mount ear			
Enclosure	IP30 metal case			
Dimensions (W x D x H)	30 x 70 x 104 mm		41 x 70 x 115 mm	
Weight	264g	239g	305g	345g
LED	**3 x LED for system and power:** ■ **Green**: Power 1 ■ **Green**: Power 2 ■ **Red**: Power Alarm	**2 x LED for power:** ■ **Green**: Power 1 ■ **Green**: Power 2	**2 x LED for power:** ■ **Green**: Power 1 ■ **Green**: Power 2	**2 x LED for power:** ■ **Green**nn: Power 1 ■ **Green**: Power 2
	2 x LED for each copper port: ■ **Green**: 1000Mbps LNK/ACT ■ **Amber**:10/100Mbps LNK/ACT	**2 x LED for each copper port:** ■ **Green**: 1000Mbps LNK/ACT ■ **Amber**:10/100Mbps LNK/ACT 1 x LED for SFP fiber slot: ■ **Green**: LNK/ACT	**2 x LED for each copper port:** ■ **Green**: 1000Mbps LNK/ACT ■ **Amber**:10/100Mbps LNK/ACT	**2 x LED for each copper port:** ■ **Green**: 1000Mbps LNK/ACT ■ **Amber**:10/100Mbps LNK/ACT 2 x LED for SFP fiber slot: ■ **Green**: 1000Mbps LNK/ACT ■ **Amber**: 100Mbps LNK/ACT
Switch Specifications				
Switch Processing Scheme	Store-and-Forward			
Address Table	2K entries		4K entries	
Buffer Memory	4M bits on-chip buffer memory			
Flow Control	Back pressure for half duplex IEEE 802.3x pause frame for full duplex			
Switch Fabric	10Gbps		16Gbps	
Throughput (packet per second)	7.4Mpps@64bytes		11.9Mpps@64bytes	
Jumbo Frame	9Kbytes			
Network Cables	10/100/1000BASE-T Cat. 3, 4, 5, 5e, 6 UTP cable (max. 100 meters) EIA/TIA-568 100-ohm STP (max. 100 meters)			
Standards Conformance				
Standards Compliance	IEEE 802.3 Ethernet IEEE 802.3u Fast Ethernet IEEE 802.3ab Gigabit Ethernet IEEE 802.3z Gigabit SX/LX (IGS-510TF and IGS-820TF) IEEE 802.3x Full-Duplex Flow Control IEEE 802.3az Energy Efficient Ethernet IEEE 802.1p Class of Service			

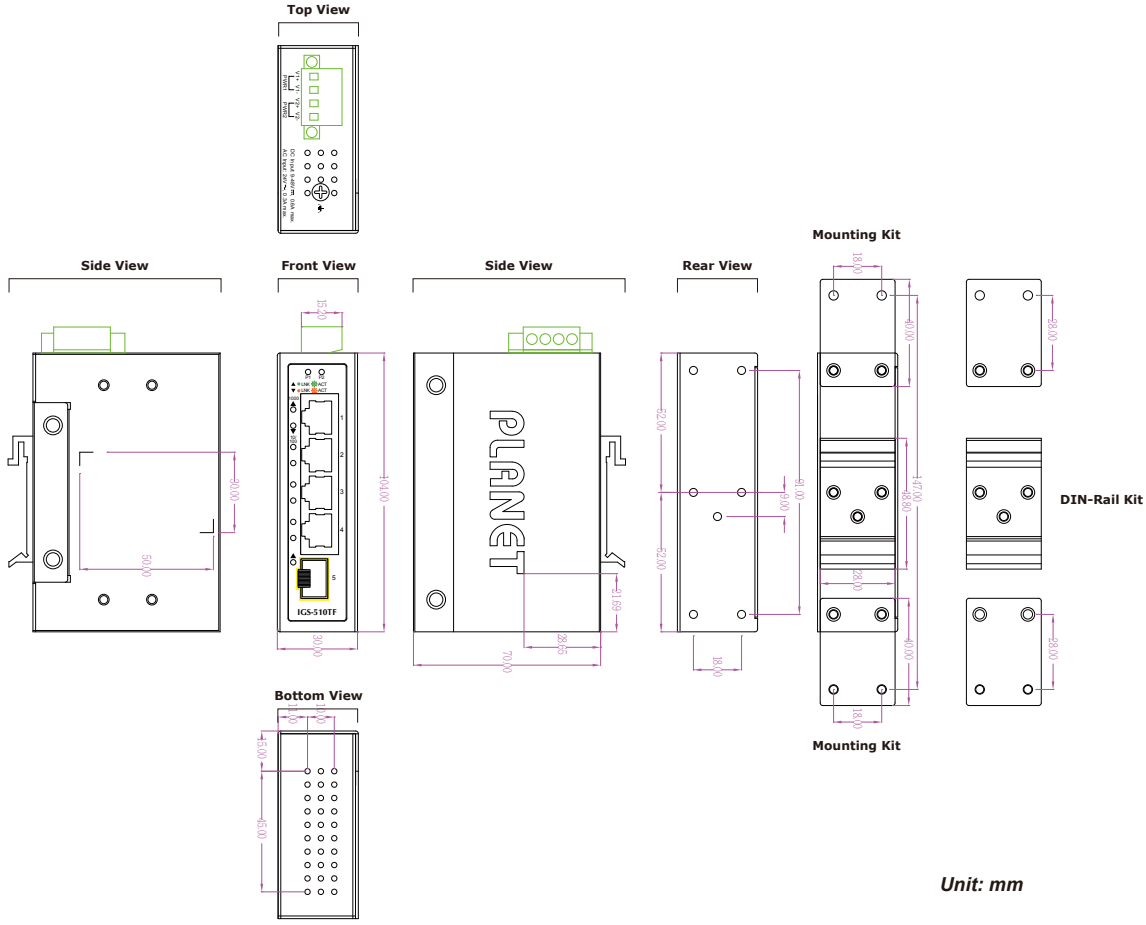
Regulatory Compliance	FCC Part 15 Class A, CE
Stability Testing	IEC 60068-2-32 (free fall) IEC 60068-2-27 (shock) IEC 60068-2-6 (vibration)
Environment	
Temperature	Operating: -40~75 degrees C Storage: -40~75 degrees C
Humidity	Operating: 5~90%, Storage: 5~90% (non-condensing)

Dimensions

■ IGS-500T

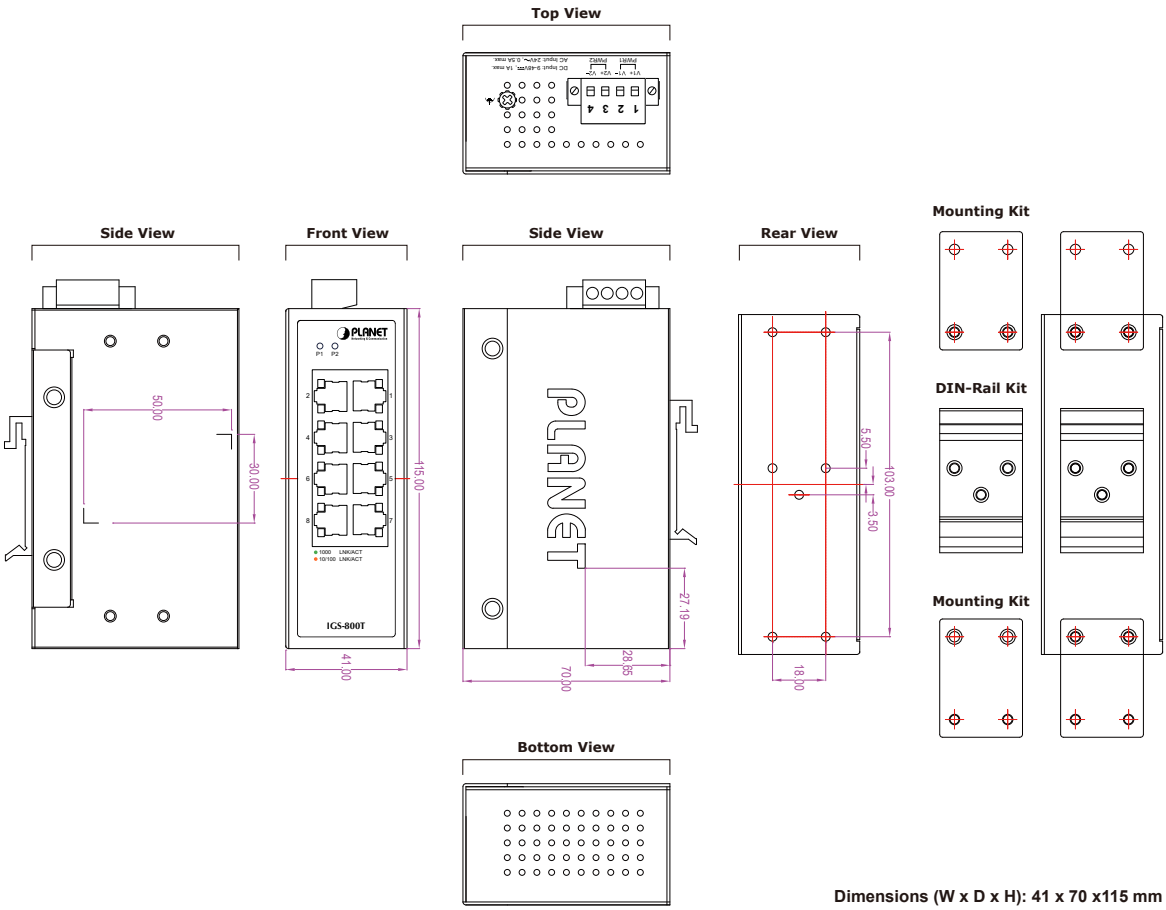


■ IGS-510TF



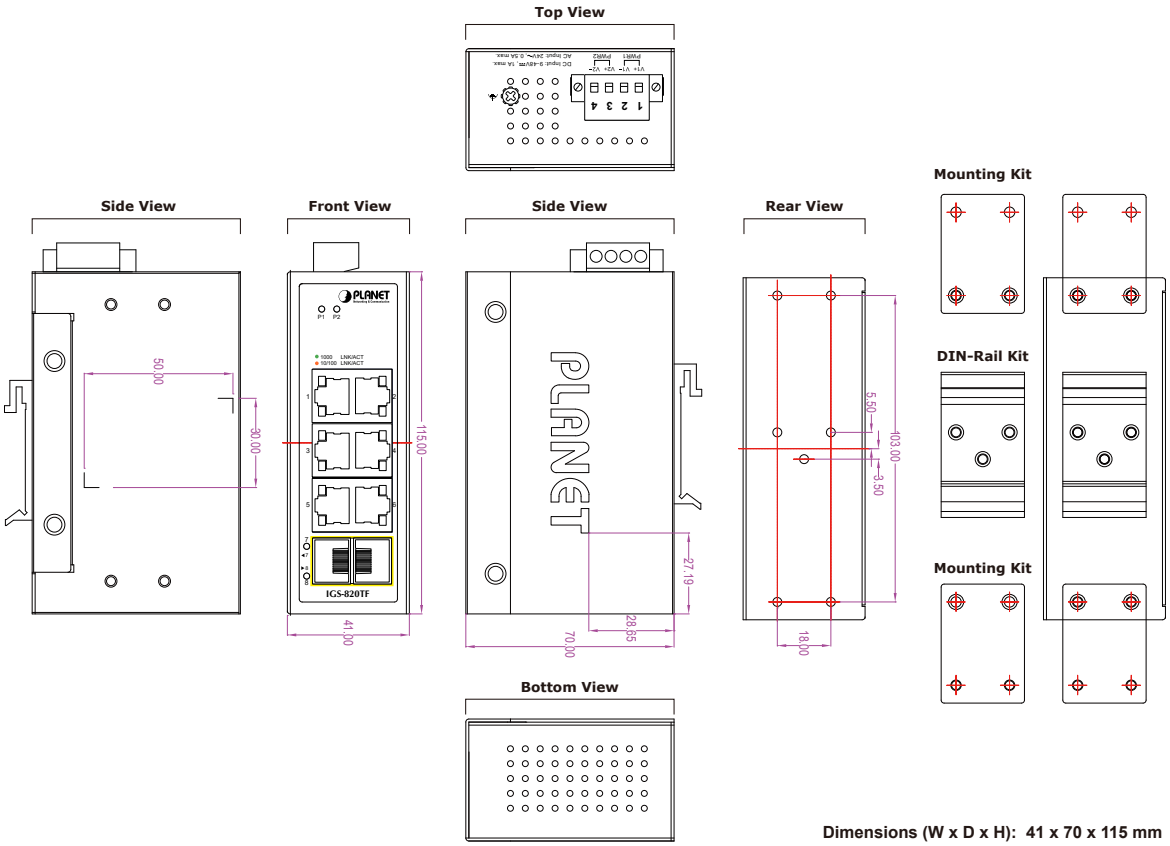
Unit: mm

■ IGS-800T



Dimensions (W x D x H): 41 x 70 x115 mm

■ IGS-820TF



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

Ordering Information

IGS-500T	Compact Industrial 5-port 10/100/1000T Gigabit Ethernet Switch (-40~75 degrees C operating temperature)
IGS-510TF	Industrial Compact 4-port 10/100/1000T + 1-port 100/1000X SFP Gigabit Ethernet Switch (-40~75 degrees C operating temperature)
IGS-800T	Compact Industrial 8-port 10/100/1000T Gigabit Ethernet Switch (-40~75 degrees C operating temperature)
IGS-820TF	Compact Industrial 6-port 10/100/1000T + 2-port 100/1000X SFP Ethernet Switch (-40~75 degrees C operating temperature)

Related Products

IGS-504PT	Industrial Compact 4-port 10/100/1000T 802.3at PoE + 1-port 10/100/1000T Gigabit Ethernet Switch (-40~75 degrees C operating temperature)
IGS-514PT	Industrial Compact 4-port 10/100/1000T 802.3at PoE + 1-port 100/1000X SFP Gigabit Ethernet Switch (-40~75 degrees C operating temperature)
IGS-801T	8-port 10/100/1000T Industrial Gigabit Ethernet Switch (-40~75 degrees C operating temperature)
ISW-800T	Industrial 8-port 10/100TX Compact Ethernet Switch (-40~75 degrees C operating temperature)
IGS-501T	5-port 10/100/1000T Industrial Gigabit Ethernet Switch (-40~75 degrees C operating temperature)
IGS-620TF	Industrial 4-port 10/100/1000BASE-T + 2-port 100/1G/2.5GBASE-X SFP Ethernet Switch
IGS-1020TF	Industrial 8-port 10/100/1000T + 2 1000X SFP Ethernet Switch (-40~75 degrees C)
IGS-1600T	Industrial 16-port 10/100/1000T Ethernet Switch (-40~75 degrees C)
IGS-1820TF	Industrial 16-port 10/100/1000T + 2-port 1000X SFP Ethernet Switch (-40~75 degrees C)
WGS-803	Industrial 8-port 10/100/1000T Wall-mount Switch (-10~60 degrees C)
ISW-500T	Industrial 5-port 10/100TX Compact Ethernet Switch (-40~75 degrees C operating temperature)

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