

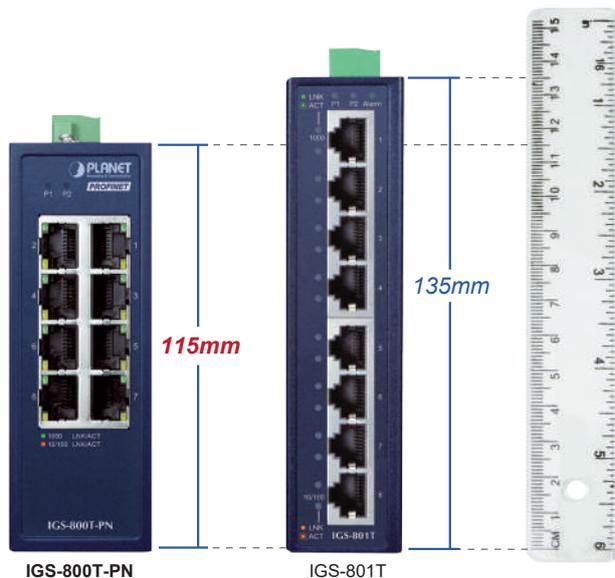
# Compact Industrial 8-port Gigabit PROFINET Switch



### Compact and Rugged Design for Industrial Environments

PLANET IGS-800T-PN and IGS-820TF-PN are compact industrial **PROFINET switches** designed to meet the demanding requirements of **smart factories**. The IGS-800T-PN features **8 auto-negotiation 10/100/1000BASE-T RJ45 ports**, while the IGS-820TF-PN provides **6 RJ45 ports and 2 dual-speed 100/1000BASE-X SFP fiber interfaces** for extended deployment flexibility. Both models come in **IP30-rated rugged metal cases** and operate reliably within a wide temperature range of **-40 to 75°C**.

### Compact Industrial 8-Port Switch



### Plug-and-Play Deployment for IIoT and AIoT Systems

As the trend for an **IIoT (Industrial Internet of Things)** infrastructure continues to grow, the IGS-800T-PN and IGS-820TF-PN simplify industrial network deployment with **plug-and-play functionality**. These switches enable seamless integration of intelligent systems, allowing valuable data collection, real-time decision-making, and operational efficiency improvements across a variety of automation applications.

### Physical Port

- IGS-800T-PN: 8-port 10/100/1000BASE-T RJ45 with auto-MDI/MDI-X.
- IGS-820TF-PN: 6-port 10/100/1000BASE-T RJ45 and 2 100/1000BASE-X SFP ports for flexible fiber uplink options.

### Layer 2 Features

- Complies with IEEE 802.3 10BASE-T, IEEE 802.3u 100BASE-TX, IEEE 802.3ab 1000BASE-T Ethernet standard
- Supports auto-negotiation and 10/100Mbps half/full duplex and 1000Mbps full duplex
- Prevents packet loss with back pressure (half-duplex) and IEEE 802.3x pause frame flow control (full duplex)
- High-performance Store and Forward architecture, broadcast storm control and runt/CRC filtering eliminate erroneous packets to optimize the network bandwidth
- Switching fabric: 16Gbps
- Integrated address look-up engine, supporting 4K absolute MAC addresses
- Supports jumbo frames up to 9K bytes
- Automatic MAC address learning and aging
- Supports CSMA/CD Protocol
- Compliant with PROFINET Conformance Class A
- Supports PROFINET PTCP filter for reliable communication on PROFINET network
- Supports PROFINET Traffic Pass-through with QoS

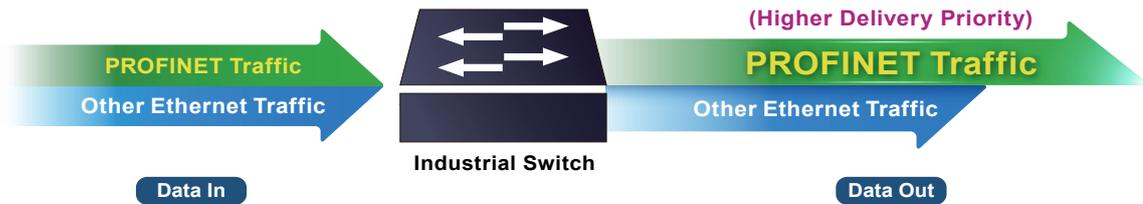
### Industrial Case and Installation

- IP30-rated compact metal enclosure
- Supports both DIN-rail and wall-mount installation
- 9~48V DC redundant power input with reverse polarity protection; includes removable terminal block for master and slave power connections
- Supports 24V AC power input
- Supports 6000 VDC Ethernet ESD protection.
- Operating temperature range: -40 to 75°C
- Designed to withstand free fall, shock, and vibration in industrial environments

*PROFINET Traffic Prioritization for Real-Time Control*

Both switches support **PROFINET Conformance Class A (CC-A)** to deliver real-time and reliable Ethernet communication in automation networks. They feature **advanced functions** that **detect and prioritize PROFINET traffic**, forwarding **time-sensitive control packets** ahead of other data. This ensures fast, synchronized communication between PLCs, HMIs, sensors, and actuators making the switches ideal for use in factory automation and control environments.

**PLANET PROFINET CC-A Protocol Conformance Industrial Switch**



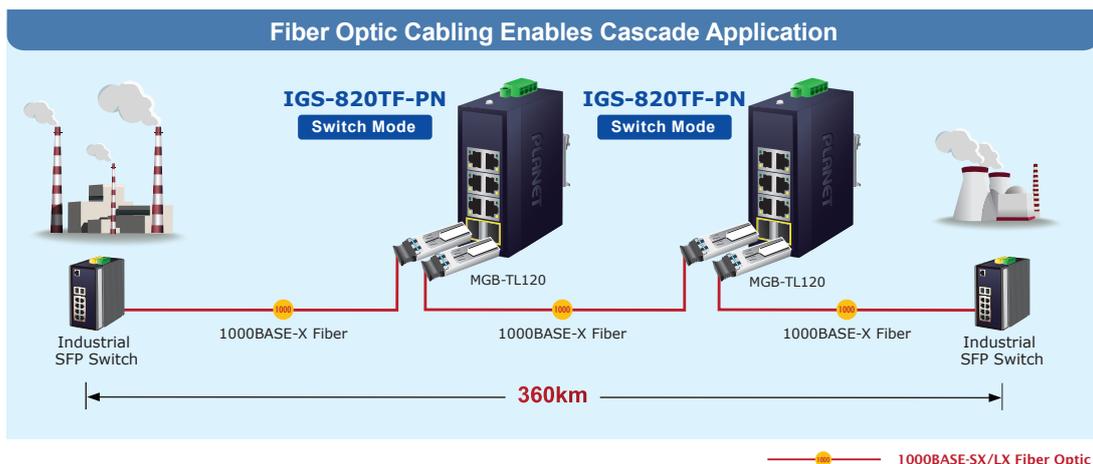
*Flexible Network Expansion with Energy Efficiency*

While the IGS-800T-PN focuses on high-speed copper connectivity, the IGS-820TF-PN offers dual SFP ports for flexible fiber uplinks, supporting both 100BASE-FX and 1000BASE-X transceivers. These switches are also built with advanced green networking technology, including **IEEE 802.3az Energy Efficient Ethernet** and **auto power-saving functions**, allowing **dynamic adjustment of power consumption** based on cable length and network activity.



*Fiber-Optic Link Capability Enables Seamless Extension*

The IGS-820TF-PN is equipped with **two dual-speed 100/1000BASE-X SFP interfaces**, enabling **long-distance fiber-optic uplinks** that can extend network deployment **up to 120km** depending on the fiber module. This allows seamless integration with remote automation systems and distributed control sites, making it ideal for use in transportation infrastructure, energy plants, and smart city environments.



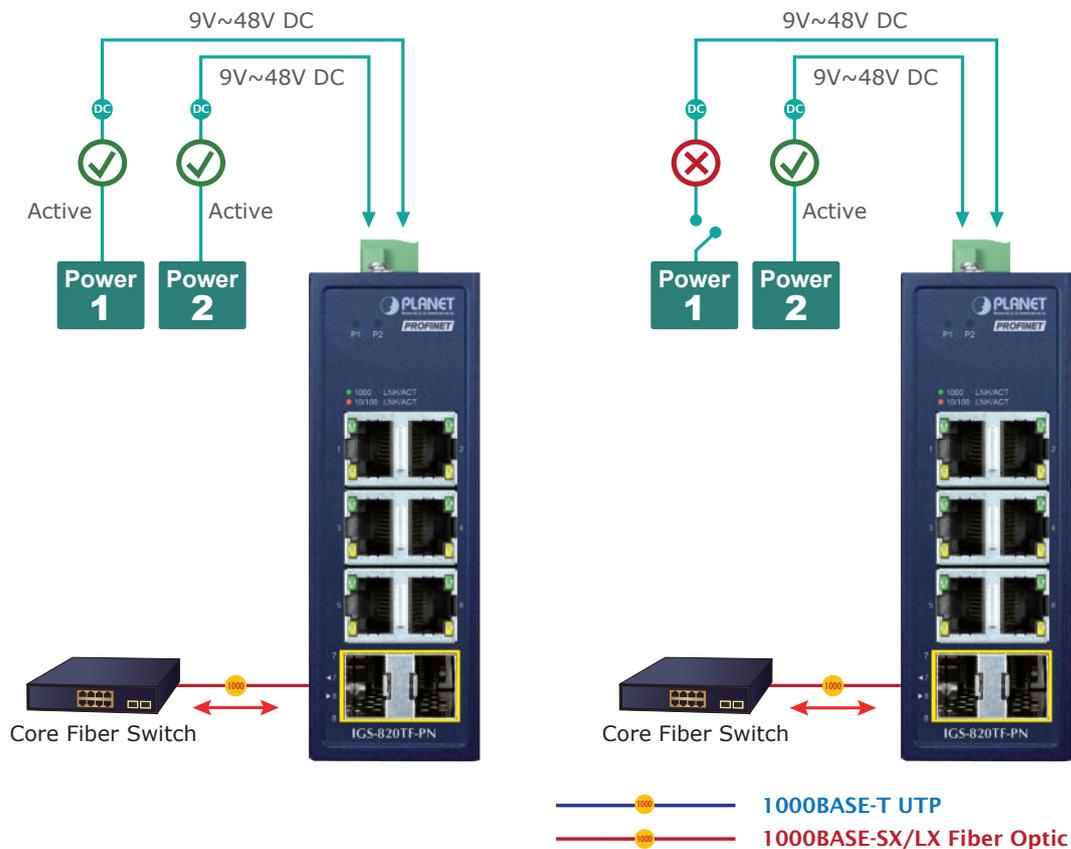
*High Switch Performance for Critical Applications*

The IGS-800T-PN and IGS-820TF-PN deliver high **switching capacity of 16Gbps** with **non-blocking wire-speed forwarding**, ensuring smooth and stable data transmission even under heavy traffic loads. Supporting **4K MAC address table** and **11.9Mpps throughput**, they meet the performance demands of real-time industrial control and multi-device environments.

*Reliable Power Redundancy and Installation Flexibility*

To ensure **uninterrupted operation**, both models support a **wide-ranging dual power input system** (9~48V DC or 24V AC) with reverse polarity protection and failover capability. Their **compact form factor** supports **DIN-rail and wall-mount installation**, offering flexible deployment in limited-space industrial enclosures or control panels.

## Non-stop Ethernet Server Dual Power Input with Auto Failover



### Optional installation method



\* The above pictures are for illustration only.

## Applications

PLANET's IGS-800T-PN and IGS-820TF-PN are high-performance PROFINET switches designed for industrial automation networks. Whether you're managing machine-level control, localized production areas, or extending connectivity across multiple sites via long-distance fiber links, these two models offer flexible, stable, and energy-efficient Ethernet solutions for a wide range of deployment needs.

### Ideal Use Cases for IGS-800T-PN – Reliable Connectivity in Control Cabinets and Equipment Zones

The IGS-800T-PN features an all-copper port design and compact form factor, making it ideal for installation in control panels, machine enclosures, and factory floor workstations. It's especially suitable for:

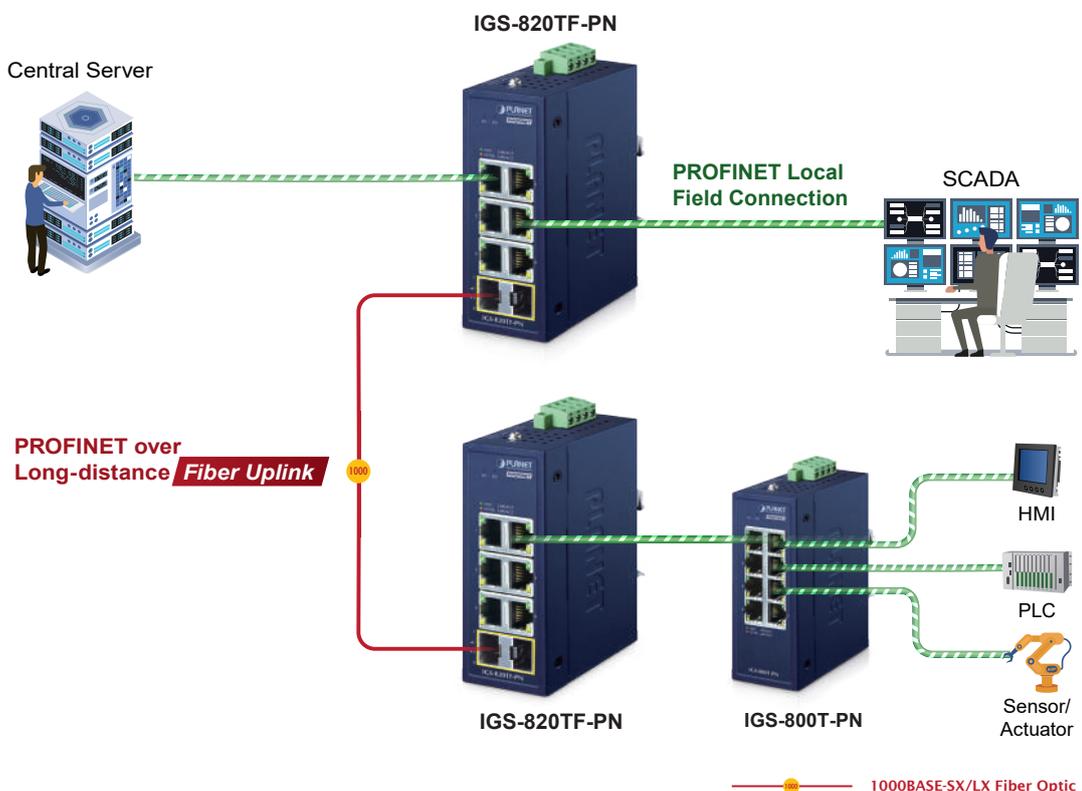
- Connecting PLCs, sensors, HMIs, and actuators within localized automation systems
- Integrating barcode scanners, sorting machines, and equipment controllers in smart warehouses
- Machine-level monitoring and edge communication in manufacturing processes
- Space-constrained environments like electrical cabinets and compact control stations

### Ideal Use Cases for IGS-820TF-PN – Long-Distance Expansion and Remote Connectivity

The IGS-820TF-PN includes 2 dual-speed 100/1000X SFP fiber ports for long-distance uplinks, enabling seamless network extension across buildings, floors, or remote sites. It is a perfect fit for:

- **SCADA systems**, connecting remote sensor nodes and **central servers** in utilities and energy plants
- Fiber-based deployment in **smart transportation infrastructure**, tunnels, and outdoor devices
- Industrial networking between **control units, smart meters**, and **SCADA/AIoT monitoring servers** in **power substations** and **water treatment systems**
- Multi-site or **inter-floor factory network extensions that require fiber uplinks**

By combining the IGS-800T-PN and IGS-820TF-PN, businesses can build a **comprehensive, scalable, and PROFINET-optimized industrial network**, from field-level connections to campus-wide infrastructure — ensuring reliable, real-time communication for any automation task.

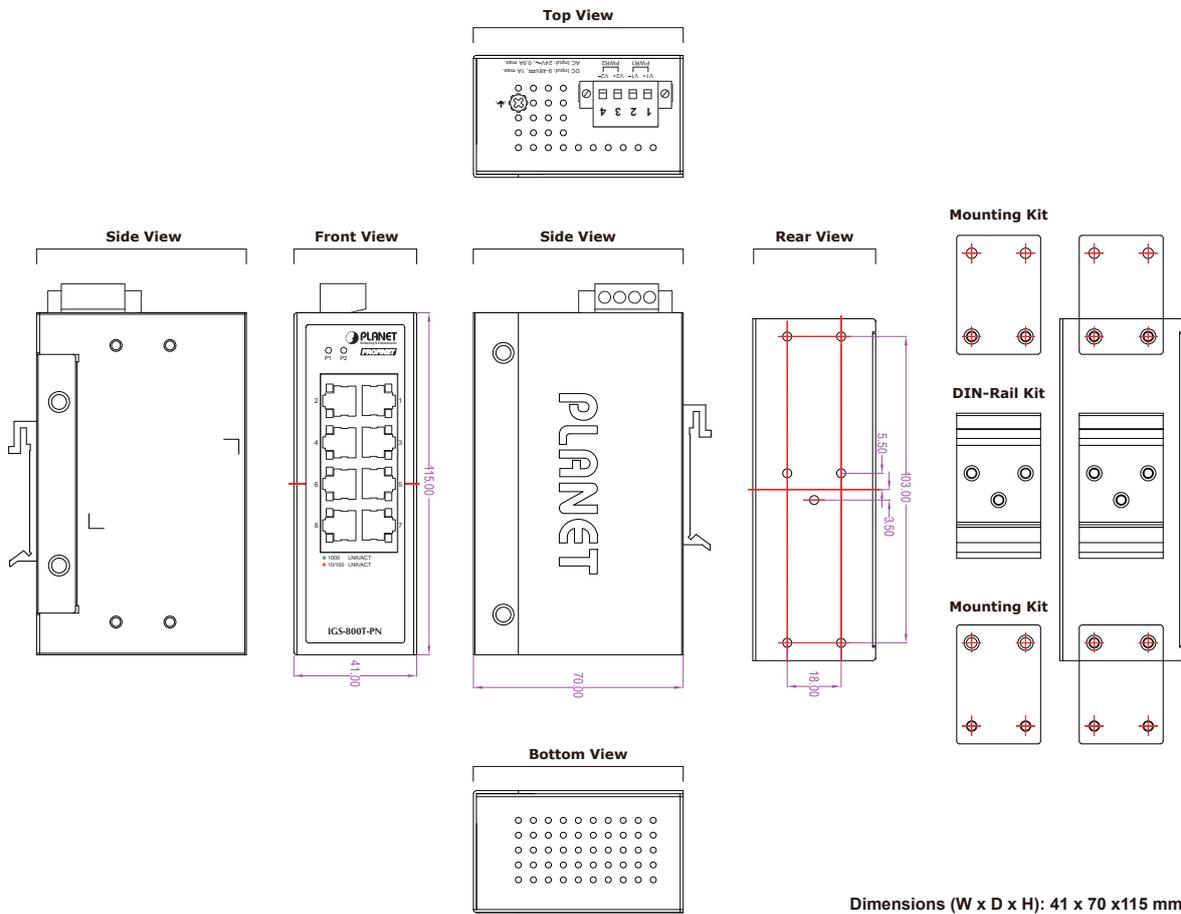


## Specifications

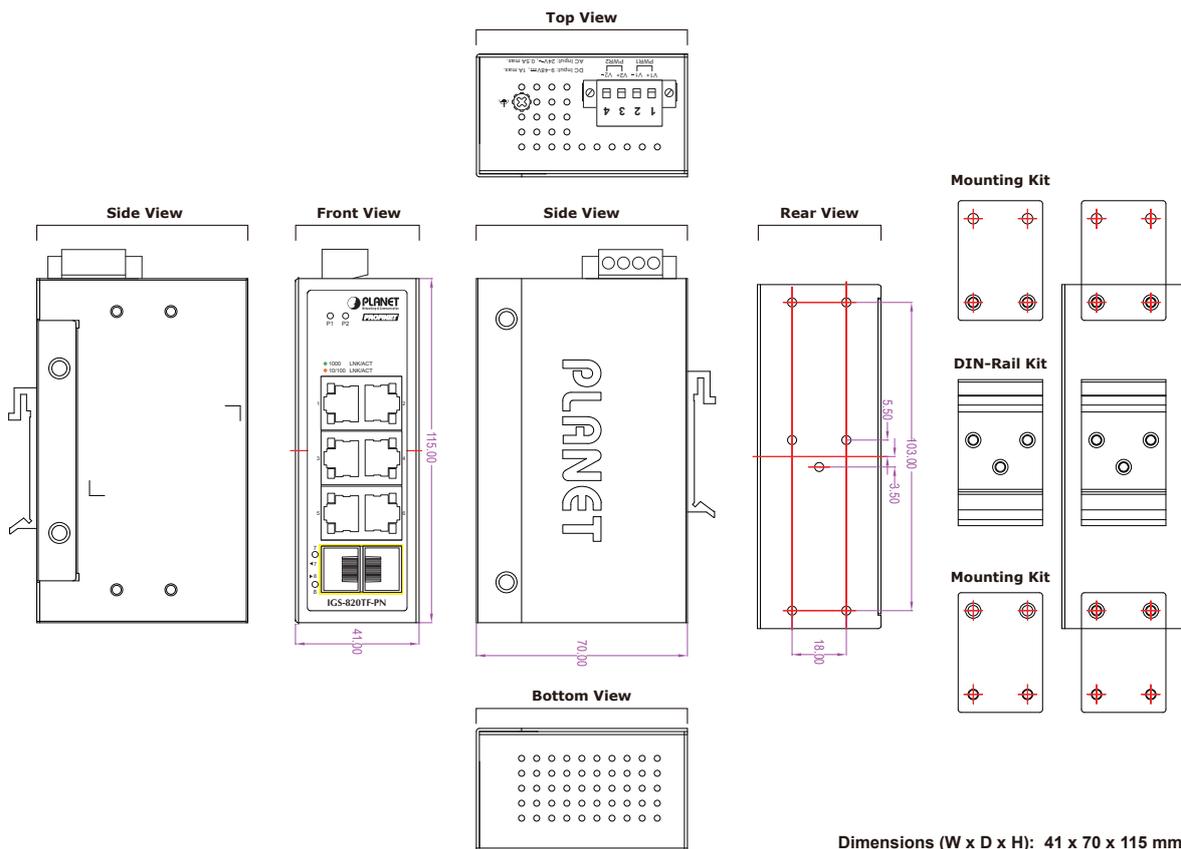
Model	IGS-800T-PN	IGS-820TF-PN
<b>Hardware Specifications</b>		
Copper Ports	8 x 10/100/1000BASE-T RJ45 TP auto-MDI/MDI-X, auto negotiation	6 x 10/100/1000BASE-T RJ45 TP auto-MDI/MDI-X, auto negotiation ports (Ports 1 to 6)
Connector	Removable 4-pin terminal block Pin 1/2 for Power 1; Pin 3/4 for Power 2	
SFP Slots	-	2 x 1000BASE-X SFP interfaces (Ports 7 to 8) Backward compatible with 100BASE-FX transceiver
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	System on: Max. 0.48 watts/1.6BTU Ethernet Full Loading: Max. 2.88 watts/9.8BTU	System on: Max. 1.44 watts/4.9BTU Ethernet Full Loading: Max. 4.8 watts/16.4BTU
Installation	DIN-rail kit and wall-mount ear	
Enclosure	IP30 metal case	
Dimensions (W x D x H)	41 x 70 x 115 mm	
Weight	305g	345g
LED	2 x LED for system and power: <ul style="list-style-type: none"> <li>■ Green: DC Power 1</li> <li>■ Green: DC Power 2</li> </ul> 2 x LED for each copper port: <ul style="list-style-type: none"> <li>■ Green: 1000Mbps LNK/ACT</li> <li>■ Amber: 10/100Mbps LNK/ACT</li> </ul>	2 x LED for system and power: <ul style="list-style-type: none"> <li>■ Green: Power 1</li> <li>■ Green: Power 2</li> </ul> 2 x LED for each port: <ul style="list-style-type: none"> <li>■ 10/100/1000T RJ45 Ports:               <ul style="list-style-type: none"> <li>Green: 1000Mbps LNK/ACT</li> <li>Amber: 10/100Mbps LNK/ACT</li> </ul> </li> <li>■ 100/1000BASE-X SFP Interfaces:               <ul style="list-style-type: none"> <li>Green: 1000Mbps LNK/ACT</li> <li>Amber: 100Mbps LNK/ACT</li> </ul> </li> </ul>
<b>Switch Specifications</b>		
Switch Processing Scheme	Store-and-Forward	
Address Table	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	16Gbps	
Throughput (packet per second)	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)	
PROFINET Support	Conformance Class A (CC-A), PTCP filter, QoS prioritization	
<b>Standards Conformance</b>		
Standards Compliance	IEEE 802.3 Ethernet IEEE 802.3u Fast Ethernet IEEE 802.3ab Gigabit Ethernet IEEE 802.3x Full-Duplex Flow Control IEEE 802.3az Energy Efficient Ethernet IEEE 802.1p Class of Service PROFINET protocol	
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)	
PROFINET Conformance Class	Conformance-Class A	
<b>Environment</b>		
Temperature	Operating: -40~75 degrees C Storage: -40~75 degrees C	
Humidity	Operating: 5~90%, Storage: 5~90% (non-condensing)	
Humidity	Operating: 5~95% (non-condensing) Storage: 5~95% (non-condensing)	

## Dimensions

### ■ IGS-800T-PN



### ■ IGS-820TF-PN



## Ordering Information

IGS-800T-PN	Compact Industrial 8-port 10/100/1000T PROFINET Switch (-40~75 degrees C operating temperature)
IGS-820TF-PN	Compact Industrial 6-port 10/100/1000T + 2-port 100/1000X SFP PROFINET Switch (-40~75 degrees C operating temperature)

## Related Products

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)
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-800T	Compact Industrial 8-port 10/100/1000T 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-500T	Compact Industrial 5-port 10/100/1000T Gigabit 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-510TF	Industrial Compact 4-port 10/100/1000T + 1-port 100/1000X SFP Gigabit Ethernet Switch
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)