

5-Port 10/100/1000Mbps Industrial Gigabit Ethernet Switch with Wide Operating Temperature



Slim type with more practicability and convenience

After entering the Industrial Ethernet market with popular ISW/IFT Fast Ethernet Switch/ Converter series, PLANET has released the advanced, slim-type industrial hardened Gigabit Ethernet Switch series in IP-30 metal case. The compact, IP-30 standard metal case allows either DIN rail or wall mounting for efficient use of cabinet space. The IGS-501T, one of the new models, is equipped with 5 10/100/1000Mbps auto negotiation ports and operates reliably in heavy industrial demanding environments.

Stable performance under difficult environments

The IGS-501T provides a high level of immunity against electromagnetic interference and heavy electrical surges which are usually found on plant floors or in curb side traffic control cabinets. Being able to operate under the temperature range from -40 to 75 degrees C coupled with hazardous location certification (Class 1 Division 2), the IGS-501T can be placed in almost any difficult environment. The IGS-501T also possesses an integrated power supply source with a wide range of voltages (12 to 48V DC) for worldwide high availability applications requiring dual or backup power inputs.

Robust Switch performance

The IGS-501T offers high performance switch architecture. With the 5 10/100/1000Mbps Gigabit Ethernet ports providing non-blocking switch fabric and wire-speed throughput as high as 10Gbps and the 2K MAC Address table, the IGS-501T can perform wire-speed packets transfer without risk of packet loss.

The flow control function enables the IGS-501T to provide fast and reliable data transfer. The Gigabit port with 9K Jumbo frame supported can handle extremely large amounts of data transmission in industrial topology that forward data to central control room.

All of the RJ-45 copper interfaces in the IGS-501T support 10/100/1000Mbps auto negotiation for optimal speed detection through RJ-45 Category 6, 5 or 5e cables. The standard auto-MDI/MDI-X support can detect the type of connection to any Ethernet device without requiring special straight or crossover cables.

Physical Port

- 5-port 10/100/1000Base-T RJ-45 with auto MDI/MDI-X function

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 mode
- High performance Store and Forward architecture, broadcast storm control, runt/CRC filtering eliminates erroneous packets to optimize the network bandwidth
- Prevents packet loss with back pressure (half-duplex) and IEEE 802.3x pause frame flow control (full-duplex)
- Backplane (Switching Fabric): 10Gbps
- Integrated address look-up engine, support 2K absolute MAC addresses
- 1M Bits on-chip buffer memory
- 9K Jumbo packet size support
- Automatic address learning and address aging
- CSMA/CD Protocol

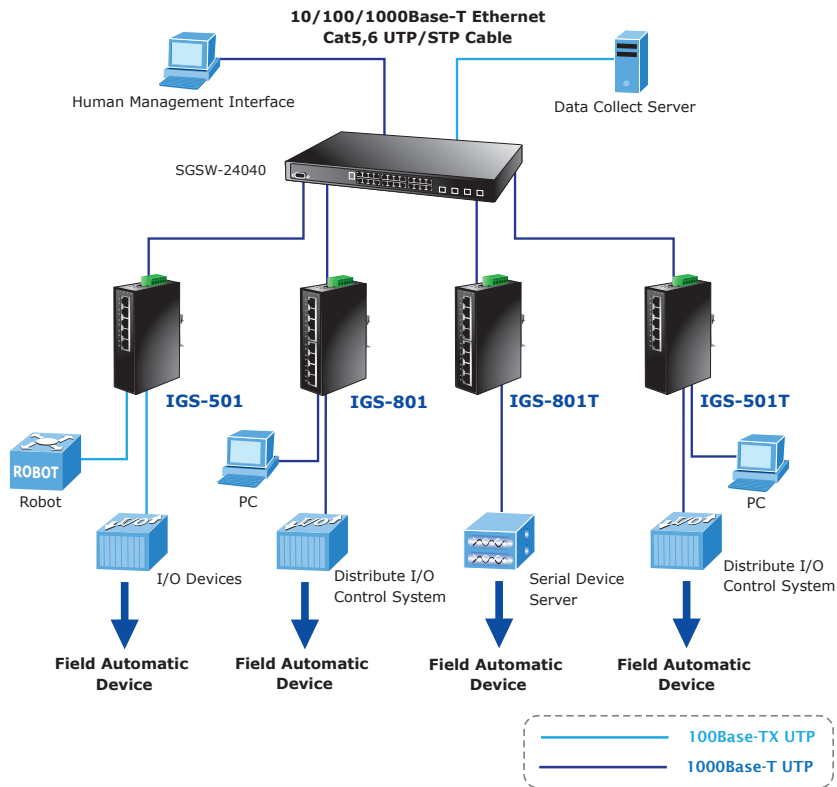
Industrial Case / Installation

- IP-30 metal case / protection
- DIN rail and wall mount design
- 12 to 48V DC, redundant power with polarity reverse protect function and connective removable terminal block for master and slave power, AC 24V power support
- Supports EFT protection 6000 VDC for power line
- Supports 6000 VDC Ethernet ESD protection
- -40 to 75 degrees C operating temperature

Applications

Industrial area Switch for data collection and forwarding

The IGS-501T is equipped with 5 10/100/1000Mbps ports that offer auto MDI / MDIX feature, 10Gbps non-blocking switch fabric and the 2K MAC Address table so that it can perform wire-speed packets transfer without risk of packet loss. The Gigabit ports supporting 9K jumbo packet can handle large amounts of data transmission in a secure topology linking to a backbone switch or high-power servers. The IGS-501T comes with a slim type IP 30 metal case that is ideal for most heavy industrial demanding environments.



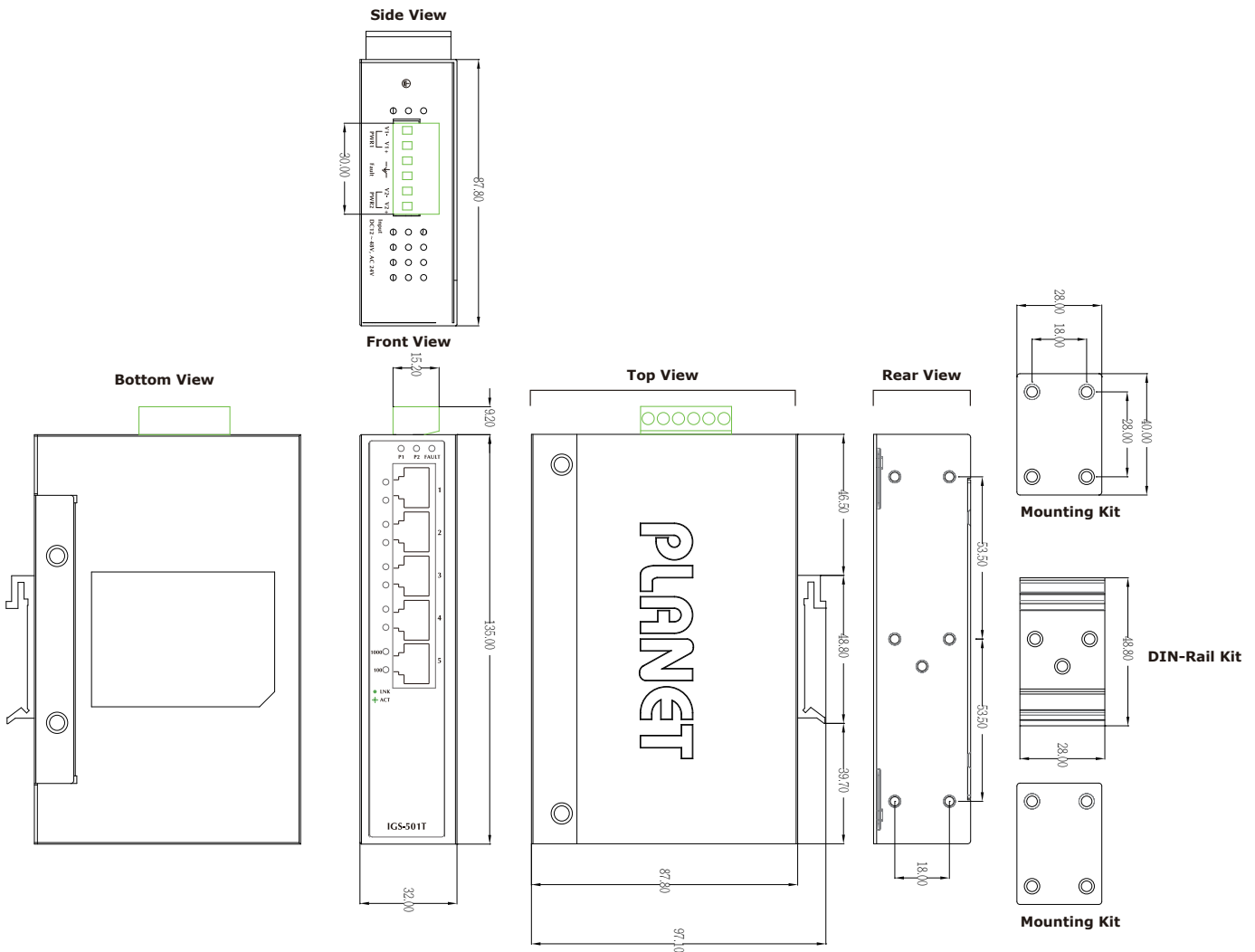
Specifications

Model	IGS-501T
Hardware Specifications	
Hardware Version	2
10/100/1000Base-T Ports	5
Dimensions (W x D x H)	135 x 87 x 32 mm
Weight	498g
Power Requirements	12~48V DC, Redundant power with polarity reverse protection function, 24V AC Power Support
Power Consumption / Dissipation	5.28 watts / 18BTU (DC 48V) 8.3 watts / 28BTU (AC 24V)
Installation	DIN Rail Kit and Wall Mount Ear
Alarm	Provides one relay output for power failure Alarm Relay current carry ability: 1A @ DC 24V
Switch Specifications	
Switch Processing Scheme	Store-and-Forward
Address Table	2K entries
Buffer Memory	1M Bits on-chip buffer memory
Flow Control	Back pressure for half duplex, IEEE 802.3x pause frame for full duplex
Switch Fabric	10Gbps
Throughput (packet per second)	7.4Mpps
Jumbo Frame	9K
Network Cables	10/100/1000Base-T Cat. 3, 4, 5, 5e, 6 UTP cable (100 meters, max.) EIA/TIA-568 100-ohm STP (100 meters, max.)

Standards Conformance

Standards Compliance	IEEE 802.3 Ethernet IEEE 802.3u Fast Ethernet IEEE 802.3ab Gigabit Ethernet IEEE 802.3x full-duplex flow control
Regulation Compliance	FCC Part 15 Class A, CE
Stability Testing	IEC60068-2-32(Free fall), IEC60068-2-27(Shock), IEC60068-2-6(Vibration)
Temperature	Operating: -40~75 degrees C Storage: -40~75 degrees C
Humidity	Operating: 5~90%, Storage: 5~90% (non-condensing)

Environment



Dimensions (unit = mm)

Ordering Information

IGS-501T

5-Port 10/100/1000Mbps Industrial Gigabit Ethernet Switch (-40~75 degrees C operate temperature)

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C-IGS-501Tv2