

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



Slim Type with More Practicability and Convenience

PLANET IGS-501T is an advanced, slim-type Industrial Gigabit Ethernet Switch consisting of 5 10/100/1000Mbps auto negotiation ports. With its IP30-rated metal case, it can operate reliably in heavy and hardened industrial demanding environments. Its compact metal case is designed to be mounted on a DIN rail or wall for the efficient use of cabinet space.

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 a 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.

Plug and Play

All of the RJ45 copper interfaces in the IGS-501T support 10/100/1000Mbps auto negotiation for optimal speed detection through RJ45 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-through or crossover cables.

Physical Port

- 5-port 10/100/1000BASE-T RJ45 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
- High-performance Store and Forward architecture, broadcast storm control and runt/CRC filtering eliminate 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, supporting 2K absolute MAC addresses
- 1M bits on-chip buffer memory
- 9K jumbo packet size
- Automatic address learning and address aging
- CSMA/CD Protocol

Industrial Case and Installation

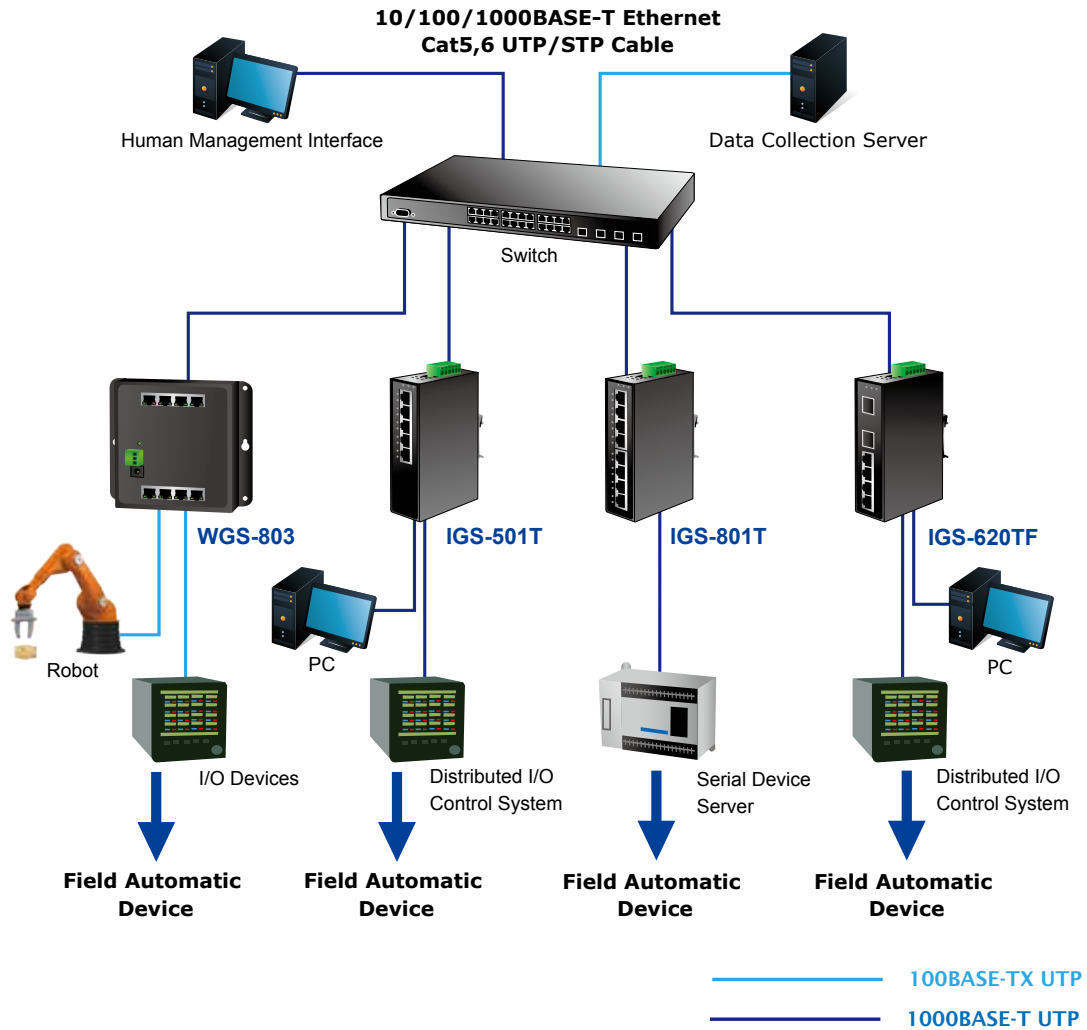
- IP30 metal case
- DIN-rail and wall-mount design
- 12 to 48V DC, redundant power with polarity reverse protect function and connective, removable terminal block for master and slave power; 24V AC power support
- Supports EFT protection 6000V DC for power line
- Supports 6000V DC Ethernet ESD protection
- -40 to 75 degrees C operating temperature

Application

Industrial Area Switch for Data Collection and Forwarding

The IGS-501T comes with a high-performance switch architecture suitable for industrial use. 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 transfer wire-speed packets without the risk of packet loss.

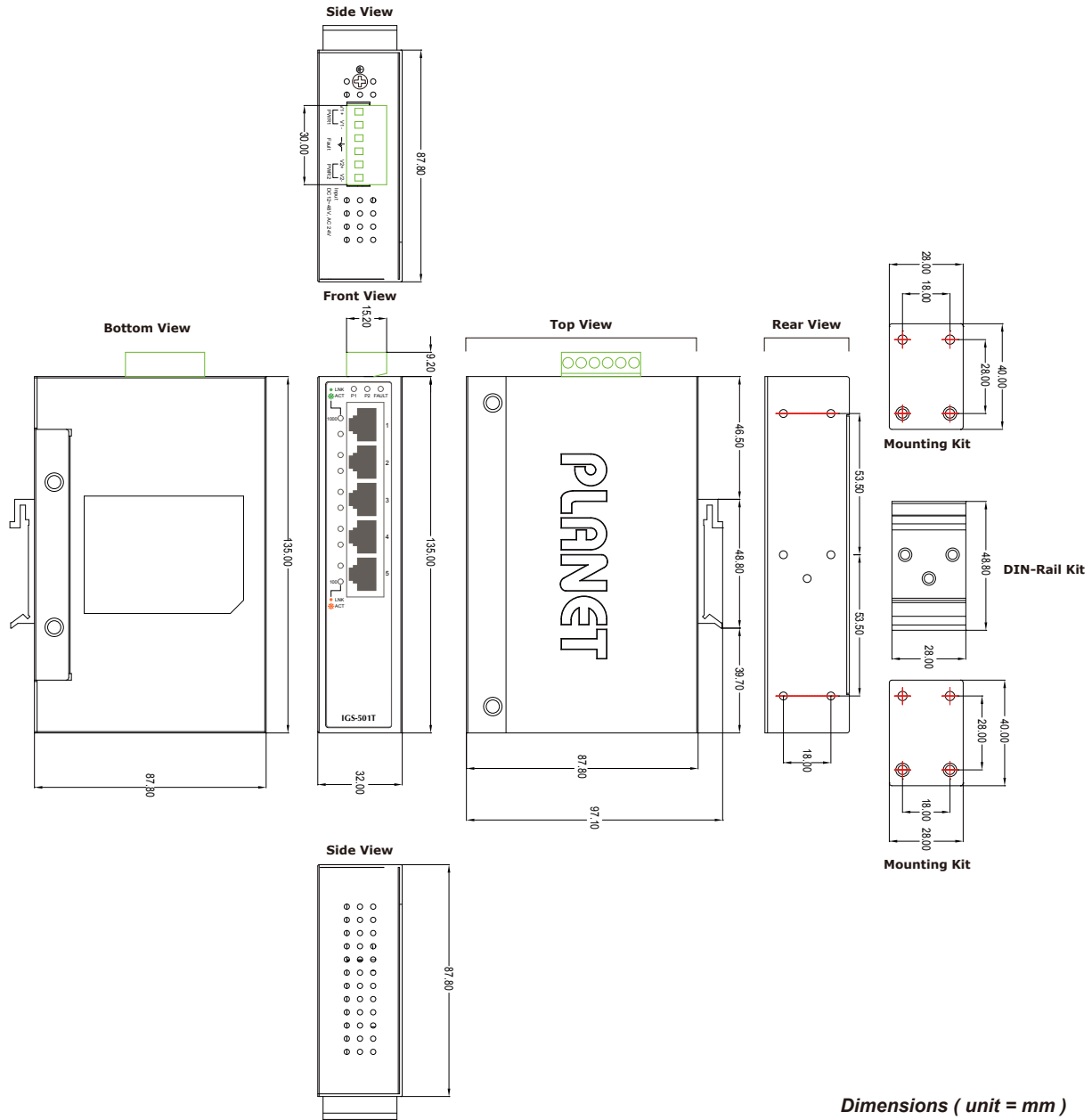
The flow control function enables the IGS-501T to provide fast and reliable data transfer. The Gigabit port with 9K jumbo frame supported can handle extremely large amounts of data transmission in a secure industrial topology that forwards data to the central control room.



Specifications

Model	IGS-501T
Hardware Specifications	
Hardware Version	4
Copper Ports	5 x 10/100/1000BASE-T RJ45 TP auto-MDI/MDI-X, auto negotiation
Connector	Removable 6-pin terminal block Pin 1/2 for Power 1; Pin 3/4 for fault alarm; Pin 5/6 for Power 2
Alarm	Provides one relay output for power failure Alarm relay current carry ability: 1A@DC 24V
LED	3 x LED for system and power: <ul style="list-style-type: none"> ■ Green: DC Power 1 ■ Green: DC Power 2 ■ Red: Power Fault 2 x LED for each copper port <ul style="list-style-type: none"> ■ Green: 1000Mbps LNK/ACT ■ Orange: 10/100Mbps LNK/ACT
ESD Protection	6KV
EFT Protection	6KV
Power Requirements	12~48V DC, redundant power with polarity reverse protection function, 24V AC power support
Power Consumption / Dissipation	5.28 watts/18BTU
Installation	DIN-rail kit and wall-mount ear
Enclosure	IP30 metal case
Dimensions (W x D x H)	135 x 87 x 32 mm
Weight	498g
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@64bytes
Jumbo Frame	9K
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 802.3x 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



Ordering Information

IGS-501T

5-port 10/100/1000T Industrial Gigabit Ethernet Switch (-40~75 degrees C operating temperature)

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