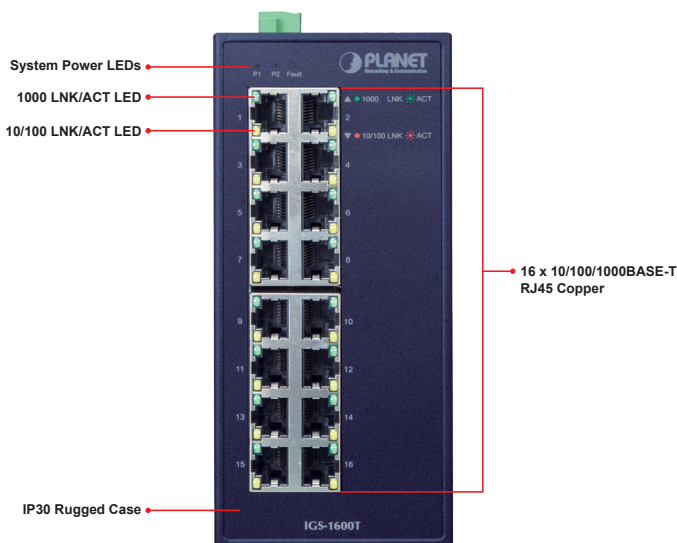# Industrial 16-Port 10/100/1000T Ethernet Switch

PLANET IGS-1600T **Industrial** high-density **16-port 10/100/1000T Gigabit Ethernet Switch** is equipped with a rugged IP30 metal case for stable operation in heavy industrial demanding environments. Thus, the IGS-1600T provides a high level of immunity against electromagnetic interference and heavy electrical surges which are usually found on plant floors or in curbside traffic control cabinets.

Industrial-grade, Flexible and Environmentally-hardened Design

The IGS-1600T possesses an integrated power supply source with a wide range of voltages (**12 to 48V DC** or **24V AC**) for worldwide high availability applications requiring dual or backup power inputs. Being able to operate under wide temperature range from **-40 to 75 degrees C**, the IGS-1600T can be placed in almost any difficult environment. The IGS-1600T also allows either DIN rail or wall mounting for efficient use of cabinet space.

Robust Protection

The IGS-1600T provides a contact discharge of ±6KV DC and air discharge of ±6KV DC for Ethernet ESD protection. It also supports ±6KV surge immunity to improve product stability and protects users' networks from devastating ESD attacks, making sure the flow of operation does not fluctuate.

Physical Port

- 16-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 10/100/1000Mbps half/full duplex mode
- Prevents packet loss with back pressure (half-duplex) and IEEE 802.3x pause frame flow control (full-duplex)
- Complies with IEEE 802.3az Energy Efficient Ethernet (EEE)
- IEEE 802.1p CoS
- Supports 8K MAC address
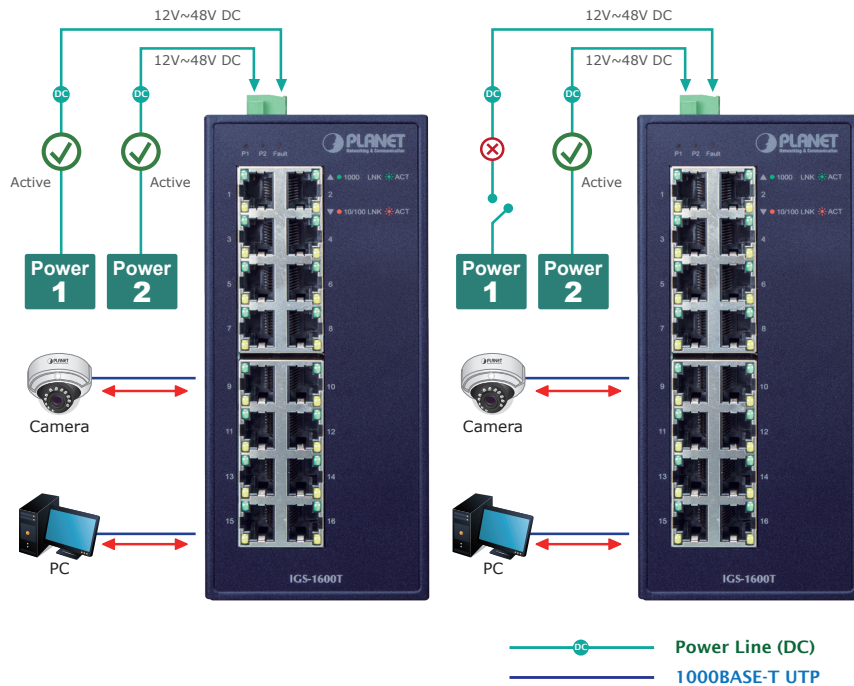- Automatic address learning and address aging

Industrial Case and Installation

- IP30 metal case
- DIN-rail and wall-mount designs
- 12 to 48V DC, redundant power with reverse polarity protection
- 24V AC power input
- Supports 6000 VDC Ethernet ESD protection
- -40 to 75 degrees C operating temperature
- Free fall, shock-proof and vibration-proof for industries

Dual Power Input for High Availability Network System

The IGS-1600T features a strong dual power input system with wide-ranging voltages (12V~48V DC or 24V AC) incorporated into customer's automation network to enhance system reliability and uptime. In the example below, when power supply 1 fails to work, the hardware failover function will be activated automatically to keep powering the IGS-1600T via power supply 2 alternatively without any loss of operation.

Non-stop Ethernet Service
Dual Power Input with Auto Failover

Energy Savings

The IGS-1600T, integrated with advanced green networking technologies and IEEE 802.3az protocol based power savings, is able to provide power savings of up to 50% but maintain high performance efficiently.
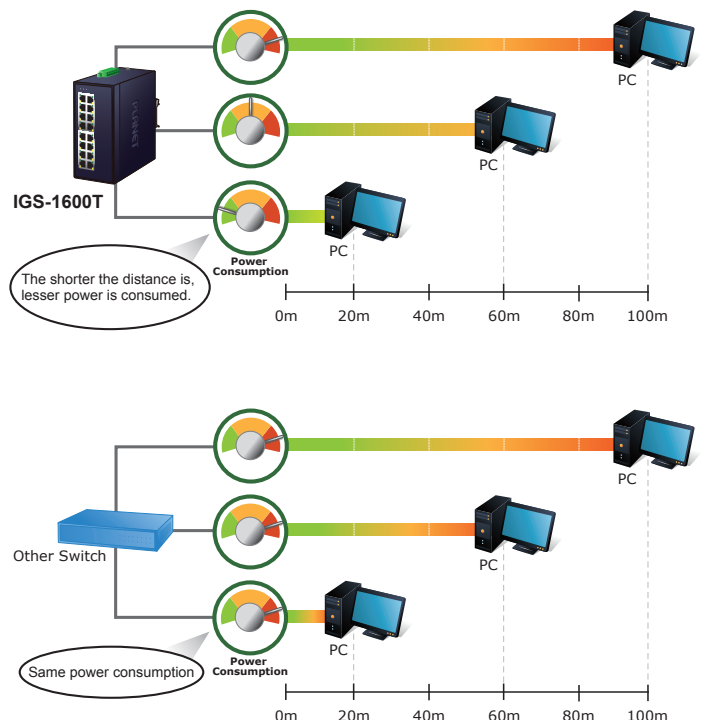
■ **Link Down power savings**

The Link Down power savings goes beyond IEEE specifications to automatically lower power consumption for a given port when it is not linked. With the Link Down power saving technology, the IGS-1600T will automatically adjust power usage of the ports that are shut down or not connected to network device.

■ **Intelligent power scale based on cable length**

Intelligent power scale is an intelligent algorithm that actively determines the appropriate power level based on cable length. When the IGS-1600T is connected with Ethernet cable shorter than 20m, a device can obtain maximum power savings because the IGS-1600T would automatically detect the Ethernet cable length and diminish power usage. The connected device can substantially reduce the overall power consumption, which makes a significant contribution to energy savings.
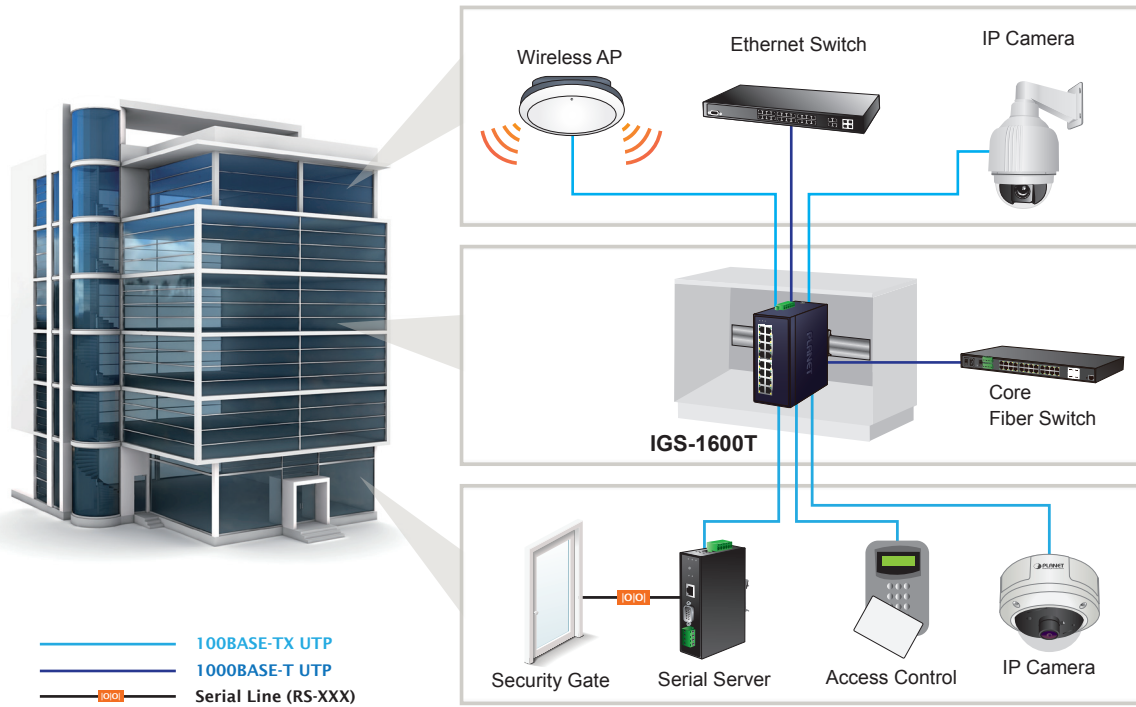
Intelligent Power Savings
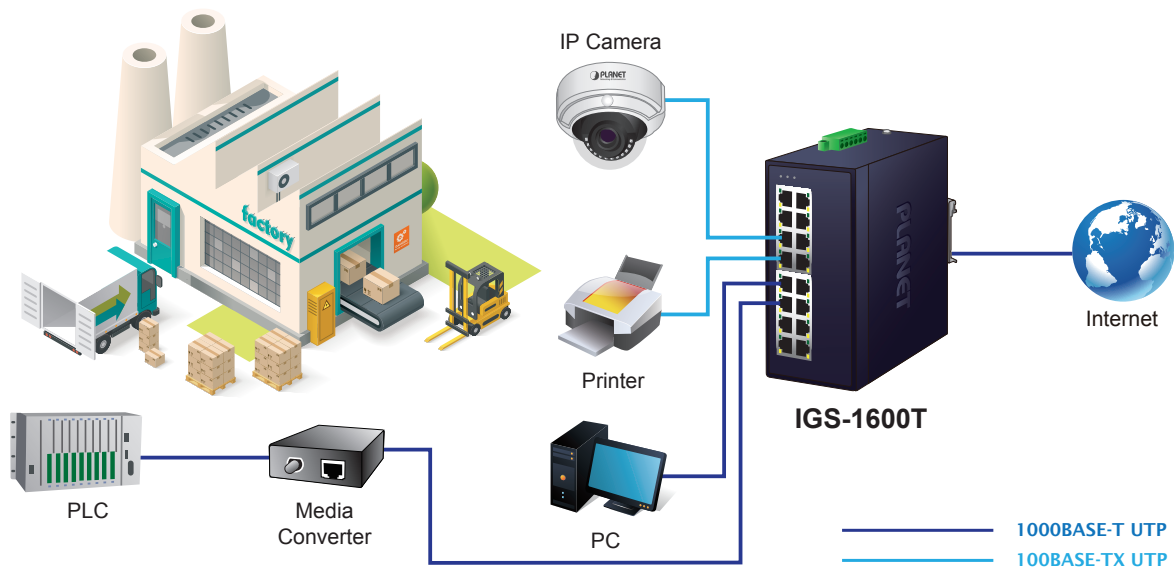
Applications

Industrial-grade Switch for Building Automation and Security

Suitable for buildings where security is strictly enforced, the IGS-1600T, with sixteen Gigabit Ethernet Switch interfaces, can easily build an infrastructure with an IP phone system, IP surveillance system, and wireless AP group in the harsh Industrial environment.
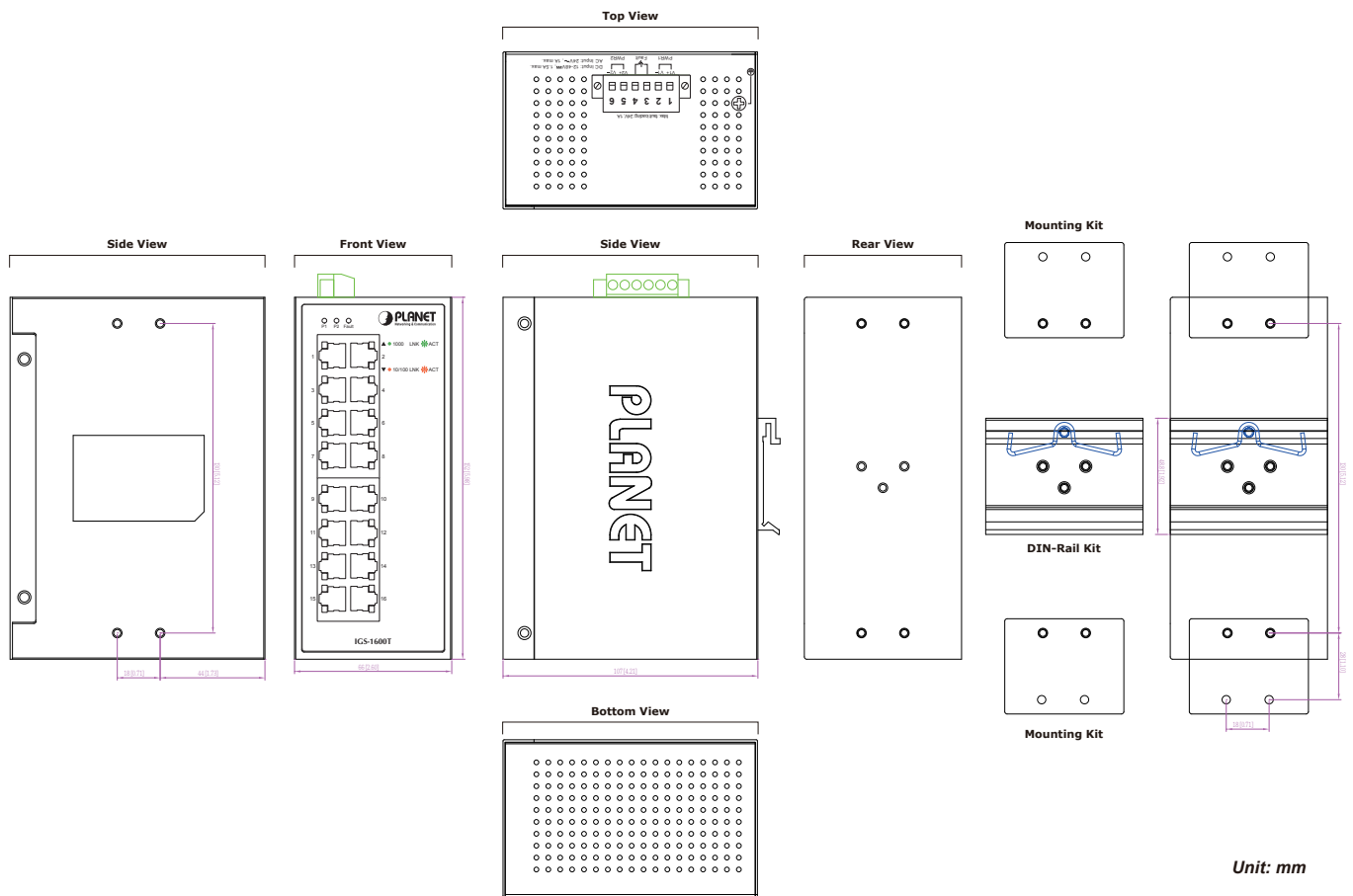

Designed for Heavy Industries

The IGS-1600T's IP30-rated metal case is particularly designed for heavy industries, such as factories, harbors, warehouses, and more. When installed at these establishments, it can enhance the work performance of these establishments by speedily transferring incoming and outgoing data.

Mechanical Drawing

Top View

Side View   **Front View**   **Side View**   **Rear View**   **Mounting Kit**

IGS-1600T

DIN-Rail Kit

Mounting Kit

Bottom View

Unit: mm

Specifications

Product	IGS-1600T
Hardware Specifications	
Gigabit Ethernet Switch Copper Ports	10/100/1000Mbps
Switch Architecture	Store-and-Forward
Switch Fabric	32Gbps (non-blocking)
Throughput (packet per second)	23.81Mpps@ 64 bytes
Address Table	8K entries, automatic source address learning and aging
Shared Data Buffer	4.1Mbits
Flow Control	IEEE 802.3x pause frame for full-duplex Back pressure for half-duplex
Jumbo Frame	10Kbytes
ESD Protection	6KV DC
Enclosure	IP30 metal case
Installation	DIN-rail kit and wall-mount kit
Connector	Removable 6-pin terminal block for power input - Pin 1/2 for Power 1 - Pin 3/4 for fault alarm - Pin 5/6 for Power 2
Alarm	One relay output for power failure. Alarm relay current carry ability: 1A @ 24V DC
Dimensions (W x D x H)	66 x 107 x 152 mm
Weight	743g
Power Requirements	Dual 12~48V DC 24V AC

Power Consumption	DC input: Max. 3.4 watts/11.6BTU (System on) Max. 8.7 watts/29.7BTU (Full loading)
	AC input: Max. 5 watts/17BTU (System on) Max. 13.99 watts/47.8BTU (Full loading)
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)
Regulatory Compliance	IEEE 802.3 10BASE-T IEEE 802.3u 100BASE-TX IEEE 802.3ab 1000BASE-T IEEE 802.3x flow control and back pressure IEEE 802.1p Class of Service IEEE 802.3az Energy Efficient Ethernet (EEE)
Environment	
Operating Temperature	-40 ~ 75 degrees C
Storage Temperature	-40 ~ 85 degrees C
Humidity	5 ~ 95% (non-condensing)

Ordering Information

IGS-1600T	Industrial 16-Port 10/100/1000T Ethernet Switch (-40~75 degrees C)

Related Products

IGS-1820TF	Industrial 16-Port 10/100/1000T + 2-Port 1000X SFP Ethernet Switch (-40~75 degrees C)
IGS-4215-16T2S	Industrial L2/L4 16-Port 10/100/1000T + 2-Port 100/1000X SFP Managed Switch (-40~75 degrees C)

IGS-1600T