

## Compact Industrial 4-Port 10/100/1000T 802.3at PoE + 1-Port 10/100/1000T Ethernet Switch (-40~75 degrees C)



### High Power PoE Solution for Harsh Industrial Network

The IGS-504PT is the smallest industrial-grade 4-Port PoE+ Switch in PLANET industrial PoE product line and is specially designed to be installed in a narrow environment. It provides up to 120-watt 802.3at PoE+ output capability and wire-speed Gigabit performance even in the harsh industrial environment. With **four 10/100/1000BASE-T** ports featuring **IEEE 802.3at PoE+** and **one extra 10/100/1000BASE-T** RJ45 copper interface for uplink connection.



The power system of the IGS-504PT supports **48~54V DC** power input for power redundancy and operational flexibility. It comes with a total power budget of up to **120 watts** for different kinds of PoE applications and operating temperature ranging from -40 to 75 degrees C in a rugged IP30 metal housing.

### Plug and Play High Power Sourcing Solution

Complying with the **IEEE 802.3at Power over Ethernet Plus** technology, the IGS-504PT provides up to **30 watts** of PoE output power to allow users to flexibly deploy standard and high powered devices simultaneously with no need of software configuration. Furthermore, the IGS-504PT can extend much longer distance by using PLANET PoE Extender for powering up the PoE PD devices which can be installed over more than 100 meters away. By daisy-chaining multiple PoE extenders, it offers the great flexibility of doubling, tripling or quadrupling the distance of PoE network.

### Interface

- 5 10/100/1000BASE-T Gigabit Ethernet RJ45 copper ports

### Power over Ethernet

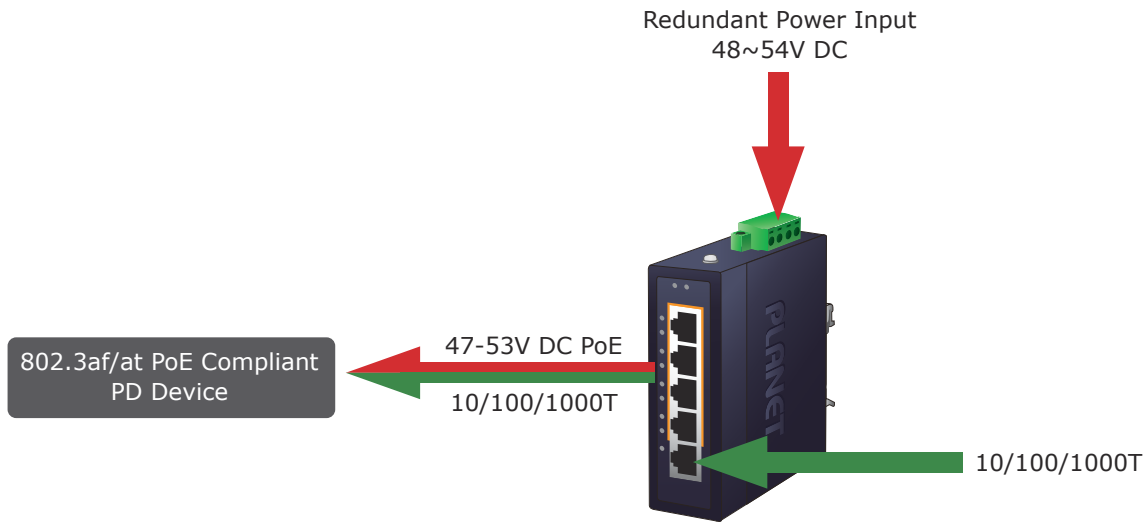
- Complies with IEEE 802.3at Power over Ethernet Plus, end-span PSE
- Backward compatible with IEEE 802.3af Power over Ethernet
- Up to 4 ports of IEEE 802.3af/at devices powered
- Up to 120-watt PoE budget
- Supports PoE power up to 30 watts for each PoE port
- Auto detects powered device (PD)
- Circuit protection prevents power interference between ports
- Remote power feeding up to 100m

### Layer 2 Switching

- Features Store-and-Forward mode with wire-speed filtering and forwarding rates
- IEEE 802.3x flow control for full duplex operation and back pressure for half duplex operation
- 2K MAC address table size
- 9K jumbo frame
- IEEE 802.1Q VLAN transparency
- Automatic address learning and address aging

### Industrial Case and Installation

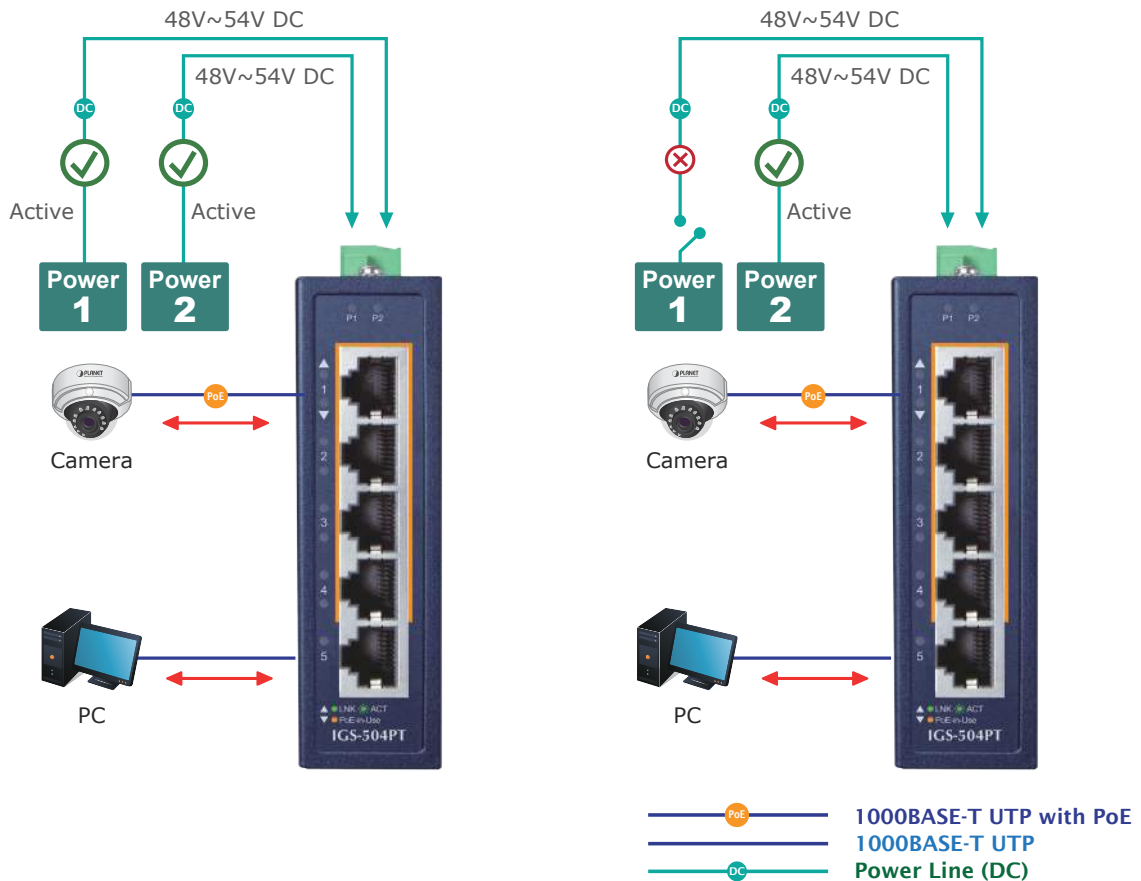
- IP30 metal case
- DIN-rail, wall-mount or side wall-mount design
- 48~54V DC redundant power with reverse polarity protection
- Supports 6KV DC Ethernet ESD protection
- -40 to 75 degrees C operating temperature



**Dual Power Input for High Availability Network System**

The IGS-504PT features a strong dual power input system with wide-ranging voltages (48V~54V DC) 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-504PT via Power Supply 2 without any break of operation.

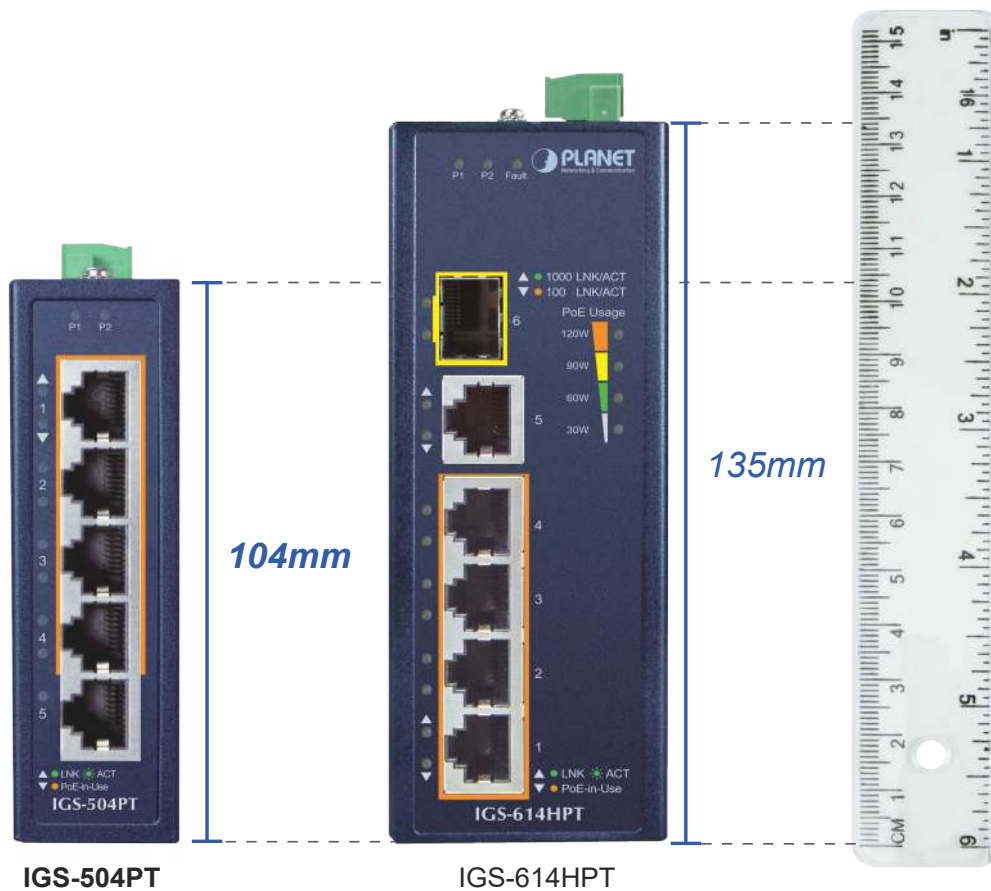
**Non-stop Ethernet Server  
Dual Power Input with Auto Failover**



**Small but Strong Enough for Any Hardened Environment**

With the IP30 industrial metal case, the IGS-504PT 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 without air conditioning. It features a ventilated construction in which a cooling fan is not necessary, thereby making its operation noiseless. Being able to operate under the temperature range from **-40 to 75 degrees C**, the IGS-504PT can be placed in almost any difficult environment.

**Compact Industrial 5-Port Switch**



**Robust Protection**

The IGS-504PT provides contact discharge of  $\pm 6\text{KV}$  DC and air discharge of  $\pm 8\text{KV}$  DC for Ethernet ESD protection. It also supports  $\pm 6\text{KV}$  surge immunity to improve product stability and protects users' networks from devastating ESD attacks, making sure the flow of operation does not fluctuate.

**Flexible and Easy Installation with Limited Space**

The compact-sized IGS-504PT is specially designed to be installed in a narrow environment, such as wall enclosure. It can be installed by fixed wall mounting or DIN rail, thereby making its usability more flexibly and easily in any space-limited location.



**DIN-rail Mounting**



**Wall Mounting**

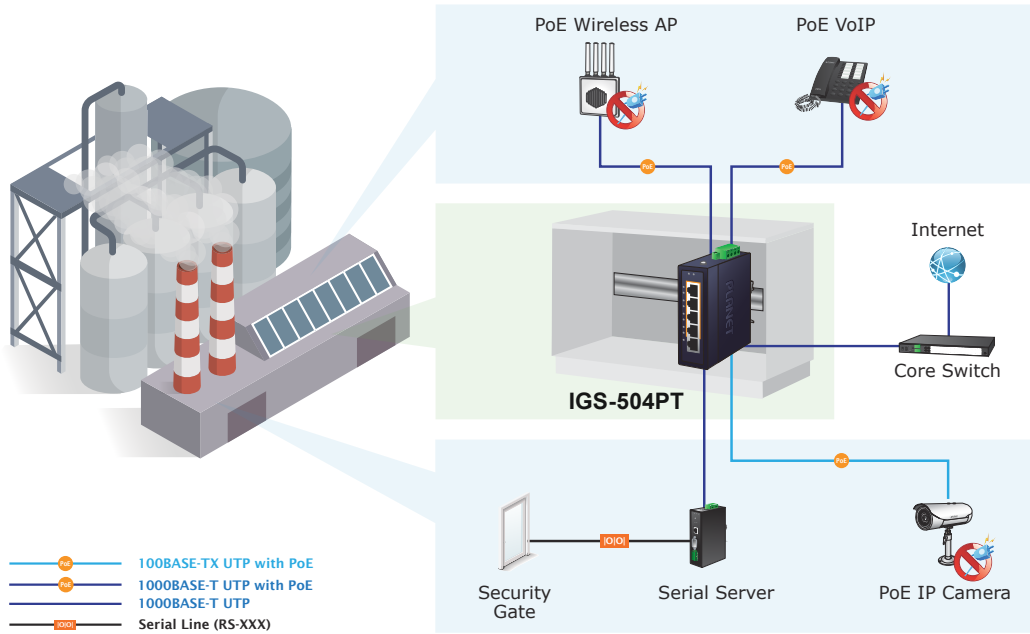


**Side Wall Mounting (Space saving)**

## Applications

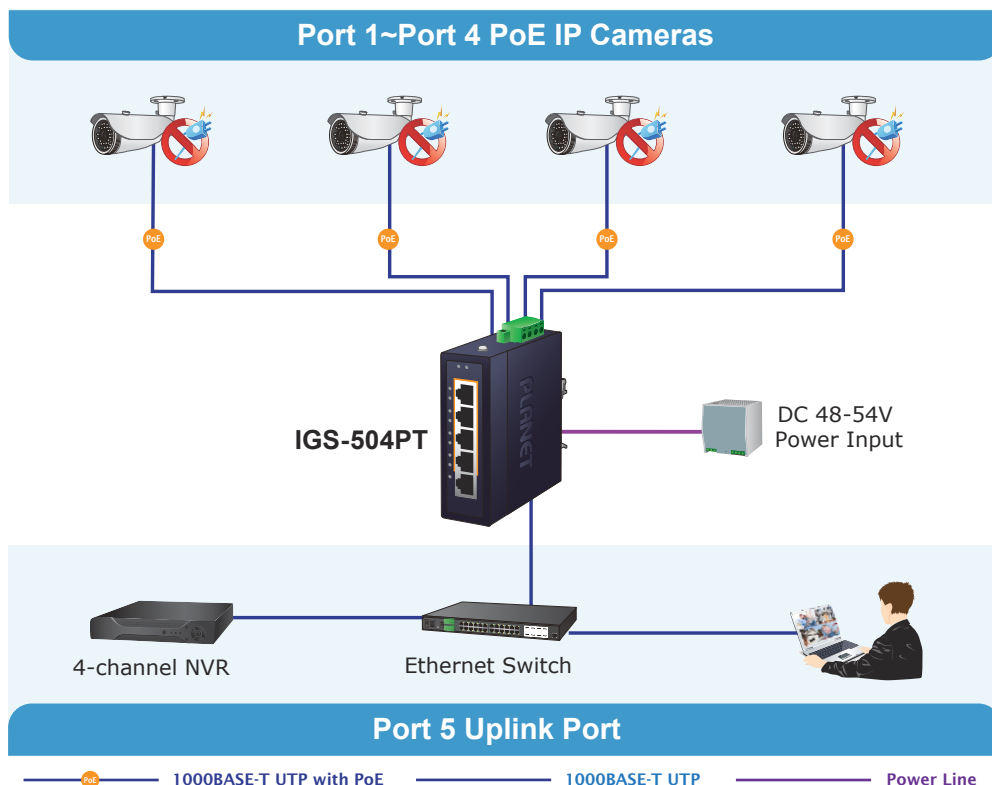
### Industrial-grade PoE+ Switch for Building Automation and Security

Suitable for buildings where security is strictly enforced, the IGS-504PT, with four Gigabit Ethernet 802.3at PoE+, in-line power interfaces, can easily build a power that can centrally control an IP phone system, IP surveillance system, and wireless AP group in the harsh Industrial environment. For instance, 4 PoE IP cameras or PoE wireless APs can be easily installed for surveillance demands or a wireless roaming environment in the industrial area. The IGS-504PT makes the installation of IP cameras or wireless APs easier and more efficient as it does not require electrical outlets.



### Perfect Integration Solution for IP PoE Camera and NVR System

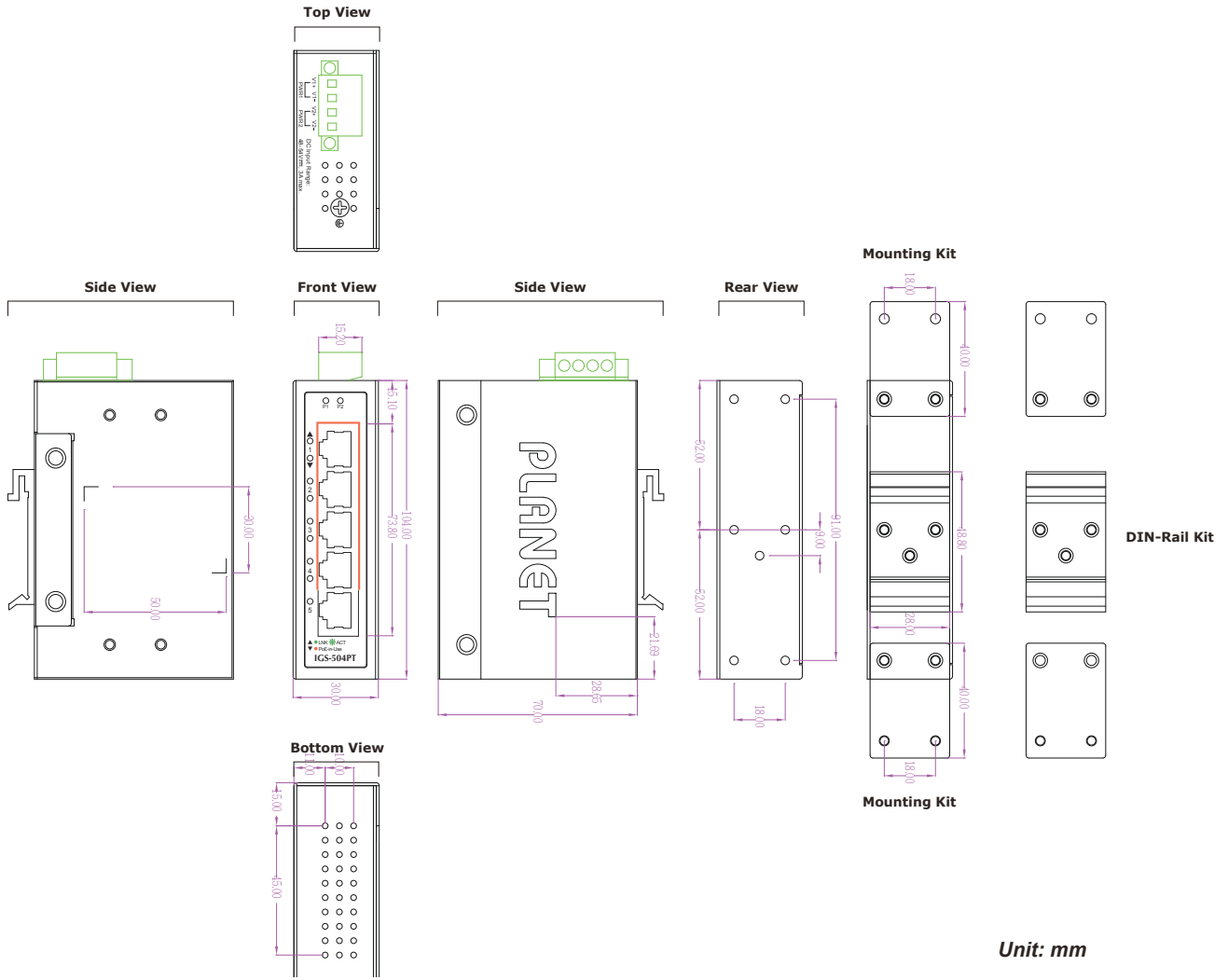
The IGS-504PT provides four 10/100/1000BASE-T 802.3at PoE+ ports which can offer sufficient PoE power to 4 PoE IP cameras at the same time. In addition, with the Gigabit interface, the IGS-504PT can connect to a core switch and send video streams to an NVR and monitoring center. Through the high-performance switch architecture, the IGS-504PT facilitates the recorded video files from the 4 PoE+ IP cameras to be saved in the NVR systems. Furthermore, the NVR systems can be controlled and monitored in both the local LAN and the remote site via Internet. The IGS-504PT undoubtedly brings an ideal secure surveillance system at a lower total cost.



## Product Specifications

Model	IGS-504PT
<b>Hardware Specifications</b>	
Copper Ports	5 10/100/1000BASE-T RJ45 auto-MDI/MDI-X ports
PoE Injector Ports	4 ports with 802.3at PoE+ injector function (Ports 1 to 4)
PoE Budget	120W maximum@75 degrees C
Connector	Removable 4-pin terminal block Pin 1/2 for Power 1; Pin 3/4 for Power 2
Power Requirements	48~54V DC, 3A (max.) Redundant power with reverse polarity protection
Power Consumption	<ul style="list-style-type: none"> <li>■ DC 48V: Max. 0.48 watts/1.63BTU (System) Max. 62.88 watts/214.5BTU ( Full Loading)</li> <li>■ DC 54V: Max. 0.54 watts/1.84BTU (System) Max. 123.12 watts/420BTU ( Full Loading)</li> </ul>
Dimensions (W x D x H)	30 x 70 x 104 mm
Weight	260g
Enclosure	IP30 metal case
Installation	DIN-rail kit and wall-mount kit
ESD Protection	6KV
<b>Switch Specifications</b>	
Switch Architecture	Store-and-Forward
Switch Fabric	10Gbps
Throughput (packet per second)	7.4Mpps@64bytes
Address Table	2K entries
Jumbo Frame	9Kbytes
Flow Control	Back pressure for half duplex IEEE 802.3x pause frame for full duplex
<b>Power over Ethernet</b>	
PoE Standard	IEEE 802.3at Power over Ethernet Plus/PSE Backward compatible with IEEE 802.3af Power over Ethernet/PSE
PoE Power Supply Type	End-span
Power Pin Assignment	1/2 (+), 3/6 (-)
PoE Power Output	Per port 48-54V DC Max. 30 watts@54V DC Max. 15 watts@48V DC
PoE Power Budget	120 watts
Max. Number of Class 4 PDs	4
<b>Standards Conformance</b>	
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)
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 (EEE) IEEE 802.3at Power over Ethernet Plus PSE IEEE 802.3af Power over Ethernet Plus IEEE 802.1p Class of Service
<b>Environment</b>	
Temperature	Operating: -40~75 degrees C Storage: -40~75 degrees C
Humidity	Operating: 5~90% (non-condensing) Storage: 5~90% (non-condensing)

## Dimensions



## Ordering Information

IGS-504PT	Compact Industrial 4-Port 10/100/1000T 802.3at PoE + 1-Port 10/100/1000T Ethernet Switch
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## Related Products

IGS-504HPT	Industrial 4-Port 10/100/1000T 802.3at PoE + 1-Port 10/100/1000T Gigabit Ethernet Switch
IGS-614HPT	Industrial 4-Port 10/100/1000T 802.3at PoE + 1-Port 10/100/1000T + 1-Port 100/1000XSFP Gigabit Ethernet Switch
IGS-624HPT	Industrial 4-Port 10/100/1000T 802.3at PoE + 2-Port 100/1000XSFP Gigabit Ethernet Switch
ISW-504PT	Industrial 4-Port 10/100TX 802.3at PoE+ plus 1-Port 10/100TX Ethernet Switch
ISW-514PTF	Industrial 4-Port 10/100TX 802.3at PoE+ plus 1-Port 100FX Ethernet Switch
IFGS-1022HPT	Industrial 8-Port 10/100TX 802.3at PoE + 2-Port Gigabit TP/SFP Combo Ethernet Switch
IGS-5225-4P2S	L2+ Industrial 4-Port 10/100/1000T 802.3at PoE + 2-Port 100/1000X SFP Managed Ethernet Switch

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IGS-504PT