

# Industrial 8-Port 10/100/1000T Wall-mounted Gigabit Ethernet Switch with 4-Port PoE+

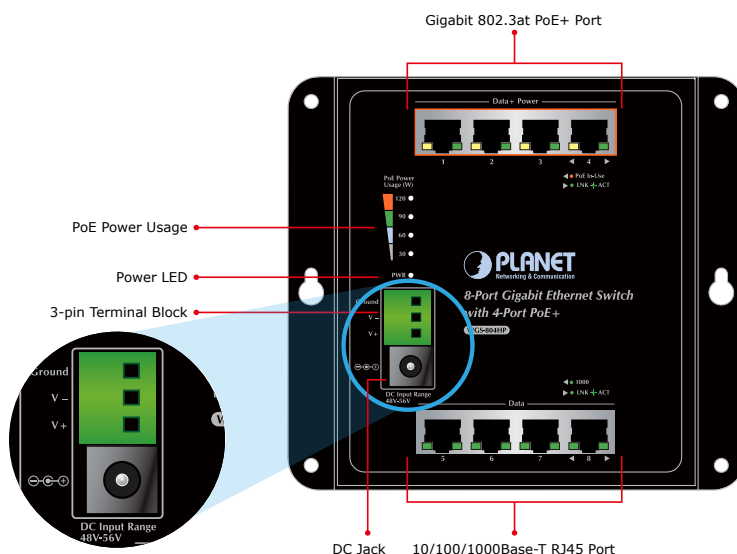


## Easily-deployed and Expanded PoE Network

Designed to be installed in a wall enclosure or simply mounted at any convenient location on a wall, PLANET WGS-804HP is an innovative, **wall-mounted industrial 8-port Gigabit Ethernet Switch with 4-port 802.3af/802.3at Power over Ethernet**. It comes in a compact but rugged IP30 metal housing. Featuring a total PoE budget of **120 watts**, ultra networking speed and operating temperature ranging from **-10 to 60 degrees C**, the WGS-804HP is an ideal solution to meeting the demand for sufficient PoE power for the following network applications.

- Building / Home automation network
- Internet of things (IoT)
- IP surveillance and wireless

The WGS-804HP is able to operate reliably, stably and quietly in any environment without affecting its performance, and provides a quick, safe and easy deployment of PoE PDs with power feeding.



## KEY FEATURES

### Physical Port

- **8-Port 10/100/1000BASE-T** Gigabit RJ-45 copper with 4-Port **IEEE 802.3at / af PoE** Injector (Port-1 to Port-4)

### Power over Ethernet

- Complies with IEEE 802.3at High Power over Ethernet end-span PSE
- Backward compliant with IEEE 802.3af Power over Ethernet end-span PSE
- Up to 4 ports of IEEE 802.3af / 802.3at devices powered
- Supports PoE Power up to 30.8 watts for each PoE port
- Auto detects powered device (PD)
- Circuit protection prevents power interference between ports
- Remote power feeding up to 100 meters

### Layer 2 Features

- High performance Store and Forward architecture; runt/CRC filtering eliminates erroneous packets to optimize the network bandwidth
- IEEE 802.3x flow control for full duplex operation and back pressure for half duplex operation
- 9K Jumbo frame supports in 1000Mbps duplex mode
- Automatic address learning and address aging

### Industrial Case / Installation

- Compact size, wall-mounted, magnetic wall mount and DIN-rail design
- IP30 metal chassis
- Supports -10 to 60 degrees C operating temperature
- Supports EFT 6000VDC protection for power line
- Supports ESD 6000VDC Ethernet protection
- LED indicators for real-time PoE usage
- 48V~56V DC input range for booting with polarity reverse protect function

### Innovative Wall-mount Installation

The WGS-804HP is specially designed to be installed in a narrow environment, such as wall enclosure or weak electric box. The compact, flat and wall-mounted design fits easily in any space-limited location. It adopts “**Front Access**” design, making the installing, cable wiring, LED monitoring and maintenance of the WGS-804HP placed in an enclosure very easy for technicians to manage. The WGS-804HP’s **fixed wall mounting**, **magnetic wall mounting** or **DIN rail** installation enables its efficient use of enclosure space, thereby making its usability more flexible.



### Centralized Power Distribution for Small Ethernet Networking

The WGS-804HP provides four PoE ports that combine up to **120 watts** of power output budget for catering to small scale of PoE network applications. Compliant with both IEEE 802.3at and IEEE 802.3af Power over Ethernet standards, each PoE port supplies up to 30 watts of power output and data transmission in Gigabit speed both delivered over one Cat.5e/6 Ethernet cable, powering remote PoE PD at distance up to 100 meters.

### Intelligent LED Indicator for Real-time PoE Usage

To facilitate auto power management, the WGS-804HP implements **Power Budget Control** function that helps to prevent power budget overloading. Moreover, the WGS-804HP helps users to monitor the current status of PoE power usage easily and efficiently via its advanced LED indication. Called “**PoE Power Usage**”, the front panel of the WGS-804HP has four LEDs indicating **30W**, **60W**, **90W** and **120W** of power usage.



### Ready to Power Up IoT

Internet is very popular the world over as users surf online daily with their mobile devices, such as smart phones and tablets, or laptop computers. However, users want more from the Internet, like how to use their mobile devices to control something via the Internet, thus making life more convenient. The WGS-804HP is based on such concept to help users implement the Internet of things (IoT) on the PoE network. Home automation is no longer a dream as Gigabit network performance plus power over Ethernet can easily drive IoT equipment, making it a smart home.

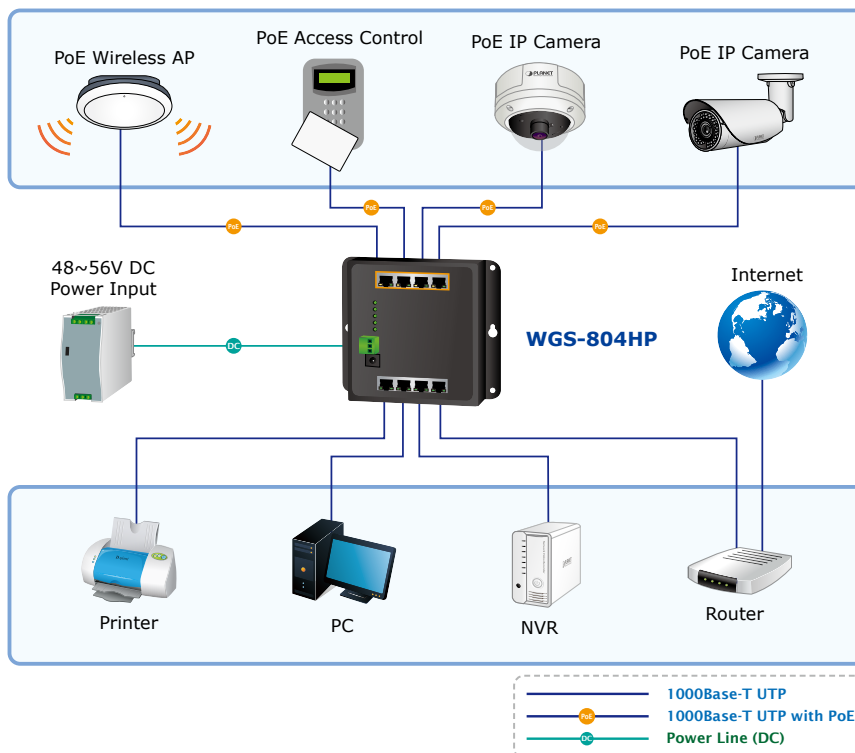
### Quick, Safe and Easy PoE Network Deployment

Carrying both Ethernet data and power simultaneously, the WGS-804HP reduces cabling requirements and eliminates the need for dedicated electrical outlets on the wall, ceiling or any unreachable place. It helps users to utilize just one Ethernet cable to install and deploy IP camera, wireless AP or VoIP phone more efficiently and cost-effectively.

## Applications

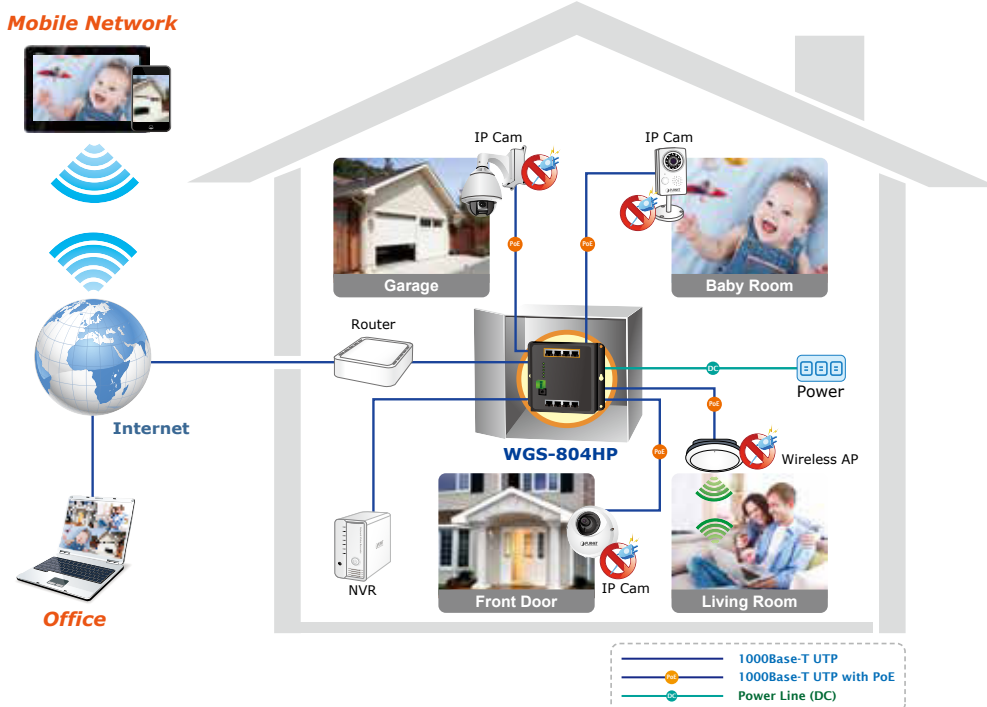
### Industrial Area Department / Workgroup PoE Switch

Providing 4 PoE, in-line power interfaces, the WGS-804HP can easily build a power centrally-controlled for 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 building a wireless roaming environment in the industrial area. Without the power-socket limitation, the WGS-804HP series makes the installation of IP cameras or Wireless APs easier and more efficiently.



### SOHO / Home-Use Gigabit Ethernet PoE Network Deployment

With its expanded home-use feature, the WGS-804HP 802.3at PoE+ Switch helps SOHO / home users to create an integrated network where power is so easily utilized for transmission of data and video. The wireless AP and PoE IP camera devices work perfectly with the WGS-804HP, which injects power through the Ethernet cables, thus helping SOHO / home users to build a cost-effective and reliable PoE networking environment easily.



## Specifications

|                                |   |  |
|--------------------------------|---|--|
| Model                          | WGS-804HP   |  |
| <b>Hardware Specifications</b> |   |  |
| Network Connector              | 8-Port RJ45 for 10/100/1000BASE-T   |  |
| PoE Inject Port                | 4-Port with 802.3af / 802.3at PoE injector function (Port-1 to Port-4)  |  |
| Switch Architecture            | Store and forward   |  |
| MAC Address Table              | 8K MAC address table with auto learning function  |  |
| Data Buffer                    | 1Mbit   |  |
| Switch Fabric                  | 16Gbps / non-blocking   |  |
| Switch Throughput              | 11.9Mpps@64Bytes  |  |
| Jumbo Frame                    | 9Kbytes   |  |
| Flow Control                   | IEEE 802.3x pause frame for full duplex<br>Back pressure for half duplex  |  |
| LED Indicators                 | Power LED:  | • Power (Green)  |
|                                | PoE Power Usage LED:  | • 30W, 60W, 90W, 120W (Green)  |
|                                | PoE Port (Port-1 to Port-4):  | • PoE-in-Use (Orange)<br>• LNK/ACT (Green)   |
|                                | 10/100/1000BASE-TX Port (Port-5 to Port-8):   | • 1000 (Green)<br>• LNK/ACT (Green)  |
| Connector                      | <ul style="list-style-type: none"> <li>■ Removable 3-pin terminal block for power input <ul style="list-style-type: none"> <li>- Pin 1/2 for DC Power</li> <li>- Pin 3 for earth ground</li> </ul> </li> <li>■ DC power jack with 2.0mm central pole</li> </ul> |  |
| Power Requirements             | 48~56V DC, 3A (max.)  |  |
| Power Consumption              | 140 watts / 478BTU  |  |
| ESD Protection                 | 6KV DC  |  |
| EFT Protection                 | 6KV DC  |  |
| Enclosure                      | IP30 metal  |  |
| Dimensions (W x D x H)         | 148 x 24.2 x 134 mm   |  |
| Weight                         | 510g  |  |
| Installation                   | Wall mount, magnetic wall mount and DIN-rail kit  |  |
| <b>Power over Ethernet</b>     |   |  |
| PoE Standard                   | IEEE 802.3af / 802.3at Power over Ethernet PSE  |  |
| PoE Power Supply Type          | End-span  |  |
| PoE Power Output               | IEEE 802.3af Standard   |  |
|                                | - Per port 48V~56V DC (depending on the power supply), max. 15.4 watts  |  |
|                                | IEEE 802.3at Standard   |  |
|                                | - Per port 50V~56V DC (depending on the power supply), max. 30 watts  |  |
| Power Pin Assignment           | 1/2(+), 3/6(-)  |  |
| PoE Power Budget               | 120 watts (max.)  |  |
| Max. Number of Class 2 PD      | 4   |  |
| Max. Number of Class 3 PD      | 4   |  |
| Max. Number of Class 4 PD      | 4   |  |
| <b>Standard Conformance</b>    |   |  |
| Standard Compliance            | IEEE 802.3  | Ethernet<br>Fast Ethernet<br>Gigabit Ethernet<br>Flow Control<br>Power over Ethernet<br>High Power over Ethernet |
|                                | IEEE 802.3u   |  |
|                                | IEEE 802.3ab  |  |
|                                | IEEE 802.3x   |  |
|                                | IEEE 802.3af  |  |
|                                | IEEE 802.3at  |  |
| Regulation 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)   |  |
| <b>Environment</b>             |   |  |
| Operating                      | Temperature:  | -10 ~ 60 degrees C   |
|                                | Relative Humidity:  | 5 ~ 95% (non-condensing)   |
| Storage                        | Temperature:  | -20 ~ 70 degrees C   |
|                                | Relative Humidity:  | 5 ~ 95% (non-condensing)   |
| <b>Accessory</b>               |   |  |
| Standard Accessories           | <ul style="list-style-type: none"> <li>■ User's manual x1</li> <li>■ Magnetic kit x 1</li> <li>■ DIN-rail kit x 1</li> <li>■ Wall-mounted kit X 1</li> <li>■ Dust cap x 8</li> <li>■ 3-pin Terminal Block Connector X 1</li> </ul>                              |  |

## Ordering Information

|           |                  |   |
|-----------|------------------|---|
| WGS-804HP | Art. No. 152(, - | 8-Port 10/100/1000T Wall-mounted Gigabit Ethernet Switch with 4-Port PoE+ |
|-----------|------------------|---|

## Accessories

|            |   |
|------------|---|
| PWR-120-48 | 120W 48V DC Single Output Industrial DIN Rail Power Supply (-10 ~ 60 degrees C) |
| PWR-240-48 | 240W 48V DC Single Output Industrial DIN Rail Power Supply (-10 ~ 60 degrees C) |

## Related Products

|              |   |
|--------------|---|
| WNAP-W2200   | 300Mbps 802.11n Wireless In-wall PoE Access Point               |
| WNAP-C3220   | 300Mbps 802.11n Wireless Ceiling Mount Range Extender           |
| WDAP-C7200AC | 1200Mbps 802.11ac Dual Band Ceiling Mount Wireless Access Point |
| IAP-2000PE   | Industrial 802.11n Wireless Access Point                        |
| ICA-3110     | HD Ultra-mini Bullet IR IP Camera                               |
| ICA-5250     | Full HD Ultra-mini Vandal Dome                                  |
| ICA-HM101    | 2 Mega-pixel PoE Cube IP Camera                                 |
| ICA-4210P    | 60fps Full HD IR IP Camera with Remote Focus and Zoom           |
| ICA-8500     | 5 Mega-pixel PoE Fish-Eye IP Camera                             |
| PWR-120-48   | DC Single Output Industrial DIN Rail Power Supply Units         |
| PWR-240-48   | DC Single Output Industrial DIN Rail Power Supply Units         |
| PWR-400-48   | DC Single Output Industrial DIN Rail Power Supply Units         |