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

WGS-804HP User's Manual

# **Table of Contents**

Ι.	Package Contents	د .
2.	Hardware Description	. 4
	2.1 Terminal Block Connector Pinouts	. 4
	2.2 LED Indicators	. 5
	2.3 Product Specifications	. 7
	2.4 Physical Dimensions	10
3.	Installation	11
	3.1 Wall-mount Installation	11
	3.2 DIN-rail Mounting Installation	12
	3.3 Magnet Installation	13
4.	Customer Support	14

## 1. Package Contents

Thank you for purchasing PLANET WGS-804HP Industrial 8-port 10/100/1000T Wall-mounted Gigabit Ethernet Switch with 4-port PoE+. "Wall-mounted PoE+ Switch" mentioned in this Guide refers to the WGS-804HP.

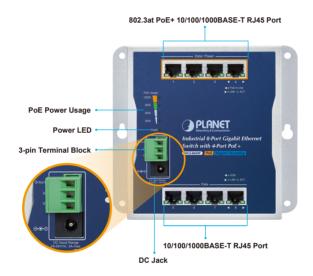
Open the box of the Wall-mounted PoE+ Switch and carefully unpack it. The box should contain the following items  $\frac{1}{2} \left( \frac{1}{2} \right) = \frac{1}{2} \left( \frac{1}{2} \right) \left( \frac{1}{$ 



If any item is found missing or damaged, please contact your local reseller for replacement.

# 2. Hardware Description

The front panel of the WGS-804HP Wall-mounted PoE+ Switch consists of 8 auto-sensing 10/100/1000Mbps Ethernet RJ45 ports. The LED indicators are also located on the RJ45 ports of the Wall-mounted PoE+ Switch.



#### 2.1 Terminal Block Connector Pinouts

To install the 3-pin Terminal Block Connector on the WGS-804HP, simply follow the following steps:

**Step 1:** Insert positive DC power wire into V+, negative DC power wire into V-, and ground wire into Ground.



**Step 2:** Tighten the wire-clamp screws for preventing the wires from loosening and plug into the Wall-mounted PoE+ Switch.



- 1. The wire gauge should be in the range from 12 to 24 AWG.
- 2. The device must be grounded.
- 3. The DC power input range is  $48V \sim 54V$  DC.

#### 2.2 LED Indicators

#### ■ System

LED	Color	Function
PWR Gree		Lights to indicate that the Switch has power.

■ PoE 10/100/1000BASE-T Interfaces (Ports 1 to 4)

LED	Color	Function	
	Green	Lights	To indicate the link through that port is successfully established.
LNK/ACT		Blinks	To indicate that the switch is actively sending or receiving data over that port.
		Off	If LNK/ACT LED is off, it indicates that the port is link-down.
Defin Hee	Amber	Lights	To indicate the port is providing DC in-line power.
PoE-in-Use		Off	To indicate the connected device is not a PoE powered device (PD).

#### ■ 10/100/1000BASE-T Interfaces (Ports 5 to 8)

LED	Color	Function	
	Green	Lights	To indicate the link through that port is successfully established.
LNK/ACT		Blinks	To indicate that the switch is actively sending or receiving data over that port.
		Off	If LNK/ACT LED is off, it indicates that the port is link-down.
1000	Green	Lights	To indicate that the port is operating at <b>1000Mbps</b> .
1000		Off	If 1000 LED is off, it indicates that the port is operating at <b>10/100Mbps</b> .

#### ■ PoE Power Usage (Unit: Watt)

LED	Color	Function		
30	Amber	Lights	To indicate the system consumes over 30-watt PoE power budget.	
60	Amber	Lights	To indicate the system consumes over 60-watt PoE power budget.	
90	Amber	Lights	To indicate the system consumes over 90-watt PoE power budget.	
120	Amber	Lights	To indicate the system consumes over 120-watt PoE power budget.	

# 2.3 Product Specifications

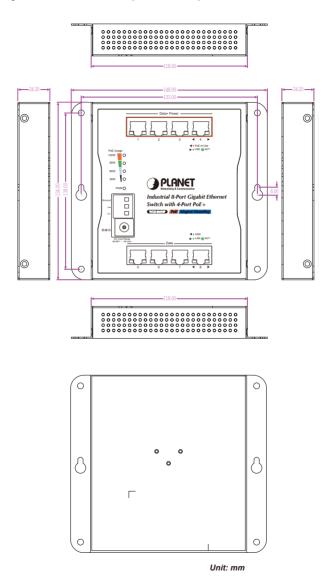
Product	WGS-804HP			
Hardware Specification	ardware Specifications			
Copper Ports	8 10/100/1000BASE-T RJ45 auto-MDI/MDI-X ports			
PoE Inject Port	4-Port with 802.3af/802.3at PoE injector function (Ports 1 to 4)			
Connector	■ Removable 3-pin terminal block for power input - Pin 1/2 for Power (Pin 1: V+ / Pin 2: V-) - Pin 3 for earth ground ■ DC power jack with 2.0mm central pole			
Power Requirements	48V~54V DC, 3A (max.)			
Power Consumption/ Dissipation	Max.130 watts/443 BTU			
Dimensions (W x D x H)	148 x 25 x 134 mm			
Weight	561g			
ESD Protection	Contact Discharge 6KV DC Air Discharge 6KV DC			
Enclosure	IP30 metal			
Installation	Wall mount, magnetic wall mount and DIN-rail kit			
LED	Power LED: Power (Green)  PoE Power Usage LED: 30W, 60W, 90W, 120W (Amber)  PoE Ports (Ports 1 to 4): PoE-in-Use (Amber) LNK/ACT (Green)  10/100/1000BASE-TX Ports (Ports 5 to 8): 1000 (Green) LNK/ACT (Green)			

Switch Architecture Store-and-Forward  Switch Fabric 16Gbps/non-blocking  Switch Throughput@64 bytes 11.9Mpps @64 bytes  MAC Address Table 8K entries  Shared Data Buffer 1Mbit  Flow Control IEEE 802.3x pause frame for full duplex Back pressure for half duplex  Jumbo Frame 9KB  Power over Ethernet  PoE Standard IEEE 802.3af/802.3at Power over Ethernet PSE  PoE Power Supply Type IIEEE 802.3af Standard - Per port 48V~54V DC (depending on the power supply), max. 15.4 watts IEEE 802.3at Standard - Per port 50V~54V DC (depending on the power supply), max. 36 watts  Power Pin Assignment 1/2(+), 3/6(-)  PoE Power Budget 120 watts (depending on power input)  Max. Number of Class 2 PDs  Max. Number of Class 3 PDs  Max. Number of Class 4 PDs  Standards Conformance  Regulatory Compliance				
Switch Fabric 16Gbps/non-blocking  Switch Throughput@64 bytes  MAC Address Table 8K entries  Shared Data Buffer 1Mbit  Flow Control IEEE 802.3x pause frame for full duplex Back pressure for half duplex  Jumbo Frame 9KB  Power over Ethernet  POE Standard IEEE 802.3af/802.3at Power over Ethernet PSE  PoE Power Supply Type  IEEE 802.3af Standard - Per port 48V~54V DC (depending on the power supply), max. 15.4 watts  IEEE 802.3at Standard - Per port 50V~54V DC (depending on the power supply), max. 36 watts  Power Pin Assignment 1/2(+), 3/6(-)  PoE Power Budget 120 watts (depending on power input)  Max. Number of Class 2 PDs  Max. Number of Class 3 PDs  Max. Number of Class 4 PDs  Standards Conformance  Regulatory FCC Part 15 Class 4 CE	Switch Specifications			
Switch Throughput@64 bytes  MAC Address Table Shared Data Buffer  IEEE 802.3x pause frame for full duplex Back pressure for half duplex  Jumbo Frame  9KB  Power over Ethernet  PoE Standard IEEE 802.3af/802.3at Power over Ethernet PSE  End-span  IEEE 802.3af Standard - Per port 48V~54V DC (depending on the power supply), max. 15.4 watts IEEE 802.3at Standard - Per port 50V~54V DC (depending on the power supply), max. 36 watts  Power Pin Assignment  PoE Power Budget  1/2(+), 3/6(-)  PoE Power Budget  1/2(+), 3/6(-)  Max. Number of Class 2 PDs  Max. Number of Class 3 PDs  Max. Number of Class 4 PDs  Standards Conformance  Regulatory  FCC Part 15 Class A CE	Switch Architecture	Store-and-Forward		
Throughput@64 bytes  MAC Address Table 8K entries  Shared Data Buffer 1Mbit  Flow Control IEEE 802.3x pause frame for full duplex Back pressure for half duplex  Jumbo Frame 9KB  Power over Ethernet  PoE Standard IEEE 802.3af/802.3at Power over Ethernet PSE  PoE Power Supply Type IEEE 802.3af Standard - Per port 48V~54V DC (depending on the power supply), max. 15.4 watts IEEE 802.3at Standard - Per port 50V~54V DC (depending on the power supply), max. 36 watts  Power Pin Assignment 1/2(+), 3/6(-)  PoE Power Budget 120 watts (depending on power input)  Max. Number of Class 2 PDs  Max. Number of Class 3 PDs  Max. Number of Class 4 PDs  Standards Conformance  Regulatory FCC Part 15 Class A CE	Switch Fabric	16Gbps/non-blocking		
Shared Data Buffer  Flow Control  IEEE 802.3x pause frame for full duplex Back pressure for half duplex  9KB  Power over Ethernet  PoE Standard  IEEE 802.3af/802.3at Power over Ethernet PSE  PoE Power Supply Type  IEEE 802.3af Standard - Per port 48V~54V DC (depending on the power supply), max. 15.4 watts IEEE 802.3at Standard - Per port 50V~54V DC (depending on the power supply), max. 36 watts  Power Pin Assignment  PoE Power Budget  1/2(+), 3/6(-)  PoE Power Budget  120 watts (depending on power input)  Max. Number of Class 2 PDs  Max. Number of Class 3 PDs  Max. Number of Class 4 PDs  Standards Conformance  Regulatory  FCC Part 15 Class A CE	Throughput@64	11.9Mpps @64 bytes		
Flow Control  IEEE 802.3x pause frame for full duplex Back pressure for half duplex  9KB  Power over Ethernet  PoE Standard  IEEE 802.3af/802.3at Power over Ethernet PSE  PoE Power Supply Type  IEEE 802.3af Standard - Per port 48V~54V DC (depending on the power supply), max. 15.4 watts IEEE 802.3at Standard - Per port 50V~54V DC (depending on the power supply), max. 36 watts  Power Pin Assignment  1/2(+), 3/6(-)  PoE Power Budget  120 watts (depending on power input)  Max. Number of Class 2 PDs  Max. Number of Class 3 PDs  Max. Number of Class 4 PDs  Standards Conformance  Regulatory  FCC Part 15 Class A CE	MAC Address Table	8K entries		
Back pressure for half duplex	Shared Data Buffer	1Mbit		
Power over Ethernet  PoE Standard  IEEE 802.3af/802.3at Power over Ethernet PSE  PoE Power Supply Type  IEEE 802.3af Standard - Per port 48V~54V DC (depending on the power supply), max. 15.4 watts IEEE 802.3at Standard - Per port 50V~54V DC (depending on the power supply), max. 36 watts  Power Pin Assignment  PoE Power Budget  1/2(+), 3/6(-)  PoE Power Budget  120 watts (depending on power input)  Max. Number of Class 2 PDs  Max. Number of Class 3 PDs  Max. Number of Class 4 PDs  Standards Conformance  Regulatory  FCC Part 15 Class 4 CE	Flow Control	·		
PoE Standard  PoE Power Supply Type  IEEE 802.3af/802.3at Power over Ethernet PSE  End-span  IEEE 802.3af Standard - Per port 48V~54V DC (depending on the power supply), max. 15.4 watts IEEE 802.3at Standard - Per port 50V~54V DC (depending on the power supply), max. 36 watts  Power Pin Assignment  PoE Power Budget  1/2(+), 3/6(-)  PoE Power Budget  120 watts (depending on power input)  Max. Number of Class 2 PDs  Max. Number of Class 3 PDs  Max. Number of Class 4 PDs  Standards Conformance  Regulatory  FCC Part 15 Class A CE	Jumbo Frame	9KB		
PoE Power Supply Type  IEEE 802.3af Standard - Per port 48V~54V DC (depending on the power supply), max. 15.4 watts IEEE 802.3at Standard - Per port 50V~54V DC (depending on the power supply), max. 36 watts  Power Pin Assignment  PoE Power Budget  1/2(+), 3/6(-)  PoE Power Budget  120 watts (depending on power input)  Max. Number of Class 2 PDs  Max. Number of Class 3 PDs  Max. Number of Class 4 PDs  Standards Conformance  Regulatory  FCC Part 15 Class 4 CE	Power over Ethernet			
Type  IEEE 802.3af Standard - Per port 48V~54V DC (depending on the power supply), max. 15.4 watts IEEE 802.3at Standard - Per port 50V~54V DC (depending on the power supply), max. 36 watts  Power Pin Assignment  PoE Power Budget  1/2(+), 3/6(-)  PoE Power Budget  120 watts (depending on power input)  Max. Number of Class 2 PDs  Max. Number of Class 3 PDs  Max. Number of Class 4 PDs  Standards Conformance  Regulatory  FCC Part 15 Class A CE	PoE Standard	IEEE 802.3af/802.3at Power over Ethernet PSE		
PoE Power Output  - Per port 48V~54V DC (depending on the power supply), max. 15.4 watts  IEEE 802.3at Standard - Per port 50V~54V DC (depending on the power supply), max. 36 watts  Power Pin Assignment  1/2(+), 3/6(-)  PoE Power Budget  120 watts (depending on power input)  Max. Number of Class 2 PDs  Max. Number of Class 3 PDs  Max. Number of Class 4 PDs  Standards Conformance  Regulatory  FCC Part 15 Class 4 CE		End-span		
Assignment  PoE Power Budget  120 watts (depending on power input)  Max. Number of Class 2 PDs  Max. Number of Class 3 PDs  4  Max. Number of Class 4 PDs  Standards Conformance  Regulatory  1/2(+), 3/6(-)  4  4  Standards On power input)  4  4  4  5  FCC Part 15 Class A CE	PoE Power Output	<ul> <li>Per port 48V~54V DC (depending on the power supply), max. 15.4 watts</li> <li>IEEE 802.3at Standard</li> <li>Per port 50V~54V DC (depending on the power</li> </ul>		
Max. Number of Class 2 PDs  Max. Number of Class 3 PDs  Max. Number of Class 4 PDs  Standards Conformance  Regulatory  FCC Part 15 Class A CE		1/2(+), 3/6(-)		
Class 2 PDs  Max. Number of Class 3 PDs  Max. Number of Class 4 PDs  4  Standards Conformance  Regulatory  FCC Part 15 Class A CE	PoE Power Budget	120 watts (depending on power input)		
Class 3 PDs  Max. Number of Class 4 PDs  Standards Conformance  Regulatory  FCC Part 15 Class A CE		4		
Class 4 PDs  Standards Conformance  Regulatory  FCC Part 15 Class A CF		4		
Regulatory FCC Part 15 Class A CF		4		
F(( Part 15 (lass Δ ( F	Standards Conforman	tandards Conformance		
·	,	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 10BASE-T IEEE 802.3u 100BASE-TX IEEE 802.3ab Gigabit 1000BASE-T IEEE 802.3x Flow Control and Back Pressure	
Environment		
Operating	Temperature: -40 ~ 75 degrees C Relative Humidity: 5 ~ 95% (non-condensing)	
Storage	Temperature: -40 ~ 85 degrees C Relative Humidity: 5 ~ 95% (non-condensing)	
Accessories		
Standard Accessories	■ QR Code Sheet x 1 ■ 3-pin Terminal Block Connector x 1 ■ Wall-mounted Kit x 1 ■ DIN-rail Kit x 1 ■ Magnet Kit x 1 ■ RJ45 Dust Cap x 8	

9 ⊪

# 2.4 Physical Dimensions (W x D x H): 148 x 25 x 134 mm

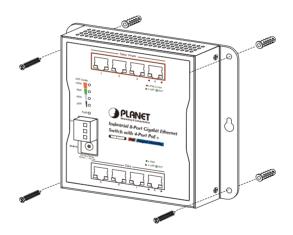


### 3. Installation

#### 3.1 Wall-mount Installation

To install the Wall-mounted PoE+ Switch on the wall, simply follow the following steps:

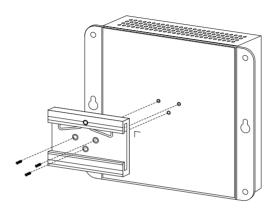
- **Step 1:** There are 4 holes with 8mm diameter on the wall; the distance between the 2 holes is 133mm and the line through them must be kept horizontal.
- **Step 2:** Install a conductor pipe inside the board hole and flush the edge of the conductor pipe with the wall surface.
- **Step 3:** Screw the bolts into the conductor pipe. The WGS-804HP is between bolts and conductor pipe, as shown below.



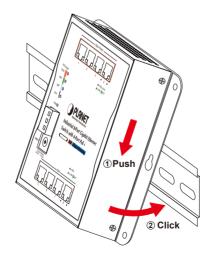
#### 3.2 DIN-rail Mounting Installation

The DIN-rail kit is included in the WGS-804HP package. When the wall-mount application for the WGS-804HP needs to be replaced with DIN-rail application, please refer to the following figures to screw the DIN-rail on the WGS-804HP. To hang up the WGS-804HP, follow the steps below:

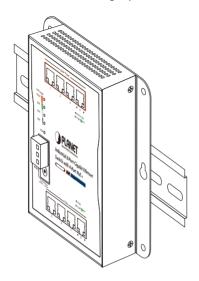
Step 1: Screw the DIN-rail on the WGS-804HP.



Step 2: Lightly press the bottom of DIN-rail into the track.

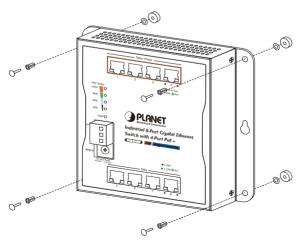


**Step 3:** Check whether the DIN-rail is tightly on the track.



## 3.3 Magnet Installation

To install the WGS-804HP on a magnetic surface, simply follow the following diagram:



13 ⊪

# 4. Customer Support

Thank you for purchasing PLANET products. You can browse our online FAQ resource and User's Manual on PLANET Web site first to check if it could solve your issue. If you need more support information, please contact PLANET switch support team.

PLANET online FAQs:

https://www.planet.com.tw/en/support/faq

Switch support team mail address: <a href="mailto:support@planet.com.tw">support@planet.com.tw</a>

Copyright © PLANET Technology Corp. 2023.

Contents are subject to revision without prior notice.

PLANET is a registered trademark of PLANET Technology Corp.

All other trademarks belong to their respective owners.