3onedata
Make network communication more reliable

IES6300 Series
Managed Industrial Ethernet Switch
Quick Installation Guide

3onedata Co., Ltd.

Address: 3/B, Zone 1, Baiwangxin High Technology Industrial Park, Xili, Nanshan District, Shenzhen

Website: www.3onedata.com

Tel: +86 075526702688

Fax: +86 075526703485

【Package Checklist】

Please check the integrity of package and accessories while first using the switch.

1. Industrial Ethernet switch
2. DIN-Rail mounting attachment
3. Certification
4. Warranty card

If any of these items are damaged or lost, please contact our company or dealers, we will solve it ASAP.

【Product Overview】

This series of product is Gigabit managed DIN-Rail industrial Ethernet switch. For convenience, This series of product adopts the following number on the left in this guide, please affirm the number of your product.

Model I. IES6300-8GT2GS2HS-2P48 (8 Gigabit copper ports + 2 Gigabit SFP + 2 2.5G SFP, 12~48VDC redundant power supply)

Model II. IES6300-8GP2GS2HS-2P24-120W (8 Gigabit PoE copper ports + 2 Gigabit SFP + 2 2.5G SFP, 24VDC redundant power supply, 120W PoE power consumption)

Model III. IES6300-8GP2GS2HS-2P48-240W (8 Gigabit PoE copper ports + 2 Gigabit SFP + 2 2.5G SFP, 48VDC redundant power supply, 240W PoE power consumption)

Model IV. IES6300-8GT2GS2HS-P220 (8 Gigabit copper ports + 2 Gigabit SFP + 2 2.5G SFP, 220VAC/DC AC power supply)

Model V. IES6300-8GT2HS-2P48 (8 Gigabit copper ports + 2 2.5G SFP, 12~48VDC redundant power supply)

Model VI. IES6300-8GP2HS-2P24-120W (8 Gigabit PoE copper ports + 2 Gigabit SFP + 2 2.5G SFP, 24VDC redundant power supply, 120W PoE power consumption)

Model VII. IES6300-8GP2HS-2P48-240W (8 Gigabit PoE copper ports + 2 2.5G SFP, 48VDC redundant power supply, 240W PoE power consumption)

Model VIII. IES6300-8GT2HS-P220 (8 Gigabit copper ports + 2 2.5G SFP, 220VAC/DC AC power supply)

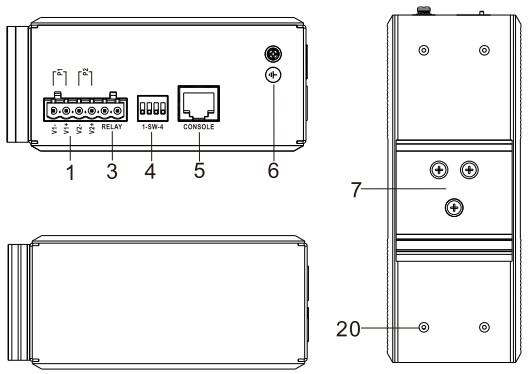
Model IX. IES6300-8GT2GS2HS-2DI2DO-2P48 (8 Gigabit copper ports +2 Gigabit SFP + 2 2.5G SFP + 2DI + 2DO, 12~48VDC redundant power supply)

Model X. IES6300-8GP2GS2HS-2DI2DO-2P24-120W (8 Gigabit PoE copper ports + 2 Gigabit SFP + 2 2.5G SFP + 2DI + 2DO, 24VDC redundant power supply, 120W PoE power consumption)

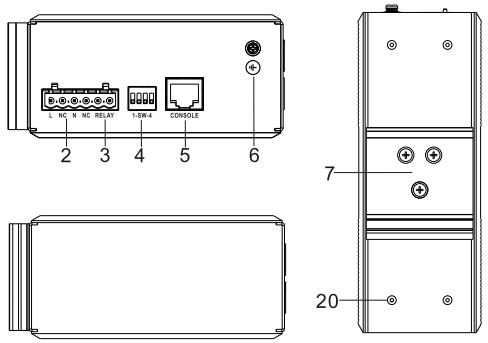
Model XI. IES6300-8GP2GS2HS-2DI2DO-2P48-240W (8 Gigabit PoE copper ports + 2 Gigabit SFP + 2 2.5G SFP + 2DI + 2DO, 48VDC redundant power supply, 240W PoE power consumption)

【Panel Design】

➢ **Top view, bottom view and rear view**

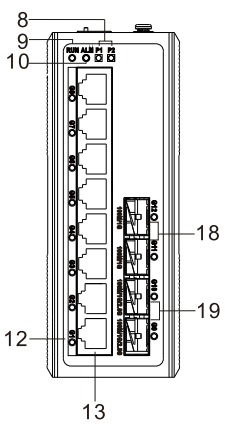


Model I-III, Model V-VII, Model IX-XI

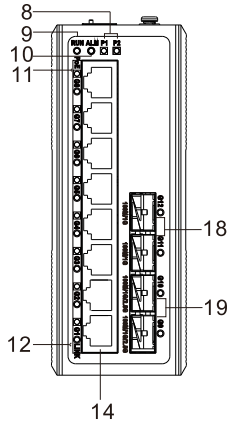


Model IV, Model VIII

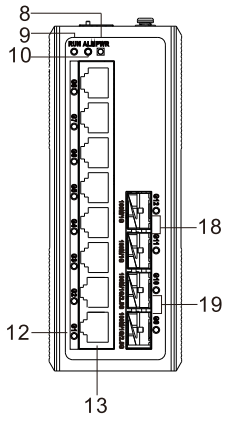
➢ **Front view**



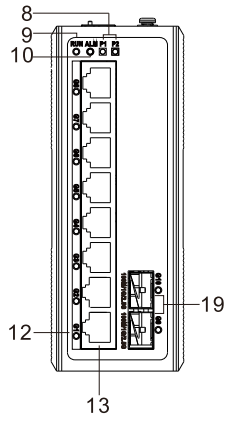
Model I



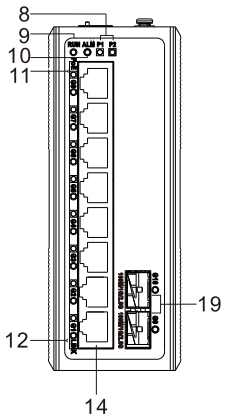
Model II, Model III



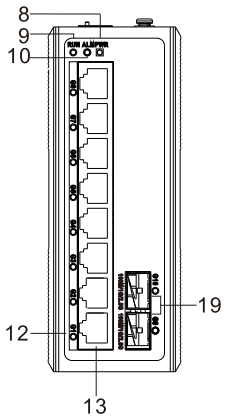
Model IV



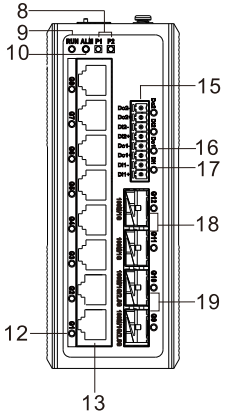
Model V



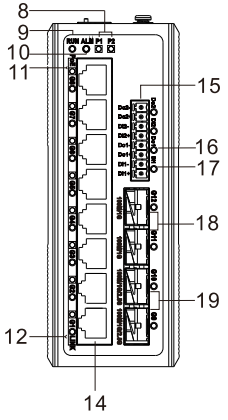
Model VI, Model VII



Model VIII



Model IX

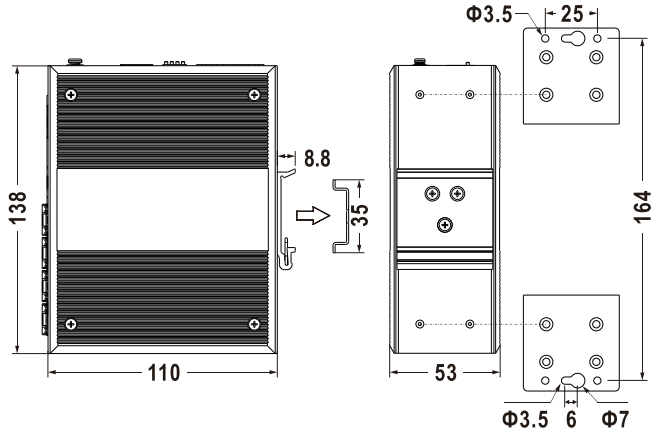


Model X, Model XI

1. Terminal blocks for Power Supply P1/P2 Input
2. Terminal blocks for Power Supply L/N Input
3. Terminal blocks for relay alarm output RELAY
4. DIP switch
5. Console port
6. Grounding screw
7. DIN-Rail mounting kit
8. Power indicator
9. Running indicator (RUN)
10. Alarm indicator (ALM)
11. PoE indicator (G1-G8)
12. Ethernet port indicator (G1-G12)
13. 10/100/1000Base-T(X) copper port (G1-G8)
14. 10/100/1000Base-T(X) Gigabit PoE copper port (G1-G8)
15. I/O input and output interfaces (DI1-DI2, DO1-DO2)
16. I/O output indicator (DO1-DO2)
17. I/O input indicator (DI1-DI2)
18. 100/1000Base-X SFP slot (G11-G12)
19. 100/1000/2.5GBase-X, SFP slot(G9-G10)
20. Wall-mounting location hole

【Mounting Dimension】

Unit: mm



Notice Before Mounting:

- Don't place or install the device in area near water or moist, keep the relative humidity of the device surrounding between 5%~95% without condensation.
- Before power on, first confirm the supported power supply specification to avoid over-voltage damaging the device.
- The device surface temperature is high after running; please don't directly contact to avoid scalding.

【DIN-Rail Mounting】

The product adopts 35mm standard DIN-Rail mounting which is suitable for most industrial scenes, mounting steps as follows:

Step 1 Check if the DIN-Rail mounting kit is installed firmly.

Step 2 Insert the bottom of DIN-Rail mounting kit (one side with spring support) into DIN-Rail, and then insert the top into DIN-Rail.

Tips:
Insert a little to the bottom, lift upward and then insert to the top.

Step 3 Check and confirm the product is firmly installed on DIN-Rail, then mounting ends.

【Disassembling DIN-Rail】

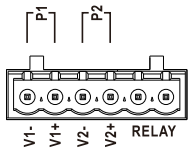
Step 1 Power off the device.

Step 2 After lifting the device upward slightly, first shift out the top of DIN-Rail mounting kit, and then shift out the bottom of DIN-Rail, disassembling ends.

Notice before power on:

- Power ON operation: First insert the power supply terminal block into the device power supply interface, then plug the power supply plug contact and power on.
- Power OFF operation: First, remove the power plug, then remove the wiring section of terminal block. Please pay attention to the above operation sequence.

【DC Power Supply Connection】



The DC device of the series provides 6-pin 5.08mm pitch power supply terminal blocks and power supply occupies the left 4 pins. It supports two independent DC power supply systems, P1 and P2. The series of device supports redundant

power supply, two power supply can work at the same time. The device will still run non-stop when one power supply fails. The pin definitions of power supply are shown in the left figure. This series supports 3 different power supply ranges. Please notice the corresponding power supply type of the device in case it damages the device.

- **12~48VDC redundant power supply**

The power supplies of Model I, Model V and Model IX support non-polarity connection, and the device can still work normally after reverse connection. The definitions of power pin are shown in the figure above, and the power input range is 12~48VDC.

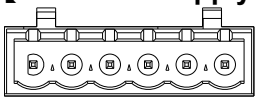
- **24VDC redundant power supply**

The power supplies of Model II ,Model VI and Model X support anti-reverse connection, which cannot power the device but won't damage it. The definitions of power pin are shown in the figure above, and the power input is 24VDC.

- **48VDC redundant power supply**

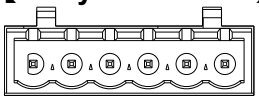
The power supplies of Model III, Model VII and Model XI support anti-reverse connection, which can cannot power the device but won't damage it. The definitions of power pin are shown in the figure above, and the power input is 48VDC.

【AC Power Supply Connection】



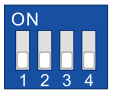
This AC device provides 6-pin 5.08mm pitch terminal blocks, power supply occupies the left 4 pins. The pin definitions of power supply are shown in the left figure.

【Relay Connection】



This device provides 6-pin 5.08mm pitch terminal blocks, relay occupies the right 2 pins. Relay terminals are a set of normally open contacts of the device alarm relay. They are open circuit in the state of normal non alarm, closed when any alarm information occurs. For example, they are closed when powered off, and send out alarm. The product supports 1 relay alarm information output that can output DC power supply alarm information or network abnormality alarm. It can be connected to alarm light or alarm buzzer or other switching value collecting devices, which can timely inform operators when the alarm occurs.

【DIP Switch Settings】

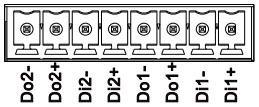


The series of devices provide 4-bits DIP switch for function setting, where "ON" is enable valid terminal.

The definitions of DIP switch are as follows:

No	Definition	Operation
1	Restore Factory Settings	Set the DIP switch to ON, the device will root automatically and restore to factory settings, then turn off the DIP switch.
2-4	Reserved	—

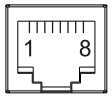
【I/O Port Connection】



Model IX, Model X and Model XI provide 8-pin 3.81mm pitch terminal blocks and 2 DI and 2 DO. This device can detect and send I/O input status to management software, operators can set the conditions of alarm status via management software. When the I/O input status meets the set alarm conditions, the I/O output alarm would be triggered. The pin definitions of I/ O port are shown as follows:

I/O port	PIN	Definition
DI digital signal input channel 1	DI1+, DI1-	I/O signal input
DI digital signal input channel 2	DI2+, DI2-	
DO digital signal output channel 1	DO1+, DO1-	I/O relay output
DO digital signal output channel 2	DO2+, DO2-	

【Console Port Connection】



The device provides 1 program debugging port based on RS-232 serial port which can conduct device CLI command management after connecting to PC. The interface adopts RJ45 port, the RJ45 pin definition as follows:

Pin No.	2	3	5
Definition	TXD	RXD	GND

【Checking LED Indicator】

The device provides LED indicators to monitor its operating status, which has simplified the overall troubleshooting process. The function of each LED is described in the table below:

LED	Indicate	Description
P1/P2/PWR	ON	Power supply is running normally
	OFF	Power supply is disconnected or running abnormally
ALM	ON	Power supply or port link has alarm
	OFF	Power supply and port link have no alarm
RUN	ON	Device is not started or abnormal
	Blinking	Blinking 1 time per second, system is running normally
	OFF	The device is powered off or the device is abnormal.
LINK (G1-G12)	ON	Ethernet port has established a valid network connection
	Blinking	Ethernet port is in an active network status
	OFF	Ethernet port has not established valid network connection
PoE (G1-G8)	ON	POE port is powering other PD devices normally
	OFF	POE is disabled or disconnected
DI(1-2)	ON	I/O has input information
	OFF	I/O has no input information
DO(1-2)	ON	I/O has output alarm information, and it's status is on.
	OFF	I/O has no output alarm information, and it's status is off.

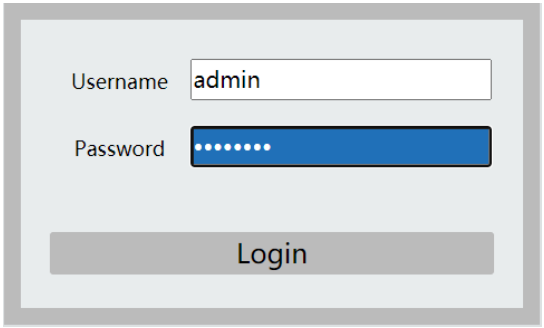
【Logging in to WEB Interface】

This series of devices supports WEB management and configuration, and computers can access devices through Ethernet interfaces. The way of logging in to device's configuration interface via IE browser is shown as below:

Step 1 Configure the IP addresses of computer and the device to the same network segment, and the network between them can be mutually accessed

Step 2 Enter device's IP address in the address bar of the computer browser: https://192.168.1.254

Step 3 Enter device's username and password in the login window as shown below.



Step 4 Click the "login" button. Change the initial password when logging into the device for the first time, after that, relog into the device to access the device's Web interface.

Note:

- The default IP address of the device is "192.168.1.254".
- The default user name and password of the device are "admin".
- When logging in to the device for the first time, the system will prompt to change the initial password of the default user; The length of the new password string must be greater than or equal to 8 and be composed of two or more kinds of uppercase letters, lowercase letters, numbers and special characters.
- If the user name or password is lost, the factory settings can be restored through management software of the device; or make a physical loopback between Port 1 and Port 2 within the first minute when the switch restarts.
- Please refer to user manual for specific configuration method of logging in to WEB interface and other configurations about network management function.

【Specification】

Panel	
Gigabit PoE copper port	10/100/1000Base-T(X), RJ45, Automatic Flow Control, Full/Half Duplex Mode, MDI/MDI-X Autotunning. PoE power supply pin: V+, V+, V-, V- correspond to pin 1, 2, 3, 6. The maximum output power of single port: 30W
Gigabit copper port	10/100/1000Base-T(X), RJ45, Automatic Flow Control, Full/Half Duplex Mode, MDI/MDI-X Autotunning
Gigabit SFP slot	100/1000Base-X self-adaption or forced mode, SFP slot
2.5G SFP slot	100/1000/2.5GBase-X self-adaption or forced mode, SFP slot
I/O port	Support 2 inputs and 2 outputs, 8-pin 3.81mm pitch terminal blocks, support dry contact input relay output
Console port	CLI command management port (RS-232), RJ45
Alarm interface	6-pin 5.08mm pitch terminal blocks, alarm occupies the right 2 pins, supports 1 relay alarm information output, and the current load capacity is 1A@30VDC or 0.3A@125VAC
Indicator	Running indicator, alarm indicator, power supply indicator, interface indicator, PoE indicator, I/O output indicator, I/O input indicator
Switch Property	
Backplane bandwidth	30G
Packet buffer size	4Mbit
MAC Address Table	8K
Power Supply	
Access terminal block	6-pin 5.08mm pitch terminal blocks, power supply occupies 4 pins
Power input	• Model I, V, IX: 12~48VDC, non-polarity, redundant backup, built-in 3A overcurrent protection • Model II, VI, X: 24VDC, anti-reverse connection, redundant backup, built-in 5A overcurrent protection • Model III, VII, XI: 48VDC, anti-reverse connection, redundant backup, built-in 5A overcurrent protection • Model IV, VIII: 220VAC/DC
Power Consumption	
No-load	≤5.76W@48VDC
Full-load	≤ 12W@48VDC (without PoE load) ≤ 132W@24VDC (with 120W PoE load) ≤ 252W@48VDC (with 240W PoE load)
Working Environment	
Working temperature	-40~75℃
Storage temperature	-40~85℃
Working humidity	5%～95% (no condensation)
Protection grade	IP40 (metal shell)

【Disposal of Waste Electrical and Electronic Equipment

(WEEE 2012/19/EU)】

(Applicable in the EU-member states)

The crossed-out wheeled bin symbol on equipment or its packaging indicates that the product, at the end of its service life, shall not be mixed with unsorted municipal waste but should be collected separately, in accordance with local laws and regulations. A proper separate collection of end-of-life equipment for the subsequent recycling, treatment and environmentally compatible disposal, will help prevent potential damage to the environment and human health, facilitating the reuse, recycling and/or recovery of its component materials.

Private users should contact their vendor or municipal waste management service and ask for disposal information.

Professional users should contact theirs suppliers and check the terms of their selling agreement. This product must not be disposed with other commercial waste.

Users' cooperation in the correct disposal of this product will contribute to save valuable resources and protect the environment.