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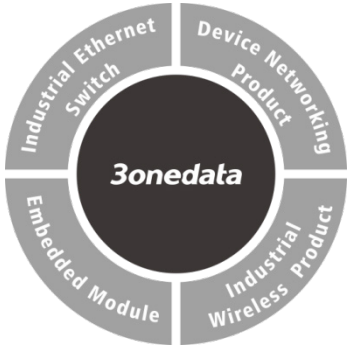
IES6300PRO Series Layer 2 Managed Industrial Ethernet Switch Quick Installation Guide



3onedata Co., Ltd.

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

Website: www.3onedata.com

Tel: +86 0755-26702688

Fax: +86 0755-26703485

【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. IES6300PRO-8GT2GS2HS-2Di2Do-2LV (8 Gigabit copper ports + 2 Gigabit SFP slots + 2 2.5G SFP slots + 2 DI + 2 DO, 24/48VDC redundant power supply)

Model II. IES6300PRO-8GP2GS2HS-2Di2Do-2LV (8 Gigabit PoE + 2 Gigabit SFP slots + 2 2.5G SFP slots + 2 DI + 2 DO, 48VDC redundant power supply)

Model III. IES6300PRO-8GT2GS2HS-2Di2Do-HV (8 Gigabit copper ports + 2 Gigabit SFP slots + 2 2.5G SFP slots + 2 DI + 2 DO,110/220VAC power supply)

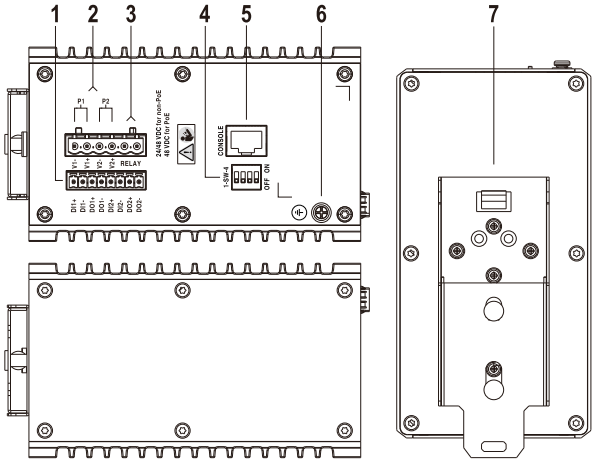
Model IV. IES6300PRO-16GT2GS2HS-2Di2Do-2LV (16 Gigabit copper ports + 2 Gigabit SFP slots + 2 2.5G SFP slots + 2 DI + 2 DO, 24/48VDC redundant power supply)

Model V. IES6300PRO-16GP2GS2HS-2Di2Do-2LV (16 Gigabit PoE + 2 Gigabit SFP slots + 2 2.5G SFP slots + 2 DI + 2 DO, 48VDC redundant power supply)

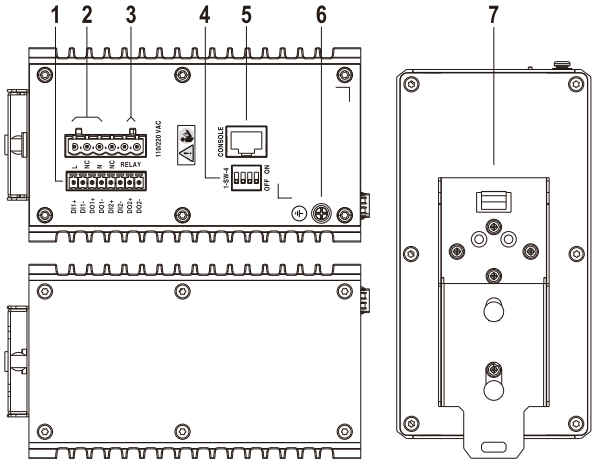
Model VI. IES6300PRO-16GT2GS2HS-2Di2Do-HV (16 Gigabit copper ports + 2 Gigabit SFP slots + 2 2.5G SFP slots + 2 DI + 2 DO, 110/220VAC power supply)

【Panel Design】

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

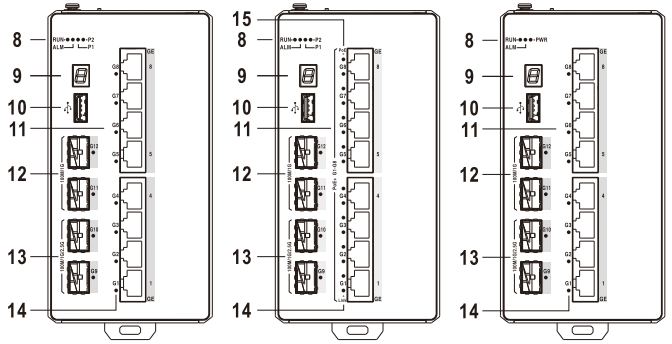


DC device: Model I, Model II, Model IV, Model V

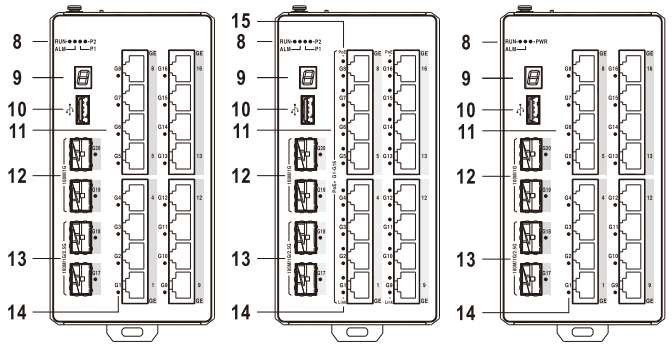


AC device: Model III, Model VI

➢ **Front view**



Model I Model II Model III

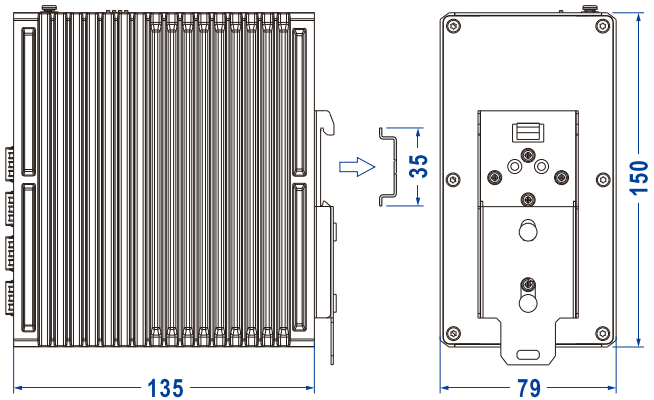


Model IV Model V Model VI

1. DI and DO terminals (DI1-DI2, DO1-DO2)
2. Power supply input terminal block
   - DC device power input terminal (P1-P2)
   - AC device power input terminals (L, N)
3. Terminal blocks for relay alarm output (RELAY)
4. DIP switch (1-SW-4)
5. CONSOLE port
6. Grounding screw
7. DIN-Rail mounting kit
8. System indicators, from left to right in turn they are:
   - Running Indicator(RUN)
   - Alarm Indicator(ALM)
   - Power Supply Indicator (DC: P1-P2; AC: PWR)
9. LED digital tube
10. USB interface
11. 10/100/1000Base-T(X) Gigabit Ethernet RJ45:
    - Model I, Model III: Gigabit copper ports (G1-G8)
    - Model II: Gigabit copper ports (G1-G8)
    - Model IV, Model VI: Gigabit copper ports (G1-G16)
    - Model V: Gigabit PoE copper ports (G1-G16)
12. 100/1000Base-X SFP slot (G11-G12/G19-G20)
13. 100/1000/2.5GBase-X SFP slot (G9-G10 / G17-G18)
14. Ethernet port indicator (G1-G12 / G1-G20)
15. PoE indicator (G1-G8 / G1-G16)

【Mounting Dimension】

Unit: mm

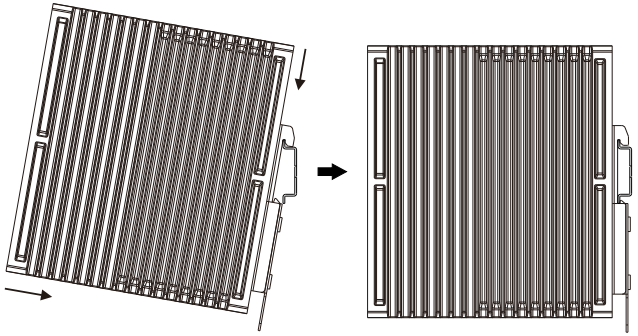


Notice Before Mounting:

- 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 Clip the upper part of the DIN-Rail mounting kit, i.e. the fixed side, into the DIN rail.

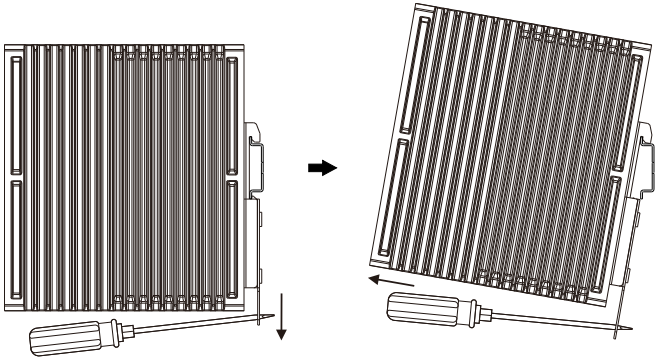
Step 3 Press the lower side of the device and insert the lower part of DIN-Rail mounting kit (the side with spring support) into DIN-Rail.

Tips:

The DIN-Rail spring support is a metal sheet that can move up and down, and there will be a sound after it is clamped in.

Step 4 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 Use a slot type screwdriver or other tools to move the DIN rail spring support downward; At the same time, move the lower side of the device outward and move out the lower part of the DIN rail mounting kit.

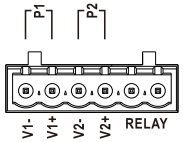
Step 3 Lift the device upward slightly, move out the upper part of DIN-Rail mounting kit. Disassembling ends.

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.

【Power Supply Connection】

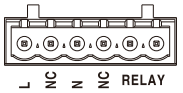
➢ **DC device: Model I, Model II, Model IV, Model V**



Model I, Model II, Model IV and Model V provides 6-pin 5.08mm pitch power supply terminal blocks and power supply occupies the left 4 pins. It provides two independent DC power supply systems, P1 and P2. The power input supports 1 power supply alone or 2 power supply at the same time; When two power supply input at the same time, it supports redundant backup of power supply. If one power supply fails, the device can still work normally without interruption. Power supply supports anti-reverse connection, which cannot power the device but won't damage it when it's reversely connected. The definitions of power pin are shown in the left figure, and the power supply input is as follows:

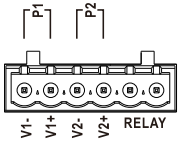
- Model I, IV: 24/48VDC (12~55VDC).
- Model II, V: 48VDC (PoE: 44~55VDC).

➢ **AC device: Model III, Model VI**



Model III and VI provide 6-pin 5.08mm pitch terminal blocks (the power supply occupies the left 4 pins) and 1 AC power supply system. The definitions of power pin are shown in the left figure, and the power input range is 110/220VAC (85~256VAC/DC).

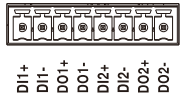
【Relay Connection】



This series 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 relay supports the output of DC power supply alarm 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.

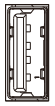
【I/O Port Connection】

This series device provides 8-pin 3.81mm pitch terminal blocks and 2 DI and 2 DO. This device can detect I/O input status, and operators can set the conditions of alarm status. 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:



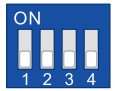
PIN	Definition
DI1+, DI1-	DI digital signal input channel 1
DI2+, DI2-	DI digital signal input channel 2
DO1+, DO1-	DO digital signal output channel 1
DO2+, DO2-	DO digital signal output channel 2

【USB Interface】



This series of devices provides a USB2.0 Type-A(Female) interface. The USB interface can be connected to a USB flash drive to download logs and configuration files, or upload configuration files. For specific operations, please refer to the appendix of the user manual.

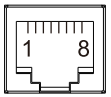
【DIP Switch Settings】



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:

DIP	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	—

【Console Port Connection】



The series of 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

【LED Digital Tube】

This series of device provides a 1 7-segment LED digital tube to display the running status of the device, which is convenient for maintenance and understanding of the working status of the products. The corresponding status is shown in the following table.

LED digital tube status	Note
	When the digital tube displays the character "b", it means that the switch is in the power-on self-test state.
	When the digital tube displays the character "_", it means that the switch starts to load the applications.
	When the digital tube displays the numbers "9" to "0" in turn, it means that all the applications of the switch are successfully loaded.
	When the digital tube displays the character "c", it means that the switch is in normal working state.
	When the digital tube displays characters "-","u", "o", "∀"and "8", it indicates the percentage of PoE power output by the switch to the total PoE power. The corresponding relationship is as follows: • **-**：0~20% • **u**：21%~40% • **o**：41%~60% • ∀：61%~80% • **8**：81%~100%
	When the digital tube flashes and displays the character "t",

LED digital tube status	Note
	it indicates that the switch is in over-temperature alarm.
A	When the digital tube flashes and displays the character "A", it means that the switch is in relay alarm state.
E-01	When the digital tube alternately displays the characters "E", "-","X" and "X", it means that the corresponding port XX of the switch receives data abnormally. For example, "01" means port 1.
F-01	When the digital tube alternately displays the characters "F", "-","X" and "X", it means that the corresponding port XX of the switch sends data abnormally, for example, "01" means port 1.
U	When the digital tube displays the character "U", it means that the USB flash drive is in place; When it flashes, it means that the USB flash drive is working, and stops flashing after the work is finished.

Note:

If it is detected that the number of sending or receiving errors of a port does not exceed 20 within 1min, the LED digital tube will not display the abnormal sending and receiving status information of the port.

【Checking LED Indicator】

The series of devices provide 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:

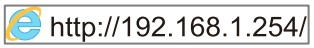
LED	Indicate	Description
P1-P2 / PWR	ON	Power supply is running normally
	OFF	Power supply is disconnected or running abnormally
RUN	ON	Device is not started or abnormal
	Blinking	Blinking 1 time per second, system is running normally
	OFF	The device is powered off or the device is abnormal.
ALM	ON	Power supply or port link has alarm
	OFF	Power supply, port link without alarm
LINK (G1-G12/G20)	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/G16)	ON	POE port is powering other PD devices normally
	OFF	POE is disabled or disconnected

【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.



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'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 the DIP switch or 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 copper port	10/100/1000Base-T(X) self-adaption, RJ45, full/half duplex, MDI/MDI-X self-adaption
Gigabit PoE port	10/100/1000Base-T(X) self-adaption, RJ45, Full/Half Duplex, MDI/ MDI-X self-adaption. The single port supports 15.4W PoE output power of IEEE802.3af standard and 30W PoE+ output power of IEEE802.3at standard, power supply pin: 1/2-, 3/6+
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
LED digital tube	1 seven-segment LED digital tube, which shows the running status of the device
USB interface	USB2.0 Type-A(Female), download logs and configuration files, or upload configuration files
I/O port	Support 2 inputs and 2 outputs, 8-pin 3.81mm pitch terminal blocks, support dry contact input and relay-type output
Console port	CLI command management port (RS-232), RJ45
Alarm interface	6-pin 5.08mm pitch terminal blocks, the alarm occupies 2 pins, support 1 relay alarm information output, the current load capacity is 1A@30VDC or 0 3A@125VAC
Indicator	Running Indicator, Alarm Indicator, Power Supply Indicator, Interface Indicator, PoE Indicator
Switch Property	
Backplane bandwidth	58G
Packet buffer size	4Mbit
MAC Address Table	8K
Power Supply	
Model I, Model IV	24~48VDC (12~55VDC), support anti-reverse connection
Model II, Model V	48VDC (44~55VDC), support anti-reverse connection
Model III, Model VI	110/220VAC（85~256VAC/DC）
Access terminal block	6-pin 5.08mm pitch terminal blocks (power supply occupies 4 pins)
Power Consumption	
Full-load	＜240W (with PD 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 the 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 their suppliers and check the terms of their selling agreement.

This product must not be disposed of with other commercial waste.

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