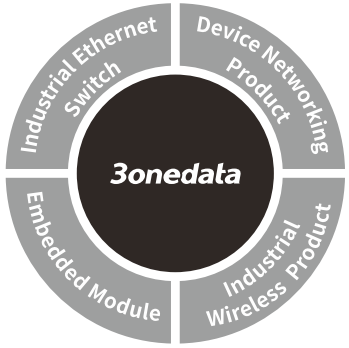
3onedata
Make network communication more reliable

IES5100 Series
Layer 2 Managed Industrial Ethernet Switch
Quick Installation Guide



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【Package Checklist】

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

1 Switch ×1
2. Mounting lug x2
3. AC power line x2 (AC product only)
4. Foot pad x4
5. Warranty card
6. Certificate

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

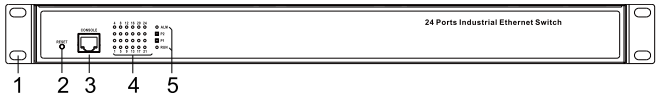
【Product Overview】

This series products are rack-mounted layer 2 managed industrial Ethernet switches. For convenience, the products of this series adopt the following number on the left in this guide, please confirm the number of your product:

Model I. IES5100-24T-2LV (24 100M copper ports + 2 18~72VDC redundant power supply inputs).
Model II. IES5100-24T-2HV(24 100M copper ports + 2 85~264VAC/DC redundant power supply inputs).
Model III. IES5100-22T2F-2LV (22 100M copper ports + 2 100M fiber ports + 2 18~72VDC redundant power supply inputs).
Model IV. IES5100-22T2F-2HV (22 100M copper ports + 2 100M fiber ports + 2 85~264VAC/DC redundant power supply inputs).
Model V. IES5100-20T4F-2LV (20 100M copper ports + 4 100M fiber ports + 2 18~72VDC redundant power supply inputs).
Model VI. IES5100-20T4F-2HV (20 100M copper ports + 4 100M fiber ports + 2 85~264VAC/DC redundant power supply inputs).
Model VII. IES5100-24F-2LV (24 100M fiber ports + 2 18~72VDC redundant power supply inputs).
Model VIII. IES5100-24F-2HV (24 100M fiber ports + 2 85~264VAC/DC redundant power supply inputs).

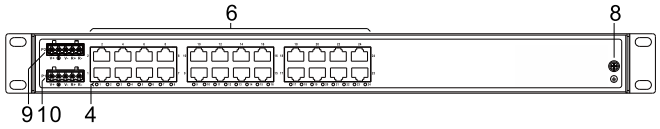
【Panel Design】

➢ **Front view**

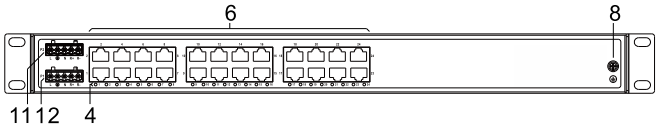


Model I-Model VIII

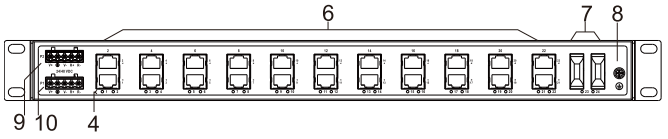
➢ **Rear view**



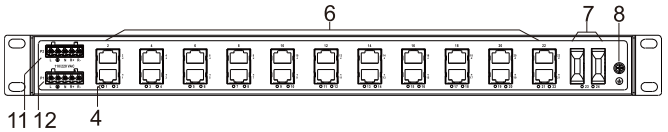
Model I



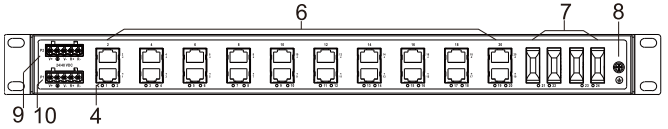
Model II



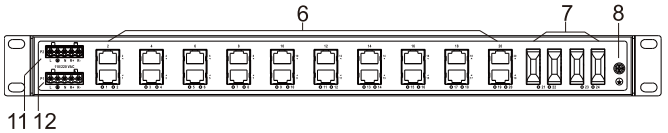
Model III



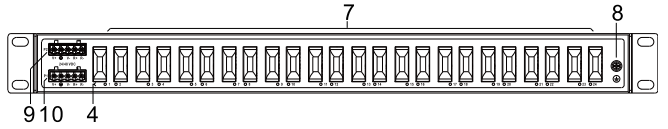
Model IV



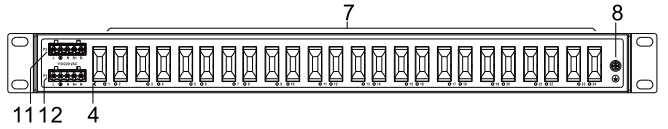
Model V



Model VI

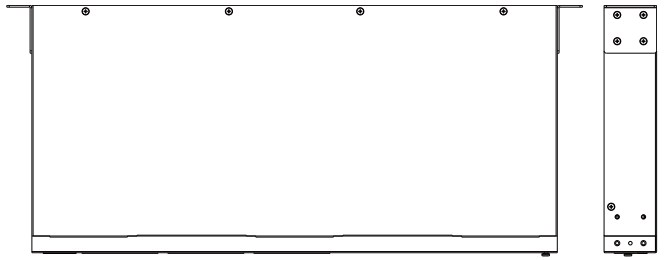


Model VII

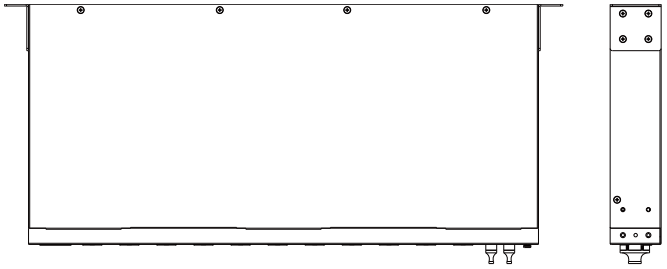


Model VIII

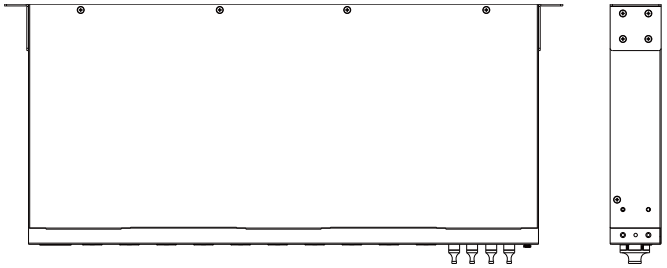
➢ **Top view and side view**



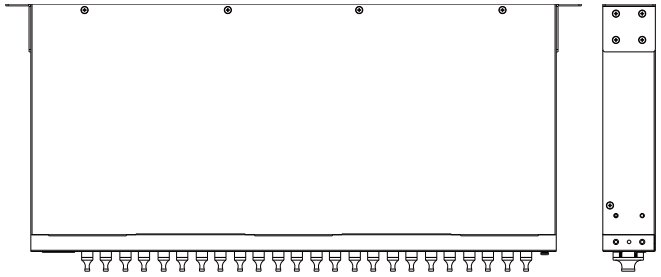
Model I, II



Model III, IV

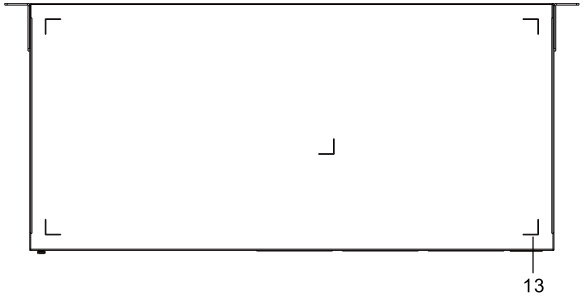


Model V, VI

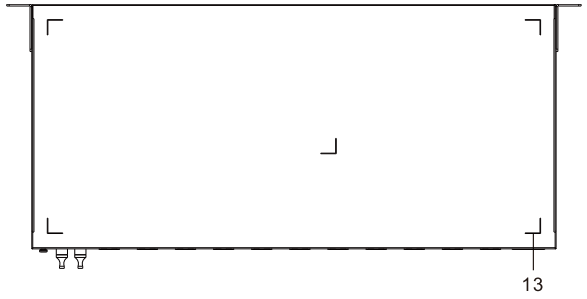


Model VII, VIII

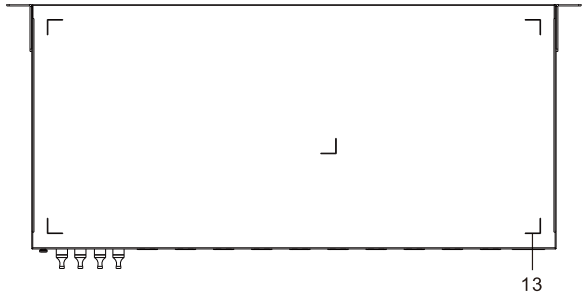
➢ **Bottom view**



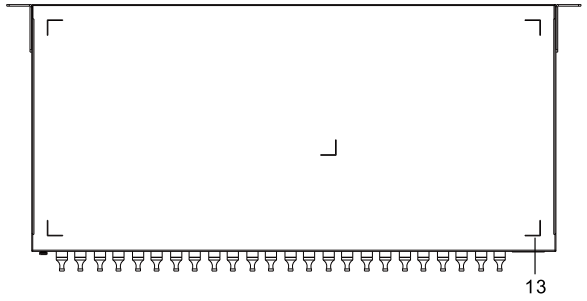
Model I, II



Model III, IV



Model V, VI



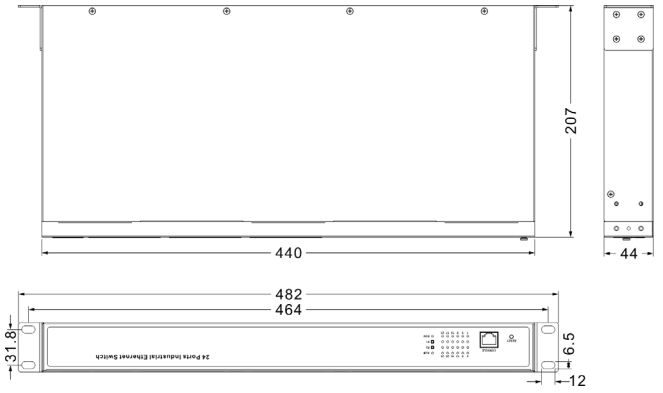
Model VII, VIII

1. Lugs
2. RESET button
3. CONSOLE port
4. Interface indicator (1-24)
5. System indicators, from top to bottom in turn they are:
   - Alarm indicator (ALM)
   - Power supply indicator (P2-P1)
   - Running indicator (RUN)
6. 100M copper port
   - Model I, II 1 (1-24)
   - Model III, IV (1-22)
   - Model V, VI (1-20)
7. 100M fiber port
   - Model III, IV (23-24)
   - Model V, VI (21-24)
   - Model VII, VIII (1-24)
8. Grounding screw (M4)
9. Terminal blocks for DC power P2 (V+, V-) and relay output (R+, R-)
10. Terminal blocks for DC power P1 (V+, V-) and relay output (R+, R-)
11. Terminal blocks for AC power P2 (L, N) and relay output (R+, R-)
12. Terminal blocks for AC power P1 (L, N) and relay output (R+, R-)
13. Foot pad (1x4)

【Mounting Dimension】

Note:

The external dimensions of this series of products are the same, unit: mm.



Notice Before Mounting:

- Don't place or install the device in area near water or moisture, keep the relative humidity of the device surrounding between 5%~95% without condensation.
- Before powering on the device, check the power

specifications supported by the device to prevent device damage due to overvoltage.

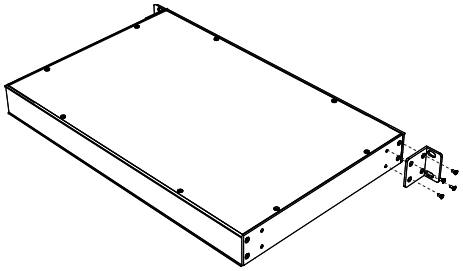
- The device surface temperature is high after running; please don't directly contact to avoid scalding.

【Install Rack-Mounted Device】

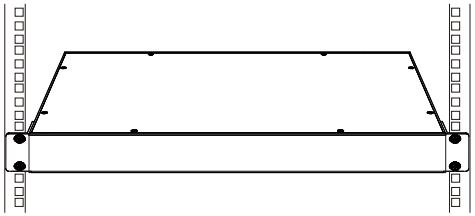
This product adopts 1U rack-mounting, mounting steps as below:

Step 1 Select the device mounting position and ensure enough mounting size is reserved.

Step 2 Adopt 4 bolts to install the mounting lugs in the device position as figure below.



Step 3 Place the device in the rack; adopt 4 bolts to fix two sides mounting lugs in the rack.



Step 4 Check and confirm the product is mounted firmly on the rack, then mounting ends.

【Disassembling Device】

Step 1 Power off the device.

Step 2 Adopt screw driver to loosen the 4 bolts fixed on the mounting lugs in the rack.

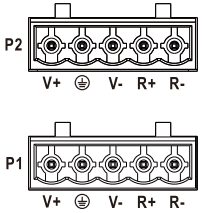
Step 3 Shift the device away from the rack, then disassembling ends.

Notice Before Powering on:

- Power ON operation: First insert the power supply terminal block into the device power supply interface, and then plug the power supply plug and power on.
- Power OFF operation: First, remove the power plug, and then remove the wiring section of terminal block. Please pay attention to the above operation sequence.
- Please be aware of the power input range supported by the device before powering on. Use the recommended voltage of the device to avoid device damage.

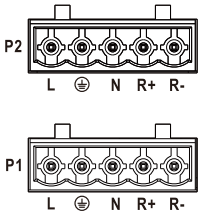
【Power Supply Connection】

➢ **DC device power supply**



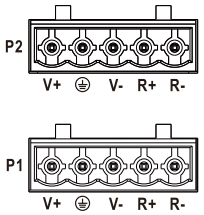
Model I, III, V, and VII provide 2 5-pin 5.08mm pitch terminal blocks, the power supply occupies the left 3 pins and support P1 and P2 DC redundant power inputs. The power input supports 1 single power supply input or 2 power supply inputs at the same time; When two power supply input at the same time, it supports redundant backup of power supply. If one power supply fails, the device can still work normally without interruption. The power supply supports non-polarity connection, and the device can still work normally after reverse connection. The definitions of power pin are shown in the left figure, and the power input range is 24VDC/48VDC (18~72VDC).

➢ **AC device power supply**



Model II, IV, VI and VIII provide 2 5-pin 5.08mm pitch terminal blocks, the power supply occupies the left 3 pins and support P1 and P2 AC redundant power inputs. The power input supports 1 single power supply input or 2 power supply inputs 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. The definitions of power pin are shown in the left figure, and the power input range is 110VAC/DC or 220VAC/DC, and the power input range is 85-264VAC/DC.

【Relay Connection】



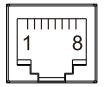
Provide 2 5-pin 5.08mm pitch terminal block, the relay occupies the right 2 pins, support 2 relay alarm outputs. The relay supports the output of DC power supply alarm or network abnormality alarm. It can be connected to alarm light or alarm buzzer or other switching value collecting devices, which can timely inform operators when the alarm occurs. The default relay status is shown in the figure below.

Device Status	Relay Contacts	Alarm
Not powered on or powered off,	Closed	Yes
Powered on, but not working properly	Closed	Yes
Powered on, and working properly without triggering any alarm	Disconnected	None
Powered on, and working properly, but it triggered alarms	Closed	Yes

【Reset Button Setting】

RESET ○ Provide 1 RESET button that can be used to reboot the device and restore factory defaults. Press the RESET button and release it immediately, and the device will restart automatically; Press and hold the RESET button for 5s and release it, and the device will reboot and automatically restore the factory defaults.

【Console Port Connection】



Provide 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

Pin Definition	TXD	RXD	GND

【Checking LED Indicator】

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	ON	Power P1/2 is running normally
	OFF	Power P1/2 is disconnected or running abnormally
ALM	ON	Power supply link has alarm
	OFF	Power supply link has no alarm
RUN	ON	The device is running abnormally
	Blinking	Blinking 1 time per second, system is running normally
	OFF	The device is powered off or the device is abnormal.
Link/Act (1-24)	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

【Logging in to WEB Interface】

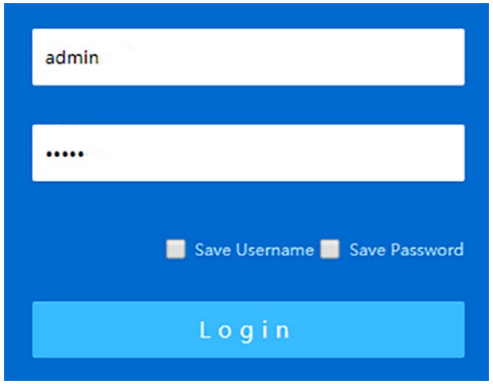
Support WEB management and configuration. Computer can access the device via Ethernet interface. The way of logging in to device's configuration interface via IE browser is shown as below:

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.

http://192.168.1.254

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



Step 4 Click "Login" button to login to the WEB interface of the device.

Note:

- The default IP address of the device is "192.168.1.254".
- The default user name and password of the device are "admin".
- If the user name or password is lost, user can restore it to factory settings via RESET button or management software; all modified configurations will be cleared after restoring to factory settings, so please backup configuration file in advance.
- Please refer to user manual for specific configuration method of logging in to WEB interface and other configurations about network management function.

【Specification】

Panel	
100M copper port	10/100Base-T(X) self-adaption, RJ45, Automatic Flow Control, Full/Half Duplex Mode Self-Adaption, MDI/MDI-X Autotunning
100M fiber port	100Base-FX, SC connector
Relay	Support 2 relay alarm outputs, adopt 2 5-pin 5.08mm pitch terminal blocks, the relay occupies the right 2 pins, the current load capability is 1A@30VDC or 0.3A@125VAC
CONSOLE	CLI command line management port (RS-232), RJ45
Indicator	Power indicator, running indicator, alarm indicator, interface indicator
Switch Property	
Backplane bandwidth	12.8Gbps
Cache size	4Mbit
MAC address table	16K
Power Supply	
Model I, III, V, VII	24VDC/48VDC (18~72VDC), dual power supply redundancy, support non-polarity
Model II, IV, VI, VIII	110VAC/DC, 220VAC/DC (85~264VAC/DC), dual power supply redundancy
Connection mode	2 5-pin 5.08mm pitch terminal blocks (power supply occupies the left 3 pins)
Power Consumption	
Model I	No-load: 4.5W@48VDC Full-load: 10.8W@48VDC
Model II	No-load: 7.3W@220VAC Full-load: 11.7W@220VAC
Model III	No-load: 5.3W@48VDC Full-load: 7.1W@48VDC
Model IV	No-load: 8.4W@220VAC Full-load: 11.9W@220VAC
Model V	No-load: 6.6W@48VDC Full-load: 8.6W@48VDC
Model VI	No-load: 10.0W@220VAC Full-load: 12.2W@220VAC

Model VII	No-load: 28.4W@48VDC Full-load: 29.7W@48VDC
Model VIII	No-load: 20.7W@220VAC Full-load: 22W@220VAC
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.