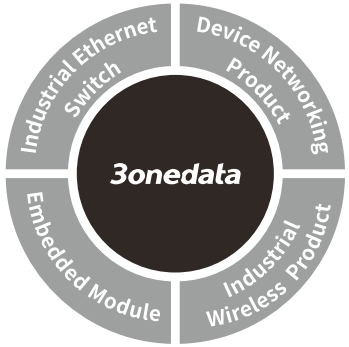
3onedata
Make network communication more reliable

IES7120 Series
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. Industrial Ethernet switch
2. DIN-Rail mounting attachment
3. Power line (only for AC device)
4. Certification
5. 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 is a 100M/Gigabit managed DIN-Rail industrial Ethernet switch. 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. IES7120-12T4F4GS-2LV (12 100M copper ports + 4 100M fiber ports + 4 Gigabit SFP slots, 2 12/24/48VDC (9~60VDC) redundant power supply inputs)

Model II. IES7120-12T4F4GS-HV (12 100M copper ports + 4 100M fiber ports + 4 Gigabit SFP slots, 1 100/220VAC/DC power supply input)

Model III. IES7120-14T2F4GS-2LV (14 100M copper ports + 2 100M fiber ports + 4 Gigabit SFP slots, 2 12/24/48VDC (9~60VDC) redundant power supply inputs)

Model IV. IES7120-14T2F4GS-HV (14 100M copper ports + 2 100M fiber ports + 4 Gigabit SFP slots, 1 100/220VAC/DC power supply input)

Model V. IES7120-16T4GS-2LV (16 100M copper ports + 4 Gigabit SFP slots, 2 12/24/48VDC (9~60VDC) redundant power supply inputs)

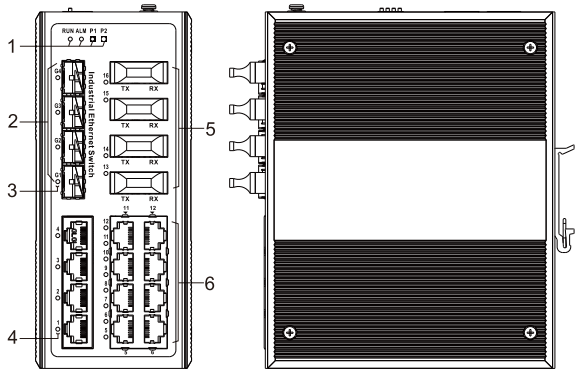
Model VI. IES7120-16T4GS-HV (16 100M copper ports + 4 Gigabit SFP slots, 1 100/220VAC/DC power supply input)

Model VII. IES7120-20T4GS-2LV (20 100M copper ports + 4 Gigabit SFP slots, 2 12/24/48VDC (9~60VDC) redundant power supply inputs)

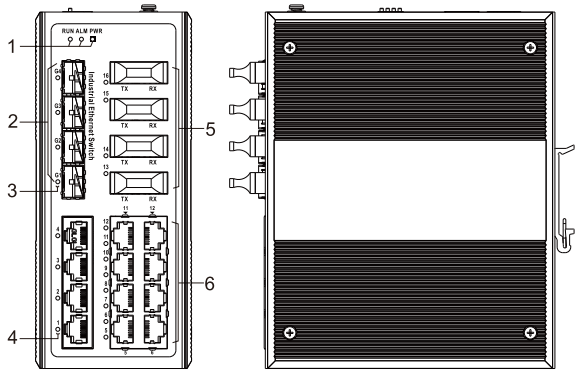
Model VIII. IES7120-20T4GS-HV (20 100M copper ports + 4 Gigabit SFP slots, 1 100/220VAC/DC power supply input)

【Panel Design】

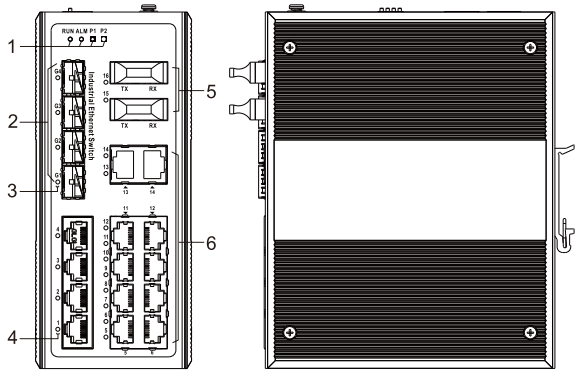
- **Front view and right view**



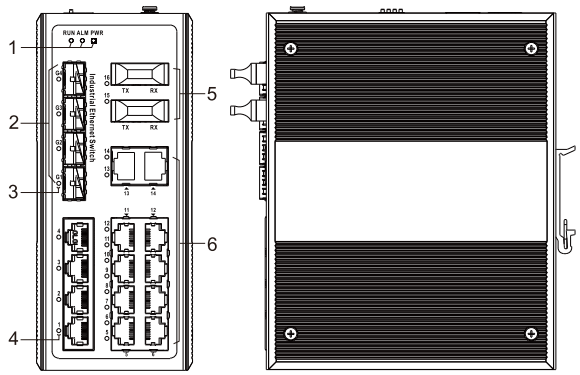
Model I



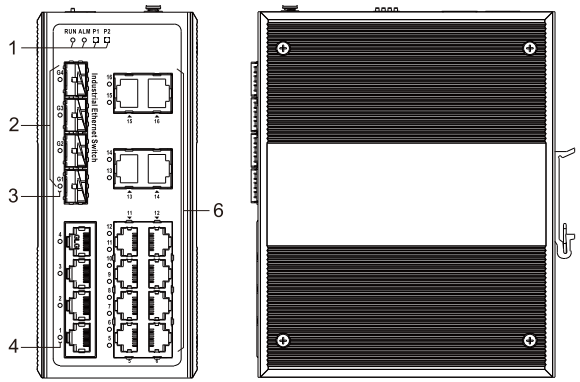
Model II



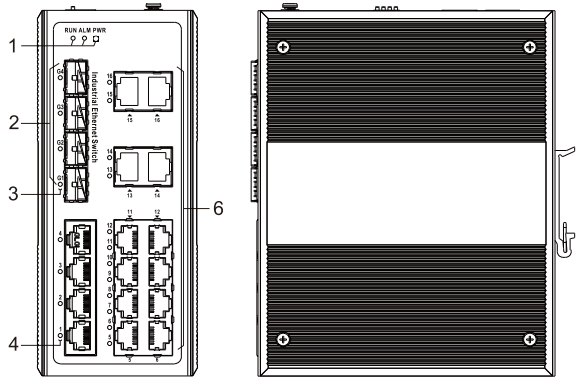
Model III



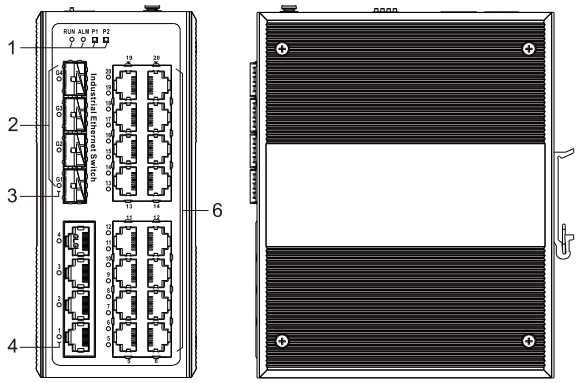
Model IV



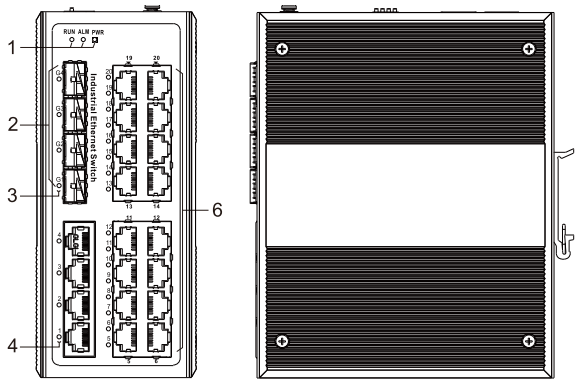
Model V



Model VI

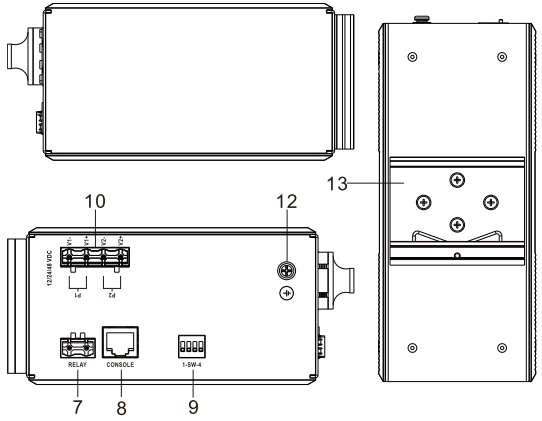


Model VII

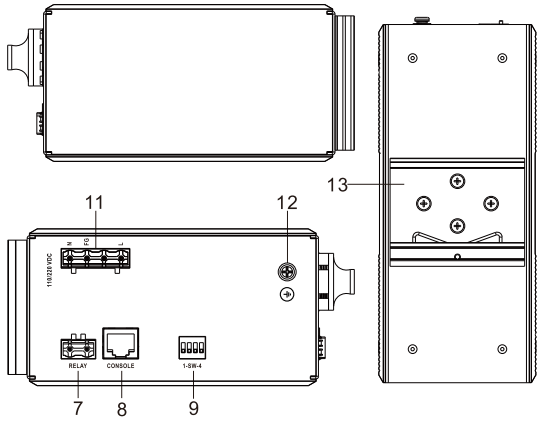


Model VIII

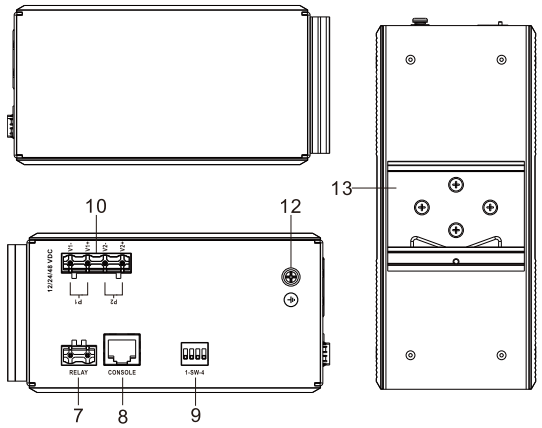
➢ **Bottom view, top view and rear view**



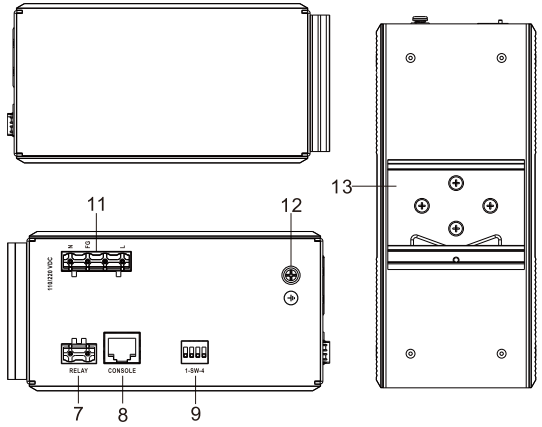
Model I, III



Model II, IV



Model V, VII



Model VI, VIII

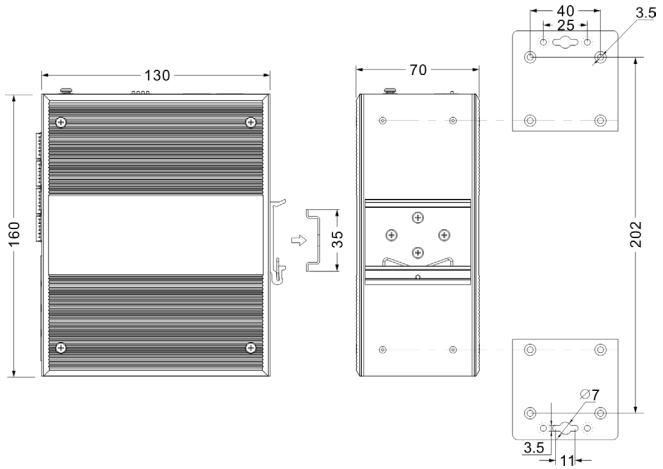
1. System indicators, from left to right in turn they are:
   - Running indicator (RUN)
   - Alarm indicator (ALM)
   - Power indicator (P1-P2/PWR)
2. 1000Base-X Gigabit SFP slot (G1-G4)
3. Gigabit Ethernet interface indicator (G1-G4)
4. 100M Ethernet interface indicator (1-16/20)
5. 100Base-X 100M Ethernet fiber port (13/15-16)
6. 10/100Base-TX 100M Ethernet copper port (1-12/14/16/20)
7. Terminal blocks for relay alarm output (RELAY)
8. Console port
9. DIP switch
10. Terminal blocks for DC power input (P1-P2)
11. AC power input terminal block
12. Grounding screw (M4)
13. DIN-Rail mounting kit

【Mounting Dimension】

Unit: mm

Notes:

- The wall-mounting panel at the right side of the figure below is an optional attachment, not standard; DIN-Rail kit is standard.
- All products in this series have the same model size.

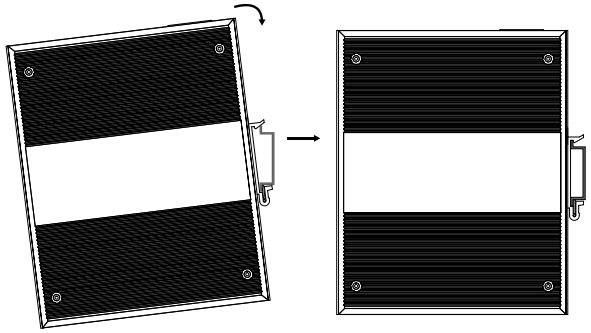


Notice Before Mounting:

- 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.

【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.

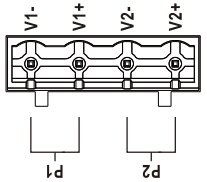
Step 2 After lifting the device upward slightly, first shift out the top of DIN-Rail mounting kit, and then shift out the bottom of DIN-Rail, disassembling ends.

Notice Before 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, then remove the wiring section of terminal block. Please pay attention to the above operation sequence.

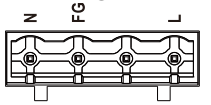
【Power Supply Connection】

➢ **DC dual power supply**



Model I, III, V, VII provide 4-pin 7.62mm pitch terminal blocks, support redundant power input, providing two power inputs, P1 and P2. You can use one or connect two independent external DC power supply systems. When connecting two power supplies to the device, it could ensure the continuous and normal operation of the device when one of the power systems fails. Power supply supports anti-reverse connection, which protect the device from damage but the device cannot be powered on. The rated working voltage is 12/24/48VDC, and the power supply range is 9 ~ 60VDC. The pin definitions are shown in the figure.

➢ **Single AC power supply**



Model II, IV, VI, VIII support single AC power supply, providing 4-pin 7.62mm pitch input terminal blocks with an input voltage of 110/220VAC/DC. The pin definitions are shown in the figure.

【Relay Connection】



This series provides 2-pin 7.62mm pitch terminal blocks, support 1 relay alarm output. 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

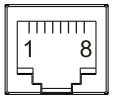
【DIP Switch Settings】



The series provides 4-bit DIP switch for function settings, where "ON" is enable valid terminal. The definitions of DIP switch are as follows:

No.	Definition	Operation
1	Restore Factory Settings	Set the code to ON, then set it back.
2	Reboot	Set the code to ON, then set it back.
3	Reserved	—
4	Reserved	—

【Console Port Connection】



The series 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】

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:

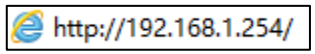
LED	Indicate	Description
P1/P2/PWR	ON	Power supply is running normally
	OFF	Power supply is disconnected or running abnormally
ALARM	ON	Power supply or port link has alarm
	OFF	Power supply, port link without alarm
RUN	ON	The device is powering on or the device is abnormal
	OFF	The device is powered off or the device is abnormal.
	Blinking	Blinking 1 time per second, system is running normally
Link/Act (1-20, G1-G4)	ON	Ethernet port has established a valid network connection
	Blinking	Ethernet port is in an active network status
	OFF	Ethernet port has not established a valid network connection

【Logging in to WEB Interface】

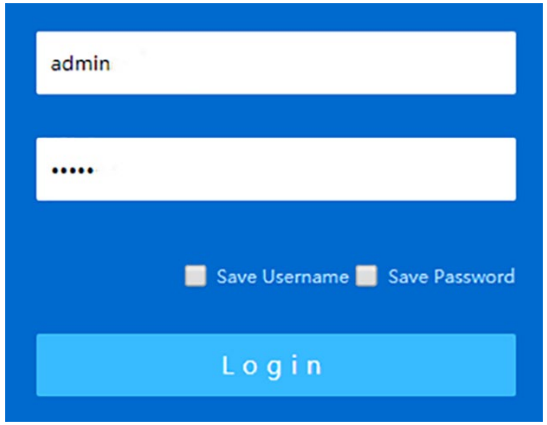
Support WEB management and configuration. Computer can access the device via Ethernet interface. The way of logging in to device's configuration interface via IE browser is shown as below:

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.



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 username or password is lost, user can restore it to factory settings via 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	
Gigabit SFP	1000Base- X, SFP slot
100M copper port	10Base-T/100Base-TX, RJ45, Automatic Flow Control, Full/Half Duplex Mode, MDI/MDI-X Autotunning

100M fiber port	100Base-X, optional SC/ST/FC
Console port	CLI command management port (RS-232), RJ45
Alarm port	2-pin 7.62mm pitch terminal blocks, supports 1 relay alarm output, and the current load capacity is 1A@24VDC or 0.5A@120VAC
Indicator	Power indicator, running indicator, alarm indicator, interface indicator
Switch Property	
Backplane bandwidth	12.8Gbps
Cache size	4.1Mbit
MAC address table	8K
Power Supply	
DC power supply	2 12/24/48VDC (9~60VDC), dual power supply redundancy, support anti-reverse connection
AC power supply	1 110/220VAC/DC power supply input
Access terminal block	4-pin 7.62mm pitch terminal blocks
Power Consumption	
Model I	No-load: 11.571W@48VDC Full-load: 12.96W@48VDC
Model II	No-load: 8.9W@220VAC Full-load: 12.9W@220VAC
Model III	No-load: 6.79W@48VDC Full-load: 11.15W@48VDC
Model IV	No-load: 6.3W@220VAC Full-load: 10.5W@220VAC
Model V	No-load: 5.2W@48VDC Full-load: 9.6W@48VDC
Model VI	No-load: 4.7W@220VAC
	Full-load: 9.0W@220VAC
Model VII	No-load: 4.9W@48VDC Full-load: 9.6W@48VDC
Model VIII	No-load: 5.1W@220VAC Full-load: 9.4W@220VAC
Working Environment	
Working temperature	-40℃~75℃
Storage temperature	-40℃~85℃
Working humidity	0%~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.