



# ICS5400SL Series Layer 3 Managed Industrial Ethernet Switch Quick Installation Guide

## 【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 are rack-mounted layer 3 industrial Ethernet switches. The models are as follows:

Model I. ICS5400SL-24GT4XS-2LV-N (24 Gigabit copper ports + 4 10Gigabit SFP+ slots + 2 24/48VDC (18~72VDC) redundant power supply inputs)

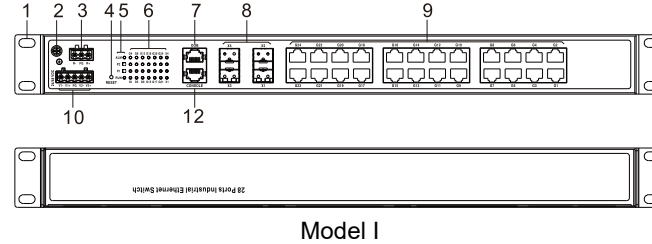
Model II. ICS5400SL-24GT4XS-2HV-N (24 Gigabit copper ports + 4 10Gigabit SFP+ slots + 2 110/220VAC (85~264VAC) redundant power supply inputs)

Model III. ICS5400SL-24GP4XS-2LV-N (24 Gigabit PoE copper ports + 4 10Gigabit SFP+ slots + 2 48VDC (44~55VDC) redundant power supply inputs)

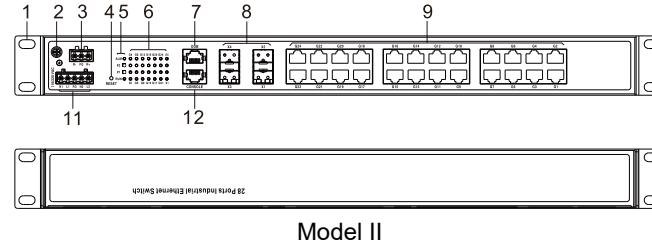
Model IV. ICS5400SL-24GP4XS-HV-N (24 Gigabit PoE copper ports + 4 10Gigabit SFP+ slots, 1 110/220VAC (100~240VAC) power supply input).

## 【Panel Design: Model I, II】

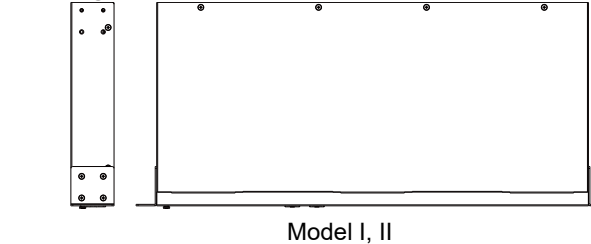
### ➤ Front view and rear view



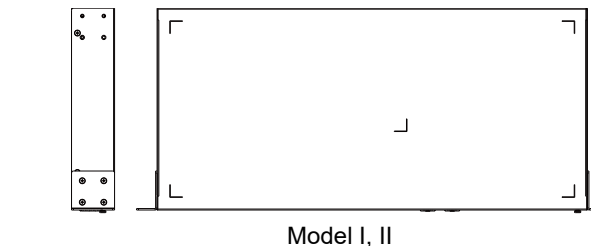
### ➤ Front view and rear view



### ➤ Right view and top view



### ➤ Left view and bottom view

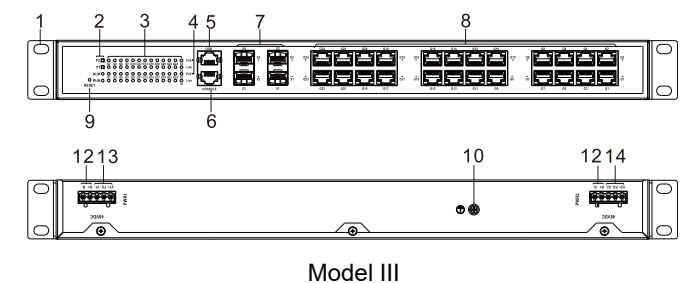


1. Lugs
2. Grounding screw (M4)
3. Relay alarm output interface
4. RESET button
5. Device indicators, from top to bottom in turn they are:
  - Alarm indicator (ALM)

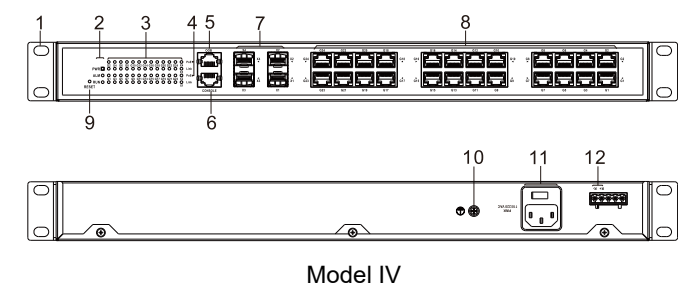
- Power supply indicator (P2-P1)
  - Running indicator (RUN)
6. Ethernet port indicator (G1-G24, X1-X4)
  7. Out-of-Band Management Port (OOB)
  8. 1G/2.5G/10GBase-X 10Gigabit SFP+ slot (X1-X4)
  9. 10/100/1000Base-T(X) Gigabit copper port (G1-G24)
  10. Terminal blocks for DC power input (V1-, V1+, V2-, V2+)
  11. Terminal blocks for AC power input (N1, L1, N2, L2)
  12. CONSOLE port

## 【Panel Design: Model III, IV】

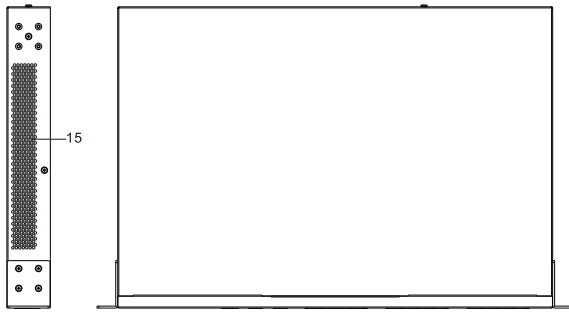
### ➤ Front view and rear view



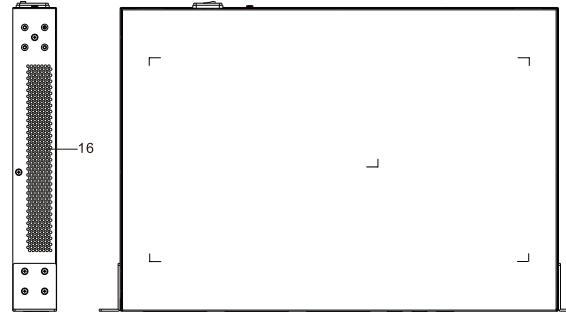
### ➤ Front view and rear view



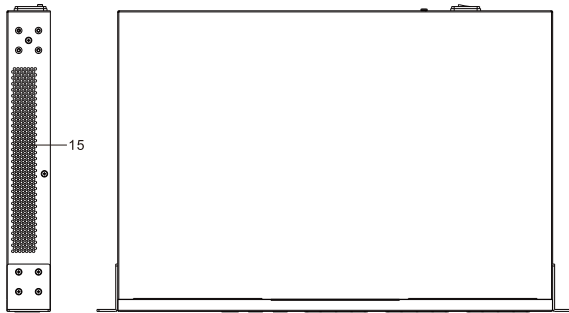
### ➤ Right view and top view



Model III

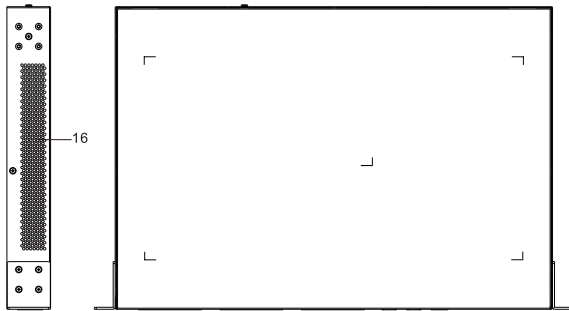


Model IV



Model IV

➤ **Left view and bottom view**

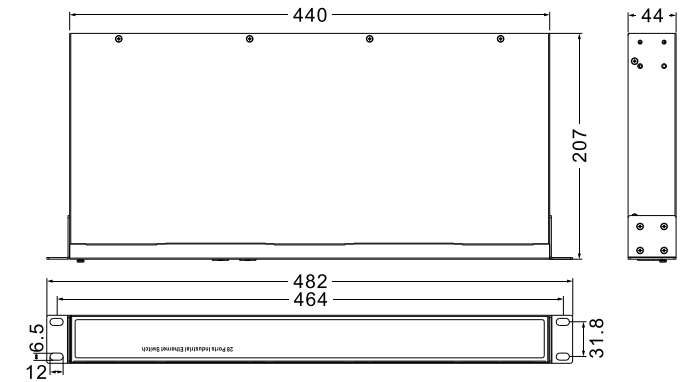


Model III

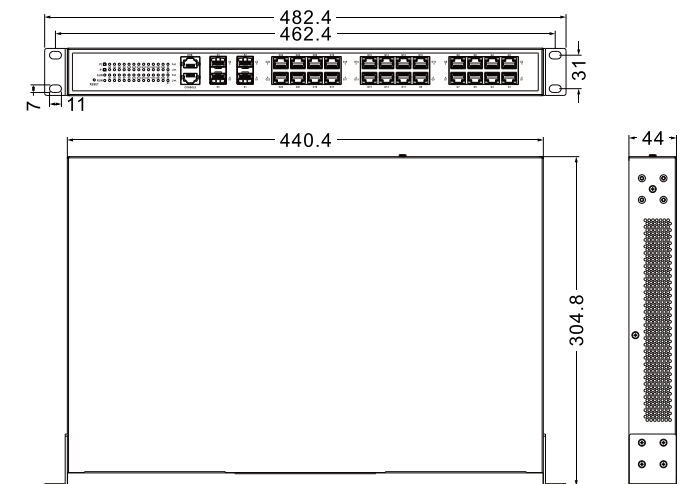
1. Lugs
2. Device indicators, from top to bottom in turn they are:
  - Power indicator (P1-P2, PWR)
  - Alarm indicator (ALM)
  - Running indicator (RUN)
3. Ethernet port indicator (Link: G1-G24, X1-X4)
4. PoE indicator (PoE: G1-G24)
5. Out-of-Band Management Port (OOB)
6. CONSOLE port
7. 1G/2.5G/10GBase-X 10Gigabit SFP+ slot (X1-X4)
8. 10/100/1000Base-T(X) Gigabit PoE copper port (G1-G24)
9. RESET button
10. Grounding screw (M4)
11. AC power supply input (PWR)
12. Relay alarm output interface (R+, R-)
13. Terminal blocks for DC power input (PWR1: V1+, FG, V1-)
14. Terminal blocks for DC power input (PWR2: V2+, FG, V2-)
15. Right ventilation hole
16. Left ventilation hole

**【Mounting Dimension】**

Unit: mm



Model I and II have the same dimensions



Model III and IV have the same dimensions.



**Notice Before Mounting:**

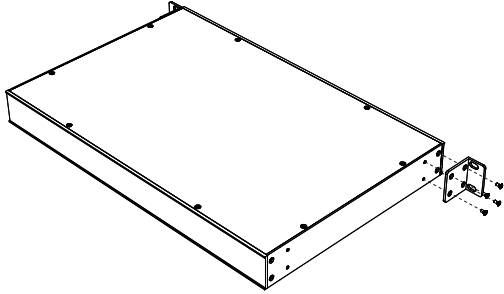
- Don't place or install the device in area near water or moisture, keep the relative humidity of the device surrounding between 5%~95% without condensation.
- Before powering on the device, check the power specifications supported by the device to prevent device damage due to overvoltage.
- The device surface temperature is high after running; please don't directly contact to avoid scalding.

## 【Install Rack-Mounted Device】

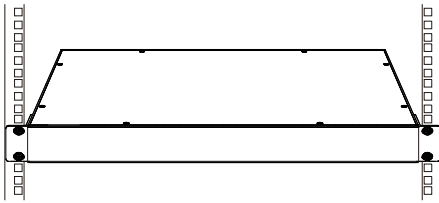
This product adopts 1U rack-mounting, mounting steps are as below:

**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:

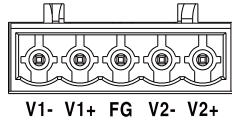
- Power ON operation: First insert the power supply terminal block into the device power supply interface, and then plug the power supply plug and power on.
- Power OFF operation: First, remove the power plug, and then remove the wiring section of terminal block.

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.

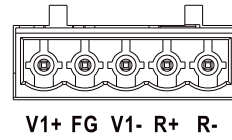
## 【Power Supply Connection】

### ➤ DC device power supply 1



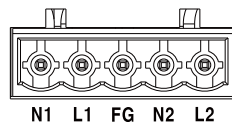
Model I provides 5-pin 5.08mm pitch terminal blocks and the built-in dual power supply redundancy supports DC power input. The power input supports 1 single power supply input or 2 power supply inputs at the same time; When two power supply input at the same time, it supports redundant backup of power 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 24/48VDC (18~72VDC).

### ➤ DC device power supply 1



Model III provides 5-pin 5.08mm pitch terminal blocks and the built-in dual power supply redundancy supports DC power input. 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. 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 input range is 48VDC (44~55VDC).

### ➤ AC device power supply 1



Model II provides 5-pin 5.08mm pitch terminal blocks and supports AC power input. 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 110/220VAC (85~264VAC).

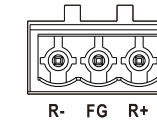
### ➤ AC device power supply 2

Model IV provides 1 AC power supply access interface which comes with a rocker switch.

Power supply input range: 110/220VAC (100~240VAC)

## 【Relay Connection】

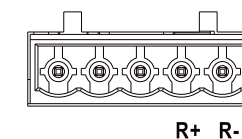
### ➤ Relay 1



Model I and Model II adopts 3-pin 5.08mm pitch terminal blocks, pin definitions are shown in the left figure. Support 1 relay alarm output. The relay supports the 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. The default relay status is shown in the table below.

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

### ➤ Relay 2



Model III and Model IV adopt 5-pin 5.08mm pitch terminal blocks, relay occupies 2 pins, the pin definition is

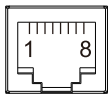
shown in the left figure. Support 1 relay alarm output. The relay supports the power supply alarm information or network abnormality alarm. It can be connected to alarm light or alarm buzzer or other switching value collecting devices, which can timely inform operators when the alarm occurs. The default relay status is shown in the table below.

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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】

The device provides 1 RESET button, press the RESET button for 1~2s and release it, and the device will restart automatically; Press and hold the RESET button for 5s and release it, and the device will 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, and the RJ45 pin definitions are 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 P1/2 is running normally
	OFF	Power P1/2 is disconnected or running abnormally
ALM	ON	Power supply or port link has alarm
	OFF	Power supply, port link without 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 (G1-G24, X1-X4)	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
PoE (G1-G24)	ON	POE port is powering other PD devices normally
	OFF	POE is disabled or PD device is disconnected

### 【Logging in to WEB Interface】

This device supports WEB management and configuration. Computer can access the device via Ethernet interface. The way of logging in to device's configuration interface via 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 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 username and password of the device are “admin123”.
- 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 copper port	10/100/1000Base-T(X) self-adaption or forced mode, RJ45, Automatic Flow Control, Full/Half Duplex Mode, MDI/MDI-X Autotunning
Gigabit PoE	10/100/1000Base-T(X) adaptive or forced mode, RJ45, automatic flow control, full/half duplex mode adaptive, MDI/MDI-X automatic detection; A single port supports a maximum of 30W PoE

	power supply output. PoE power supply pin 1 and 2 are positive, 3 and 6 are negative, 4, 5, 7, 8 are reserved
10Gigabit SFP+	10G Base-X self-adaption, 1G/2.5G forced mode, SFP+ slot
Relay (Model I, II)	1 relay alarm information output, using 3-pin 5.08mm pitch terminal blocks, and the current load capacity is 1A@30VDC or 0.3A@125VAC
Relay (Model III)	2 relay alarm outputs, adopt 5-pin 5.08mm pitch terminal blocks. Relay occupies 2 pins, the current carrying capacity is 1A@30VDC or 0.3A@125VAC
Relay (Model IV)	1 relay alarm output, adopt 5-pin 5.08mm pitch terminal blocks. Relay occupies 2 pins, the current carrying capacity is 1A@30VDC or 0.3A@125VAC
OOB port	Out-of-Band Management Port, which could be used to configure WEB and upgrade software directly
CONSOLE port	CLI command line management port (RS-232), RJ45
Indicator	Power indicator, alarm indicator, running indicator, interface indicator, PoE indicator
<b>Switch Property</b>	
Backplane bandwidth	128Gbps
Buffer size	12Mbit
MAC address table	16K
<b>Power Supply</b>	
Model I	24/48VDC (18~72VDC), dual power supply redundancy, using 5-pin 5.08mm pitch terminal blocks, supports non-polarity
Model II	110/220VAC (85~264VAC/DC), dual

	power supply redundancy, using 5-pin 5.08mm pitch terminal blocks
Model III	48VDC (44~55VDC), dual power supply redundancy, using 5-pin 5.08mm pitch terminal blocks, supports non-polarity
Model IV	100/220VAC (100~240VAC), single power input, AC power supply socket with switch
<b>Power Consumption</b>	
Model I	<ul style="list-style-type: none"> <li>- No-load at normal temperature: 7.6W@48VDC</li> <li>- Full-load at normal temperature: 20.7W@48VDC</li> <li>- No-load at high temperature: 9.8W@48VDC</li> <li>- Full-load at high temperature: 22.9W@48VDC</li> </ul>
Model II	<ul style="list-style-type: none"> <li>- No-load at normal temperature: 7.1W@220VAC</li> <li>- Full-load at normal temperature: 20.7W@220VAC</li> <li>- No-load at high temperature: 8.8W@220VAC</li> <li>- Full-load at high temperature: 22.6W@220VAC</li> </ul>
Model III	<ul style="list-style-type: none"> <li>- No-load at normal temperature: 9.12W@48VDC</li> <li>- Full-load at normal temperature: 696W@48VDC (with PoE)</li> <li>- No-load at high temperature: 10.58W@48VDC</li> <li>- Full-load at high temperature: 698.4W@48VDC (with PoE)</li> </ul>

Model IV	<ul style="list-style-type: none"> <li>- No-load at normal temperature: 12.2W@220VAC</li> <li>- Full-load at normal temperature: 332.4W@220VAC (with PoE)</li> <li>- No-load at high temperature: 13.2W@220VAC</li> <li>- Full-load at high temperature: 339.8W@220VAC (with PoE)</li> </ul>
<b>Working Environment</b>	
Working temperature	-40~75°C
Storage temperature	-40~85°C
Working humidity	5%~95% (no condensation)
Protection grade	Model I, II: IP40 (metal shell) Model III, V: IP30(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.