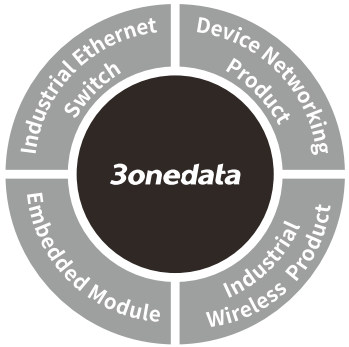
3onedata
Make network communication more reliable

ICS5428 Series
Layer 3 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
2. Lug x2
3. Power line x2 (AC products only)
4. Foot pad x4
5. Certification
6. 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 are managed Layer 3 industrial Ethernet switches.

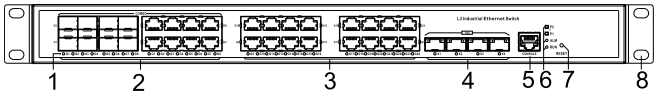
The models are:

Model I. ICS5428-16GT8GC4XS-2LV (16 Gigabit copper ports + 8 Gigabit COMBO + 4 10Gigabit SFP+ slots, 2*24/48VDC (18~72VDC) redundant power supply inputs)

Model II. ICS5428-16GT8GC4XS-2HV (16 Gigabit copper ports + 8 Gigabit COMBO + 4 10Gigabit SFP+ slots, 2*110/220VAC (85~264VAC/DC) power supply inputs)

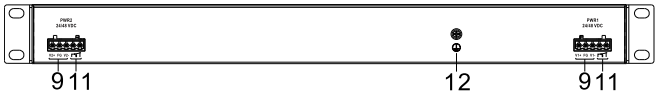
【Panel Design】

➢ **Front view**



Model I, II

➢ **Rear view**

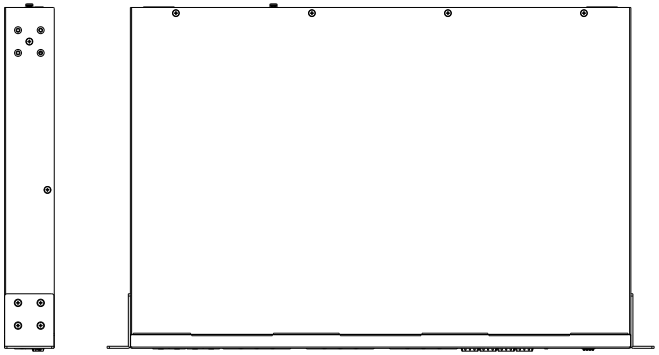


Model I

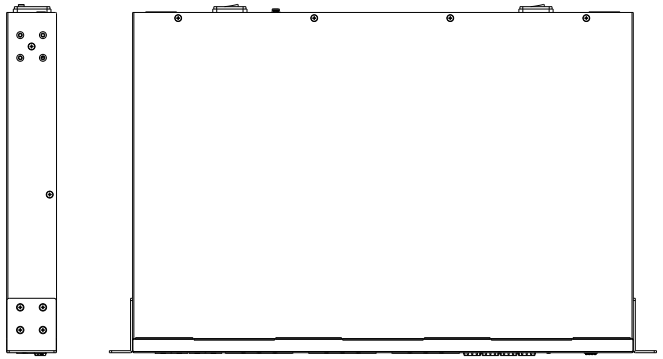


Model II

➢ **Right view and top view**

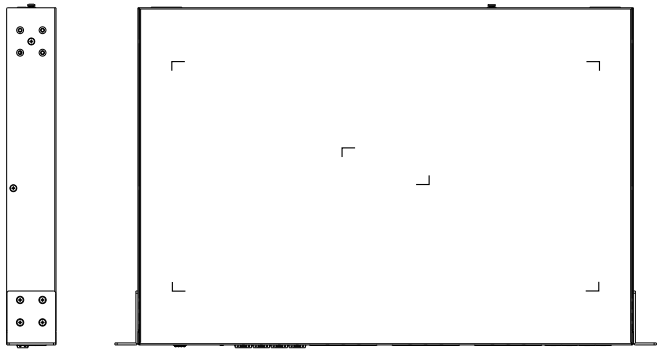


Model I

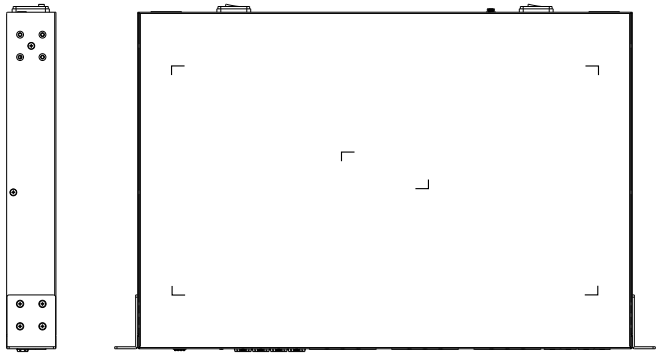


Model II

➢ **Left view and bottom view**



Model I



Model II

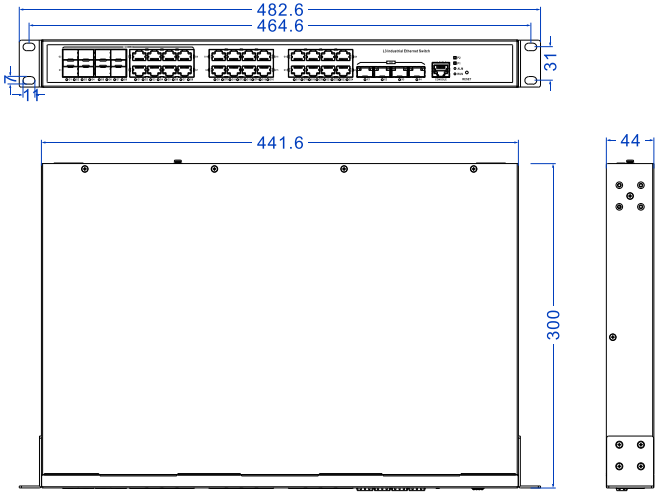
1. Ethernet port indicator (G1-G24, X1-X4)
2. Gigabit Combo port (G1-G8)
3. Gigabit Ethernet copper port (G9-G24)

4. 10Gigabit SFP+ slot (X1-X4)
5. CONSOLE port
6. Device indicators, from top to bottom in turn they are:
   - Power indicator (P2/P1)
   - Alarm indicator (ALM)
   - Running indicator (RUN)
7. Restore default settings(RESET)
8. Lugs
9. DC power input terminal (PWR2/PWR1)
10. AC power input socket (PWR2/PWR1)
11. Relay output terminal (1-2)
12. Grounding screw (M4)

【Mounting Dimension】

Note:

The physical dimensions of this series of products are the same.



Notice Before Mounting:

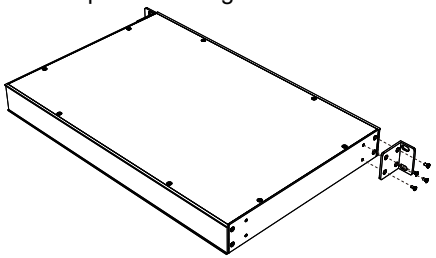
- Don't place or install the device in area near water or moisture, keep the relative humidity of the device surrounding between 5%~95% without condensation.
- Before powering on the device, check the power specifications supported by the device to prevent device damage due to overvoltage.
- The device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

【Install Rack-Mounted Device】

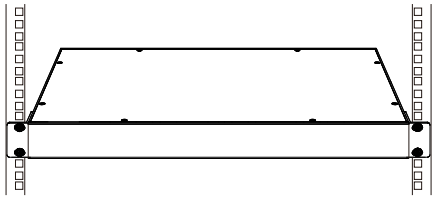
This product adopts rack-mounting, mounting steps as below:

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.

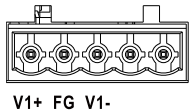
Step 3 Shift out the device from rack, disassembling ends.

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 switch "—" means power ON, "O" means power OFF.
- Power OFF operation: First, put the powers switch to the "O" side and then disconnect the power supply. Finally disconnect the connector between the device and the power cord. Please notice the operation order above.
- 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.

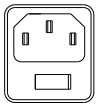
【Power Supply Connection】

➢ **DC power supply**



Model I supports 2 DC power inputs, and adopts 5-pin 5.08mm pitch terminal block, and the power supply occupies the left 3 pins. 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 pin definition is shown in the figure, and the power input range is 24/48VDC/(18~72VDC).

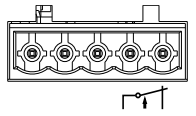
➢ **AC power supply**



Model II supports 2 independent power supplies, which adopts single-phase power socket with switch.

Voltage range: 110/220VAC (85~264VAC/DC).

【Relay Connection】



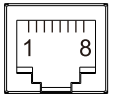
Model I and Model II support 2 relay alarm information outputs which are 5-pin 5.08mm pitch input terminal blocks. The relay occupies the right 2 pins and supports the output of AC/DC power supply alarm, port alarm, temperature alarm or network load alarm. It can be connected to alarm light or alarm 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

【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, and the RJ45 pin definitions are as follows:

Pin No.	2	3	5
Definition	TXD	RXD	GND

Connect the CONSOLE port through software. The default configuration is as follows:

Serial Port Connection	Default
Baud rate	115200 bps
Data bit	8 bits
Parity bit	None
Stop bit	1 bit

【Reset Button Setting】

RESET

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.

【Checking LED Indicator】

The series products provide LED indicators to monitor the device working status with a comprehensive simplified troubleshooting; the function of each LED is described in the table as below:

LED	Indicate	Description
P1/P2	ON	Power is connected and running normally
	OFF	Power supply is disconnected or running abnormally
RUN	Blinking	The system is running normally
	OFF	The system is not running or running abnormally
	ON	System is running abnormally
ALM	ON	Power supply or port link has alarm
	OFF	Power supply, port link without alarm
Link/Act (G1-G24, X1-X4)	ON	Port has established a valid network connection
	Blinking	Port is in a network communication status
	OFF	Port hasn't established valid network connection.

【Logging in to WEB Interface】

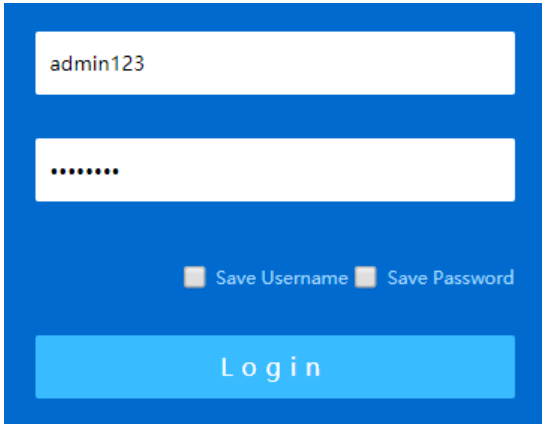
This device supports WEB management and configuration. Computer can access the device via Ethernet interface. The way of logging in to device's configuration interface via IE browser is shown as below:

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 username and password of the device are "admin123".
- 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	
10Gigabit SFP+	1G/2.5G/10GBase-X self-adaptive SFP+ slot
Gigabit COMBO	10/100/1000Base-T(X) RJ45 or 100/1000Base-X SFP slot
Gigabit copper port	10/100/1000Base-T(X) self-adapting RJ45 port, half/full duplex self-adaption or forced working mode, support MDI/

	MDI-X self-adaption
CONSOLE port	CLI command management port (RS-232), RJ45
Alarm port	2 5-pin 5.08mm pitch terminal blocks(relay occupies 2 pins), support 2 relay alarm outputs, current loading capacity is 2A@30VDC or 2A@220VAC
Indicator	Power indicator, alarm indicator, running indicator, interface indicator
Switch Property	
Backplane bandwidth	128Gbps
Buffer size	12Mbit
MAC address table	16K
Power Supply	
Model I	2*24/48VDC(18~72VDC) redundant power inputs, adopt 5-pin 5.08mm pitch terminal blocks (power supply occupies 2 pins)
Model II	2*110/220VAC (85~264VAC/DC) redundant power inputs, and adopt single-phase socket with rocker switch
Power Consumption	
Model I	No-load at normal temperature: 9.39W@48VDC Full-load at normal temperature: 26.35W@48VDC Full-load at high temperature: 29.07W@48VDC
Model II	No-load at normal temperature: 9.76W@220VAC Full-load at normal temperature: 27.38W@220VAC Full-load at high temperature: 30.25W@220VAC
Working Environment	
Working temperature	-40~75℃
Storage temperature	-40~85℃
Operating 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.