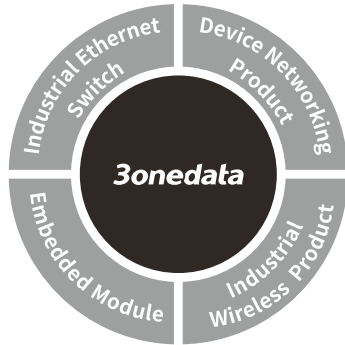# 3onedata
Make network communication more reliable

ICS5428 Series
Industrial Layer 3 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. Quick installation guide
3. Power line x2 (AC products only)
4. Serial port line
5. Rack-mounting lug x2
6. Foot pad x4
7. Software installation CD
8. Warranty card
9. Certification

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 industrial Ethernet switches. The models are:

Model I.   ICS5428-16GT8GC4XS-2P220 (4 10GbE SFP (10 Gigabit/Gigabit Self-adaption) + 8 Gigabit Combo + 16 Gigabit Copper Ports + 2 220VAC Power Supplies)

Model II.   ICS5428-16GT8GC4XS-2P48 (4 10GbE SFP (10 Gigabit/Gigabit Self-adaption) + 8 Gigabit Combo + 16 Gigabit Copper Ports + 2 48VDC Power Supplies)

Model III. ICS5428-16GT4GS8GC-2P220 (4 Gigabit SFP + 8 Gigabit Combo + 16 Gigabit Copper Ports + 2 220 VAC Power Supplies)

Model IV.   ICS5428-16GT4GS8GC-2P48 (4 Gigabit SFP + 8 Gigabit Combo + 16 Gigabit Copper Ports + 2 48VDC Power Supplies)

【AC Panel Design】
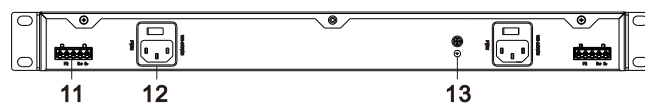
➢ **Front panel**
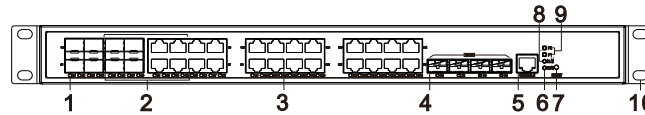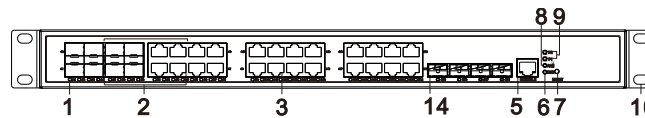
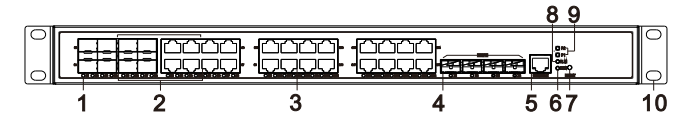Model I

Model III

➢ **Rear panel**

Model I, III

1. Ethernet port indicator
2. Gigabit Combo port
3. Gigabit Ethernet copper port
4. 10 Gigabit SFP + port (10Gigabit / Gigabit self-adaption)
5. Console port
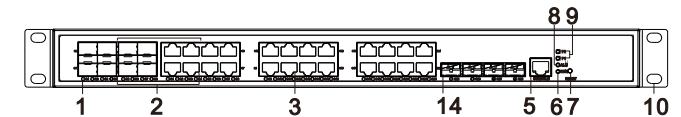6. Device running status indicator
7. Restoring factory setting button
8. Alarm indicator
9. Power indicator (P1/P2)
10. Lugs
11. Relay output terminal blocks
12. AC power input
13. Grounding screw
14. Gigabit SFP

【DC Panel Design】
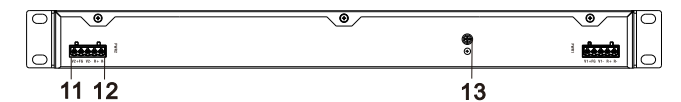
➢ **Front panel**

Model II

Model IV

➢ **Rear panel**

Model II, IV

1. Ethernet port indicator
2. Gigabit Combo port
3. Gigabit Ethernet copper port
4. 10 Gigabit SFP + port (10Gigabit / Gigabit self-adaption)
5. Console port
6. Device running status indicator
7. Restoring factory setting button
8. Alarm indicator
9. Power indicator (P1/P2)
10. Lugs
11. DC power input
12. Relay output terminal blocks

13. Grounding screw
14. Gigabit SFP

【Mounting Dimension】

Unit: mm
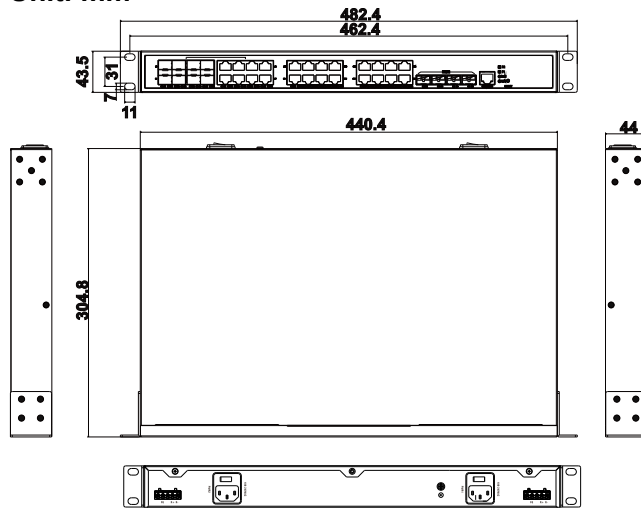
⚠ **Notice Before Mounting:**

- 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.
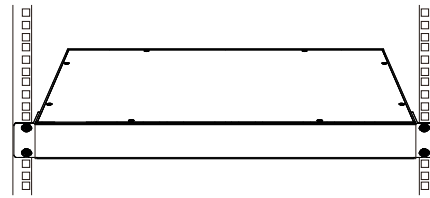
【Rack-mounted】

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

Step 1　Select the device mounting location to ensure enough size.

Step 2　Adopt 4 bolts to install the mounting lugs in the device position as figure below.
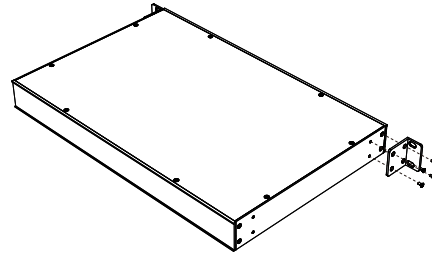
Step 3　Place the device in the rack; adopt 4 bolts to fix two sides mounting lugs in the rack.

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

【Disassembling Device】

Step 1　Device power off.

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 power on:**

- Power ON operation: First insert the power supply terminal block into the device power supply interface, and then plug the power supply plug contact 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.
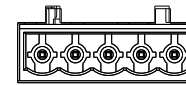
【Power Supply Connection】

➢ **AC power supply**
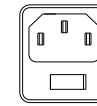
Model I, III of this device provide 2 AC power supply access interfaces which come with a switch.

Power supply range: 100~240VAC/DC.

➢ **DC power supply**

Model II, IV of this device provide 2 DC power supplies which are 5-pin 5.08mm pitch terminal blocks. The power supply occupies 3 pins on the left side and supports anti-reverse connection. Power supply range: 36~72VDC

【Restore Factory Settings】

RESET is restoring default settings button. Device Restoring default settings steps as follows: press and hold the RESET button, power on the device again, wait for about 3~4 seconds to restore the factory settings.
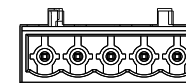
【Relay Connection】

➢ **DC products**
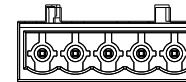
Model II, IV of this device support 2 relay alarm information outputs which are 5-pin 5.08mm pitch terminal blocks. It occupies 2 pins on the right side and R+ and R- are relay alarm output parts. They are open circuit in normal non alarm state, closed when any alarm information occurs. The relay can externally connect to alarm lights or alarm buzzer or other switching value collecting device in order to timely notify operators when the alarm occurs.

➢ **AC products**

Model I, III of this device support 2 relay alarm information outputs which are 5-pin 5.08mm pitch terminal blocks. R+ and R- are relay alarm output parts. They are open circuit in

normal non alarm state, closed when any alarm information occurs. The relay can externally connect to alarm lights or alarm buzzer or other switching value collecting device in order to timely notify operators when the alarm occurs.

【Console Port Connection】

The series products 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
Definition	TXD	RXD	GND

【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	ON	PWR is connected and running normally
	OFF	PWR is disconnected and running abnormally
P2	ON	PWR is connected and running normally
	OFF	PWR is disconnected and 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 the port link is alarming.
	OFF	Power and the port link have no alarm
Link (G1-G2	ON	Port has established valid network connection

LED	Indicate	Description
4/G28, X1-X4)	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 "OK" button to login to the WEB interface of the device.

【Specification】

Panel	
10GbE interface	10GbE SFP+ port (10Gigabit / Gigabit self-adaption)
Gigabit SFP	1000Base-SFP slot
1000M Combo port	10/100/1000Base-T(X) RJ45 or 1000 Base-SFP interface optional
Gigabit copper port	10/100/1000 Base-T(X) self-adapting RJ45 port, half/full duplex self-adapting or compulsive working mode, support MDI/MDI-X self-adapting
Console port	CLI command management port (RS-232), RJ45
Alarm interface	5-pin 5.08mm pitch terminal block (R+/R-), support 2 relay alarm information outputs

Indicator	Power indicator, system alarm indicator, device running status indicator, interface connection/running status indicator
Switch Property	
Backplane bandwidth	128G
Packet buffer size	12Mbit
MAC Address Table	16K
Power Supply	
Input power supply	100~240VAC/DC or 36~72VDC
Access terminal block	Support single-phase socket with rocker switch or 5-pin 5.08mm pitch terminal blocks
Power Consumption	
No-load	10.5W@220VAC
Full-load	25.3W@220VAC
Working Environment	
Working temperature	-40～75℃
Storage temperature	-40～85℃
Working humidity	5%～95% (no condensation)
Protection grade	IP30(metal shell)