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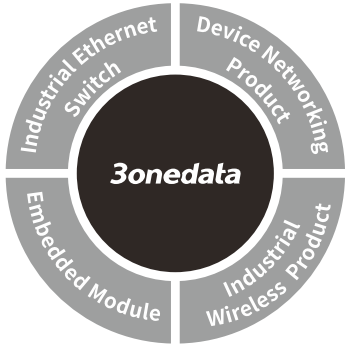
Make network communication more reliable

MES5400 Series
Layer 3 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 ×2 (only for AC device)
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.

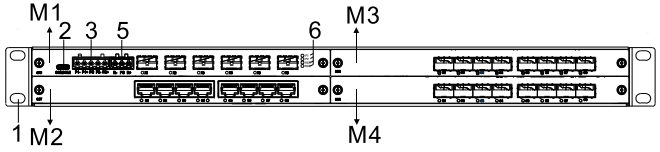
【Product Overview】

This series product is a rack-mounted layer 3 managed industrial Ethernet switch. Support 4 Gigabit daughter board slots, 1 of which supports 6-SFP slot daughter board, and the other 3 support 8-SFP slot daughter board or 8-copper port daughter board.

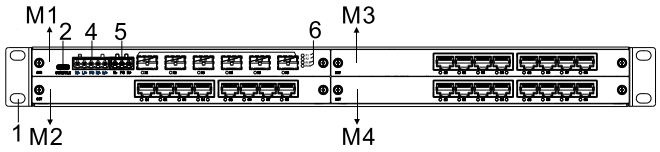
- DC products: support 2 hot-swappable 48VDC power inputs
- AC products: support 2 x 220VAC (110~240VAC) power inputs

【Panel Design】

➢ **Front view**

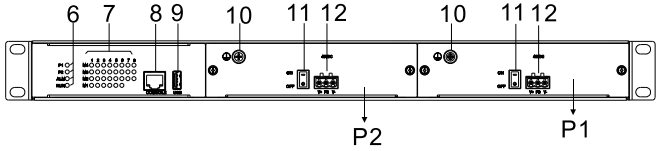


DC products

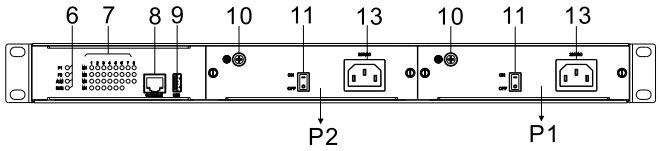


AC products

➢ **Rear View**

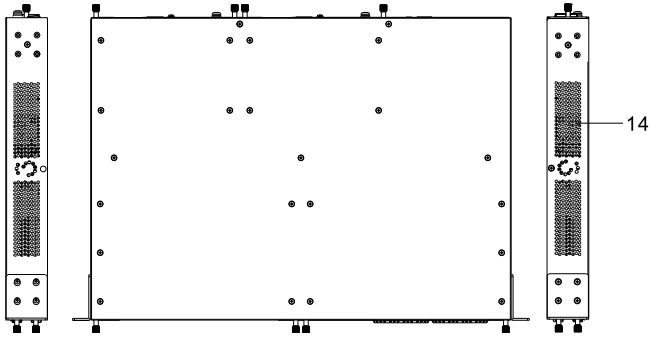


DC products



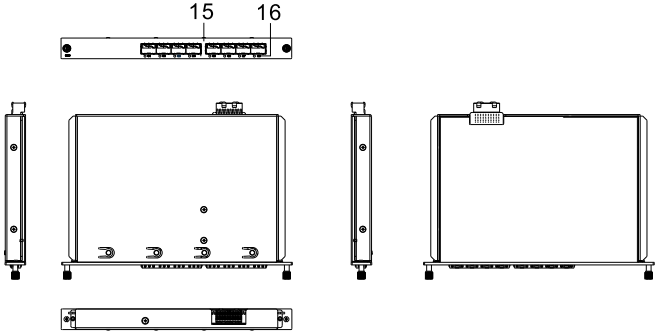
AC products

➢ **Right view, top view, left view**

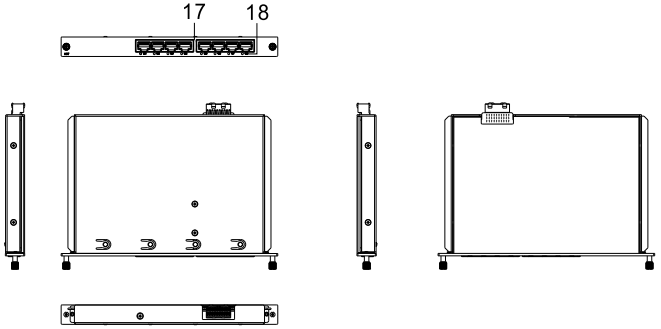


DC/AC products

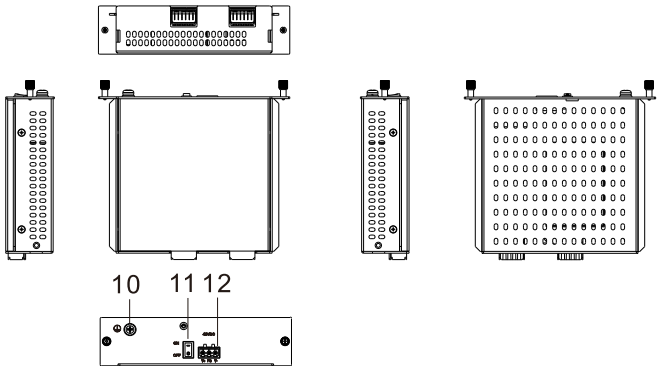
➢ **Front view, right view, top view, left view, rear view and bottom view**



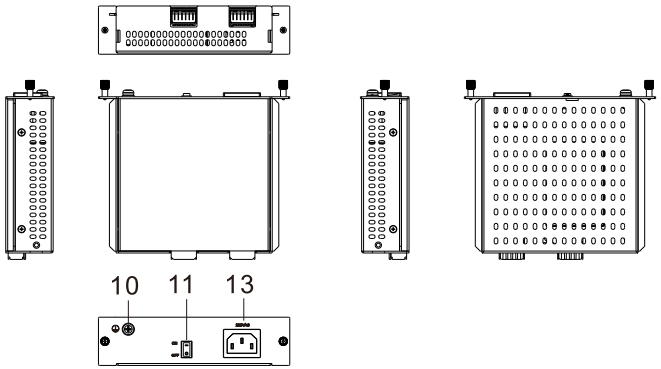
8GS daughter board



8GT daughter board



DC daughter board



AC daughter board

1. Lugs
2. CONSOLE port (front panel: Type-C)
3. DC power input terminal block (front panel)
4. AC power input terminal block (front panel)
5. Relay alarm output terminal block (R-, FG, R+)
6. Device indicators, from top to bottom in turn they are:
   - Power supply indicator (P1-P2)
   - Alarm indicator (ALM)
   - Running indicator (RUN)
7. Device indicators, from top to bottom in turn they are:
   - M4 daughter card Ethernet port indicator (G1-G8)
   - M3 daughter card Ethernet port indicator (G1-G8)
   - M2 daughter card Ethernet port indicator (G1-G8)
   - M1 daughter card Ethernet port indicator (X1-X6)
8. CONSOLE port (back panel: RJ45)
9. USB2.0 port
10. Grounding screw (M5)
11. Power switch (ON and OFF)
12. Terminal blocks for DC power input (back panel: P1, P2)
13. Outlet for AC power input (back panel: P1, P2)
14. Device heat dissipation hole
15. Daughter card of Gigabit copper port (8GT)
16. Gigabit copper port indicator (G1-G8)
17. Daughter card of Gigabit SFP slot (8GS)
18. Gigabit SFP slot indicator (G1-G8)

The M2/M3/M4 daughter card of the device is not hot-swappable, and it needs to be powered on again to replace the daughter card of the device. The interface of the daughter card of the device is as follows:

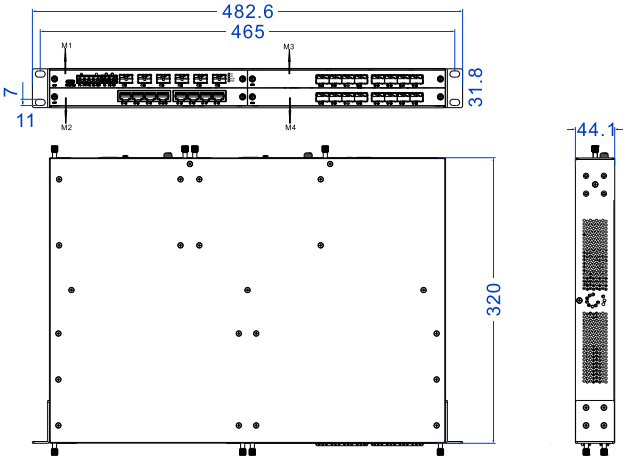
- M1 daughter card slot: Gigabit SFP (X1-X6) fixed slot
- M2 daughter card slot: Gigabit SFP/RJ45(G1-G8)
- M3 daughter card slot: Gigabit SFP/RJ45(G1-G8)
- M4 daughter card slot: Gigabit SFP/RJ45(G1-G8)
- P1 daughter card slot: AC/DC power supply
- P2 daughter card slot: AC/DC power supply

【Mounting Dimension】

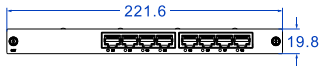
Unit: mm

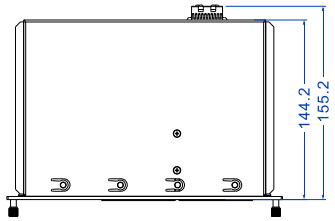
Note:

This series of products have the same shell size, GS/GT daughter boards have the same size, AC/DC daughter boards have the same size.

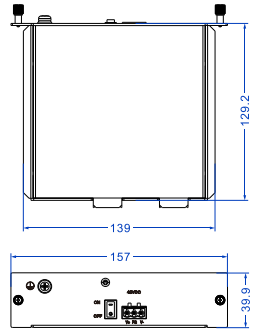


Product shell dimension





GS/GT daughter board size



AC/DC daughter board 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.

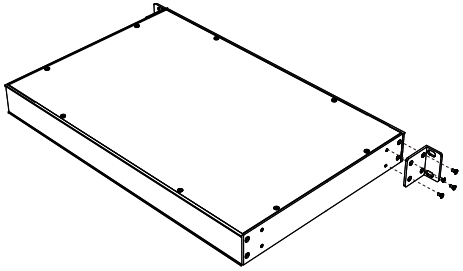
- Before powering on the device, check the power specifications supported by the device to prevent device damage due to overvoltage.
- The device surface temperature is high after running; please don't directly contact to avoid scalding.

【Install Rack-Mounted Device】

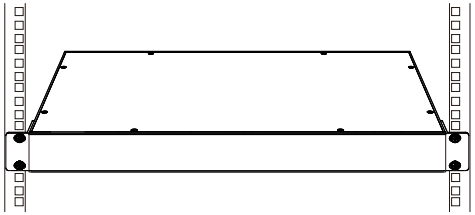
This product adopts 1U rack-mounting, mounting steps as below:

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.

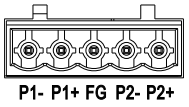
Step 3 Shift the device away from the rack, then disassembling ends.

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.

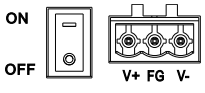
【Power Supply Connection】

➢ **DC device power supply (front panel)**



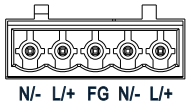
Provide 2 independent power supplies, support anti-reverse connection, and adopt 5-pin 5.08mm pitch terminal blocks. The rated voltage is 48VDC. The pin definitions of power supply are shown in the left figure.

➢ **DC device power supply (back panel)**



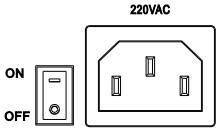
Provide 2 independent power supplies, support anti-reverse connection, and adopt 3-pin 5.08mm pitch terminal blocks with switch. The rated voltage is 48VDC. The pin definitions of power supply are shown in the left figure.

➢ **AC device power supply (front panel)**



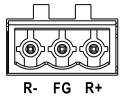
Provide 2 independent power supplies, and adopt 5-pin 5.08mm pitch terminal blocks. The rated voltage is 220VAC, and the power supply range is 110~240VAC. The pin definitions of power supply are shown in the left figure.

➢ **AC device power supply (back panel)**



Provide 2 independent power supplies, adopt three-phase power socket with switch. The rated voltage is 220VAC, and the power supply range is 110~240VAC.

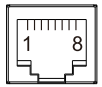
【Relay Connection】



Provide 3-pin 5.08mm pitch terminal block, 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

【Console Port Connection】



The back panel of 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, the RJ45 pin definition as follows:

Pin No.	2	3	5
Pin Definition	TXD	RXD	GND

【Console Port Connection】

The front panel of the device provides 1 program debugging port based on Type-C interface which can conduct device CLI command management after connecting to PC.

【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

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 (G1-G8, X1-X6)	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】

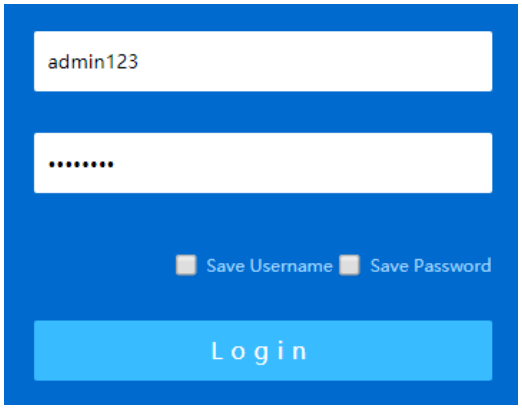
Support WEB management and configuration. Computer can access the device via Ethernet interface. The way of logging in to device's configuration interface via IE browser is shown as below:

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.

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 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	100/1000 Base-T(X) self-adapting RJ45 port, full/half duplex self-adapting or compulsive working mode, support MDI/MDI-X self-adapting
Gigabit SFP	100/1000Base-X SFP slot, 100M/Gigabit self-adaption
CONSOLE	CLI command line management port(RS-232), RJ45 and Type-C
Relay	Support 1 relay alarm output, adopt 3-pin 5.08mm pitch terminal blocks, the current carrying capacity is 2A@250VAC or 2A@30VDC
Indicator	Power indicator, running indicator, alarm indicator, interface indicator
Switch Property	
Backplane bandwidth	110Gbps
Buffer size	24Mbit
Power Supply	
DC product	Power input: support 2 hot-swappable 48VDC power inputs Connection mode: – Front panel: adopt 5-pin 5.08mm pitch terminal blocks – Back panel: adopt 2 3-pin 5.08mm pitch terminal blocks with switch
AC product	Power input: 2 x 220VAC (110~240VAC) power supply inputs Connection mode: – Front panel: adopt 5-pin 5.08mm pitch terminal blocks – Back panel: adopt 2 three-phase sockets with switch
Power Consumption	
MES5400-1U-8GT16GS6XS-2LV	– No-load at normal temperature: 12.48W@48VDC – Full-load at normal temperature: 33.6W@48VDC – No-load at high temperature: 14.56W@48VDC

	– Full-load at high temperature: 35.52W@48VDC
MES5400-1U-24GT6XS-2HV	– No-load at normal temperature: 12.09W@220VAC – Full-load at normal temperature: 27.35W@220VAC – No-load at high temperature: 16.63W@220VAC – Full-load at high temperature: 31.46W@220VAC
Working Environment	
Working temperature	-40~75℃
Storage temperature	-40~85℃
Working humidity	5%~95% (no condensation)
Protection grade	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.