3onedata
Make network communication more reliable

IES618-4D Series
Managed Industrial Ethernet Switch
Quick Installation Guide

3onedata Co., Ltd.

Address: 3/B, Zone 1, Baiwangxin High Technology Industrial Park, Xili, Nanshan District, Shenzhen

Website: www.3onedata.com

Tel: +86 0755-26702688

Fax: +86 0755-26703485

【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. Certification
4. 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 DIN-Rail industrial Ethernet switches. For convenience, the products of this series adopt the following number on the left in this guide, please confirm the number of your product:

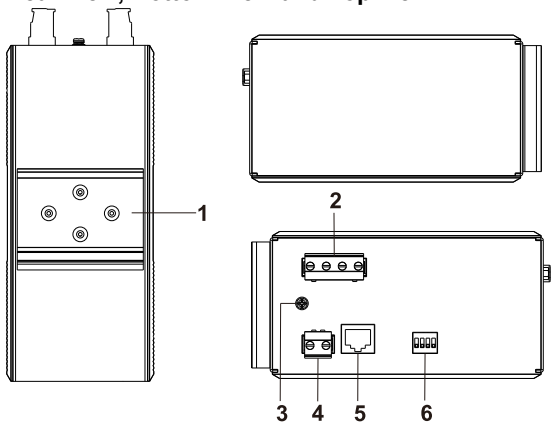
Model I. IES618-4DI (RS-485) (8 100M copper ports + 4 RS-485 interfaces)

Model II. IES618-2F-4DI (RS-485) (6 100M copper ports + 2 100M fiber ports + 4 RS-485 interfaces)

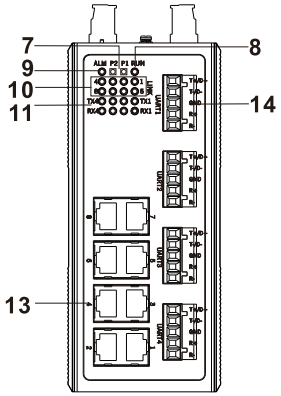
Model III. IES618-4F-4DI (RS-485) (4 100M copper port + 4 100M fiber ports + 4 RS-485 interfaces)

【Panel Design】

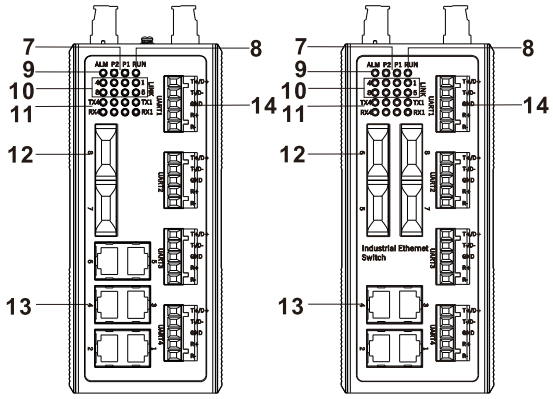
➢ **Rear view, Bottom view and Top view**



➢ **Front view**



Model I

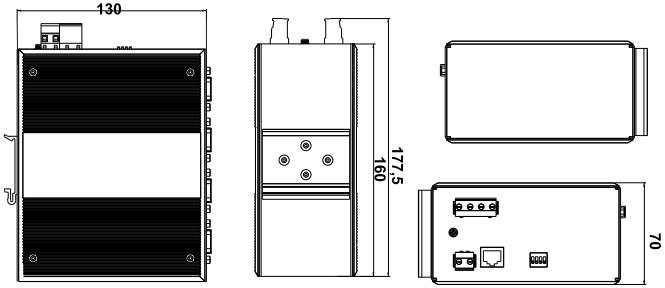


Model II Model III

1. DIN-Rail mounting kit
2. Power input terminal (PWR1, PWR2)
3. Grounding screw
4. Terminal blocks for relay alarm output (RELAY)
5. Console port
6. DIP switch
7. Power input status indicator (P1/P2)
8. Device running state indicator (RUN)
9. Relay alarm status indicator (ALM)
10. 100M Ethernet port indicator (1-8)
11. Serial port indicator (1-4)
12. 100M fiber port (5/7-8)
13. 100M copper port (1-4/8)
14. RS-485 port

【Mounting Dimension】

Unit: mm

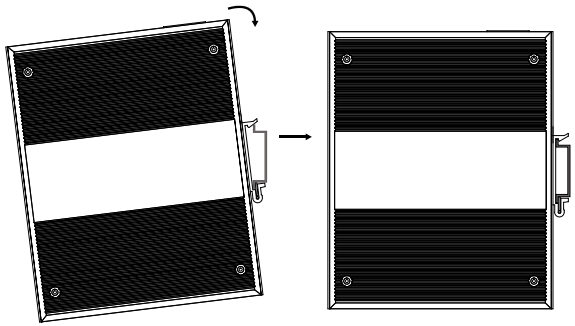


Notice Before Mounting:

- 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】

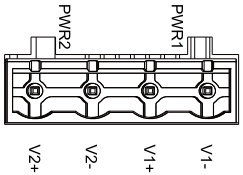
Step 1 Power off the device.

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:

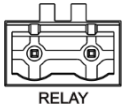
- Power ON operation: First insert the power supply terminal block into the device power supply interface, and then plug the power supply plug and power on.
- Power OFF operation: First, remove the power plug, then remove the wiring section of terminal block. Please pay attention to the above operation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

【Power Supply Connection】



The series provides 4-pin 7.62mm pitch input terminal blocks. It supports two independent DC power supply systems, P1 and P2, which could be used alone or externally connected with two independent DC power supply systems. Power supply supports nonpolarity, voltage range: 12VDC~48VDC. The pin definitions of power supply are as shown in the figure.

【Relay Connection】



This device supports 1 RELAY alarm information output, and adopts 2-pin 7.62mm pitch input terminal blocks.

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 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

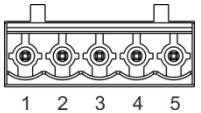
【DIP Switch Settings】

Provide 4 pins DIP switch for function settings, where "ON" is enable valid terminal. The device needs to be powered on again to change the status of DIP switch.

The definitions of DIP switch are as follows:

No.	Definition	Operation
1	Reserved	—
2	Upgrade	Set the DIP switch to ON, the program of this device can be upgraded, then turn off the DIP switch when this upgrade completes.
3	Restore Factory Settings	Set the DIP switch to ON, power on the device again, it will restore to factory settings, then turn off the DIP switch.
4	Reserved	—

【Serial Port Connection】



This series supports RS-485/422 serial port and adopts 5-pin 5.08mm pitch industrial terminal blocks.

The pin definitions as shown in the following table:

PIN	1	2	3	4	5
RS-422	T+	T-	GND	R+	R-
RS-485	D+	D-	—	—	—

【Console Port Connection】

The device provides 1 program debugging port based on RS232 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 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:

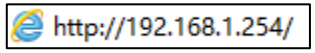
LED	Indicate	Description
P1/P2	ON	Power is connected and running normally
	OFF	Power supply is disconnected or running abnormally
ALM	ON	Power supply or the port link is alarming.
	OFF	Power supply, port link without alarm
RUN	ON	The device is powering on or the device is abnormal.
	OFF	The device is powered off or the device is abnormal.
	Blinking	Blinking 1 time per second, system is running well.
Link/Act (1-8)	ON	Ethernet port has established a valid network connection
	Blinking	Ethernet port is in an active network status
	OFF	Ethernet port has not established valid network connection
TX(1-4)	Blinking	The serial port is transmitting data.
	OFF	The serial port is not transmitting data
RX(1-4)	Blinking	The serial port is receiving data
	OFF	The serial port is not receiving data or not connected

【Logging in to WEB Interface】

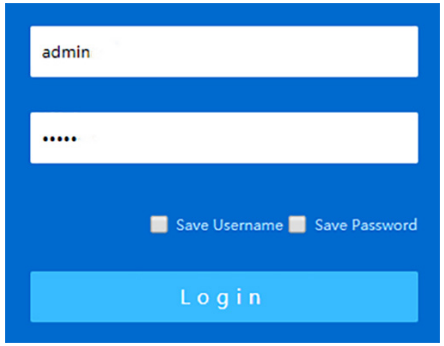
This device supports WEB management and configuration. Computer can access the device via Ethernet interface. The way of logging in to device's configuration interface via IE browser is shown as below:

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.



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.

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 device DIP switch 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	
100M copper port	10/100 Base-T(X) RJ45, automatic flow control, full/half duplex mode, MDI/MDI-X autotunning,
100M fiber port	100 Base-FX
Serial port	RS-485/422 terminal block
Console port	CLI command management port (RS-232), RJ45
Alarm port	2-pin 7.62mm pitch terminal blocks, supports 1 relay alarm message output, and the current load capacity is 1A@24VDC or 0.5A@120VAC
Indicator	Running Indicator, Port Indicator, Power Supply Indicator, Alarm Indicator
Switch Property	
Backplane bandwidth	5.6G
Packet buffer size	4Mbit
MAC address table	16K
Power Supply	
Input power supply	Power input voltage: 12~48VDC Support DC dual power supply redundancy and non-polarity;
Access terminal block	4-pin 7.62mm pitch terminal blocks
Power Consumption	
Model II	No-load: 6.9W@24VDC Full-load: 7.8W@24VDC
Working Environment	
Working temperature	-40~75℃
Storage temperature	-40~85℃

Working 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.