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

Industrial Ethernet Switch

Device Networking Product

3onedata

Embedded Module

Industrial Wireless Product
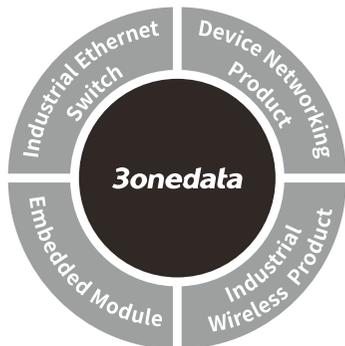
3onedata Co., Ltd.

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 whether the package and accessories are intact while using the switch for the first time.

1. Industrial Ethernet switch
2. Certification
3. Quick installation guide
4. Warranty card
5. DIN-Rail mounting attachment
6. CD

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. Models as follows:

Model I. IES618-4D(RS-232) (8 100M Copper Ports + 4 RS-232 Interfaces)

Model II. IES618-2F-4D(RS-232) (6 100M Copper Ports + 2 100M Fiber Ports + 4 RS-232 Interfaces)

Model III. IES618-4F-4D(RS-232) (4 100M Copper Ports + 4 100M Fiber Ports + 4 RS-232 Interfaces)

Model IV. IES618-4DI(RS-485) (8 100M Copper Ports + 4 RS-485 Interfaces)

Model V. IES618-2F-4DI(RS-485) (6 100M Copper Ports + 2 100M Fiber Ports + 4 RS-485 Interfaces)

Model VI. IES618-4F-4DI(RS-485) (4100M Copper Ports + 4100M Fiber Ports + 4 RS-485 Interfaces)

【Panel Design】

➢ **Rear view, bottom view and top view**
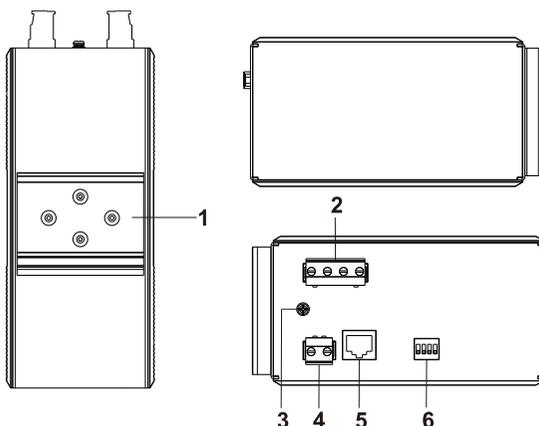
➢ **Front view**
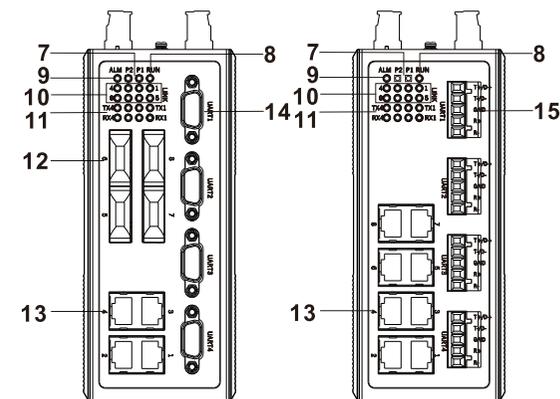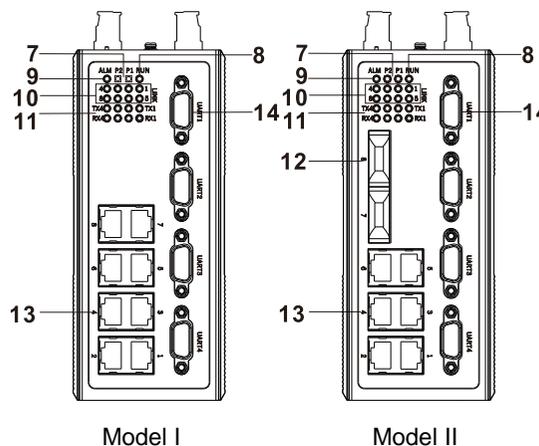
Model I   Model II

Model III   Model IV
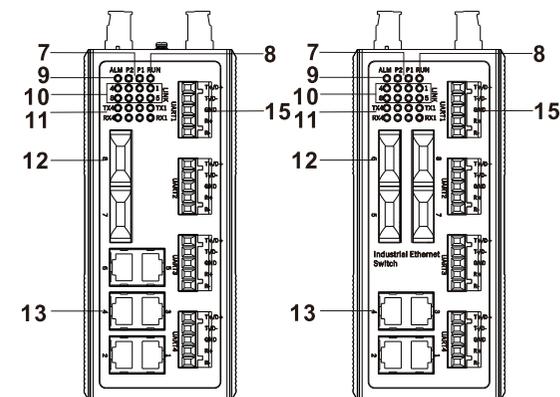
Model V   Model VI

1. DIN-Rail mounting kit
2. Power supply input terminal blocks
3. Grounding screw
4. Relay alarm output terminal block
5. Console port
6. DIP switch
7. Power supply input status indicator P1/P2
8. Device running status indicator RUN
9. Relay alarm status indicator ALM
10. 100M copper port indicator (1~8)
11. Serial port indicator (1~4)
12. 100M fiber port
13. 100M copper port
14. RS-232 interface

15. RS-485 interface

【Mounting Dimension】

Unit: mm

130
177.5
160
70
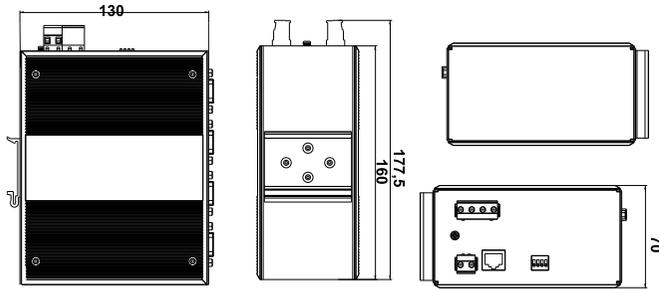
⚠ **Attention before mounting:**

- 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.

【DIN-Rail Mounting】

For convenient usage in industrial environments, the product adopts 35mm DIN-Rail mounting, mounting steps as below:
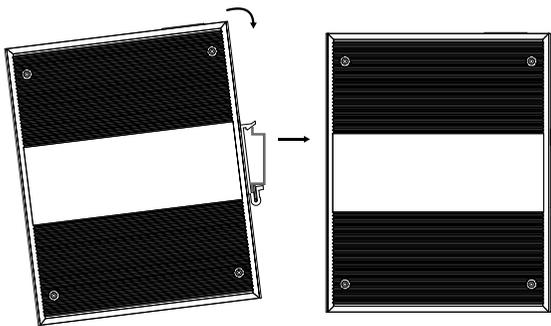
Step 1   Check whether the DIN-Rail mounting kit that comes with the device is installed firmly.

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, and then mounting ends.

【Disassembling DIN-Rail】

Step 1   Power off the device.

Step 2   After lift 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.

⚠ **Attention before powering on:**

- Power ON operation: first connect power line to the connection terminal of device power supply, and then power on.
- Power OFF operation: first unpin the power plug, and then remove the power line, please note the operation order above.

【Power Supply Connection】

V1+ V1- V2+ V2-
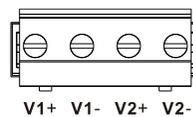
This series provide 4-pin 7.62mm pitch input terminal blocks, and two independent DC power supply systems of P1 and P2. It could be used individually or connecting to two independent DC power supply systems externally. The power supply supports non-polarity and anti-reverse connection, which could still work after reverse connection.

Input voltage of power supply: 12VDC～48VDC

【Relay Connection】
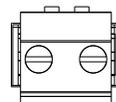
This series provide 2-pin 7.62mm pitch input terminal blocks. Relay terminal blocks are a pair of normally open contacts in the alarm relay of the device. They are open circuit in the status of normal no alarm, and closed when any warning message occurs. For example: they are closed and send out alarm when power off. The product supports 1 relay warning message output, and warning messages output of the DC power supply or network abnormal alarm output. It can be connected to alarm indicator, alarm buzzer, or other switching value collecting devices for timely warning operating staffs when the warning message occurs.

【DIP Switch Settings】

The products provide 4 pins DIP switch for function settings, where "ON" is the enable valid terminal. Please power off and power on after changing the DIP switch status.

DIP switches definitions as follows:

DIP	Definition	Operation
1	Reserved	-
2	Upgrade	Set the DIP switch to ON, the device can conduct program upgrade, set it back when upgrade is finished
3	Restore factory defaults	Set the DIP switch to ON, power on the device again and it will restore factory defaults, and then set it back.
4	Reserved	-

【Serial Port Connection】

➢ **RS-232**

1 5
6 9
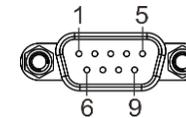
This device provides RS-232 ports, whose interface type is DB9 male head. Its pin definitions display as the table below.

PIN	1	2	3	4	5	6	7	8	9
RS-232	DCD	RxD	TxD	DTR	GND	DSR	RTS	CTS	-

➢ **RS-485/422**

T+/D+ T-/D- GND R+ R-
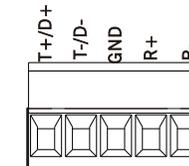
This series Model IV, Model V and Model VI provide 5-pin RS-485/422 serial port of industrial terminal. Its pin definitions display as the table below.

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

【Console Port Connection】

The device provides 1 RS232-based procedure debugging port, and can manage the CLI command line of the device after connected to PC. The interface adopts RJ45 port, the RJ45 pins definition as follows:

Pin No.	2	3	5
Definition	TXD	RXD	GND

【Checking LED Indicator】

The function of each LED is described in the table as below:

LED	Status	Description
P1/P2	ON	Power supply is connected and running normally
	OFF	Power supply is disconnected and running abnormally.
ALM	ON	Power supply and port link alarm
	OFF	Power supply and port link without alarm
RUN	ON	The device is powering on or abnormal
	OFF	The device is powered off or abnormal
	Blinking	Blink once per second, the device is running well.
Link/Act (1-8)	ON	Ethernet port has built valid connection
	Blinking	Ethernet port is in an active network status
	OFF	Ethernet port has not built valid connection
TX (1-4)	Blinking	Serial port is sending data
	OFF	Serial port is not sending data
RX (1-4)	Blinking	Serial port is receiving data
	OFF	Serial port is not receiving data or serial port is 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.
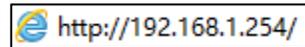
Step 3 Enter device's username and password in the login window as shown below.

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 username and password of the device is "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	10/100Base-T(X) RJ45, automatic flow control, full/half duplex mode, MDI/MDI-X autotunning
100M fiber port	100 Base-FX
Serial port	Rs-232 DB9 interface or RS-485/422 terminal
Console port	CLI command management port (RS-232), RJ45
Alarm interface	2-pin 7.62mm pitch terminal blocks, support 1 channel relay alarm information output, current loading capability of 1A@24VDC or 0.5A@120VAC
Indicator	Running indicator, interface indicator, power supply indicator and alarm indicator
Exchange attributes	
Backplane bandwidth	2G
Packet buffer size	1Mbit
MAC table size	2K
Power supply	
Input power supply	Input voltage of power supply: 12~48VDC Support DC dual power supply redundancy, anti-reverse connection
Access terminal	4-pin 7.62mm pitch terminal blocks
Consumption	
Model I	No-load: 4.80W@24VDC Full-load: 6.90W@24VDC

Model II	No-load: 4.80W@24VDC
	Full-load: 6.90W@24VDC
Model III	No-load: 4.75W@24VDC
	Full-load: 6.14W@24VDC
Model IV	No-load: 1.80W@24VDC
	Full-load: 3.90W@24VDC
Model V	No-load: 3.58W@24VDC
	Full-load: 5.35W@24VDC
Model VI	No-load: 4.80W@24VDC
	Full-load: 6.90W@24VDC
Environmental Limits	
Working temperature	-40℃~75℃
Storage temperature	-40℃~85℃
Working humidity	5%~95% (no condensation)
Protection grade	IP40 (metal shell)