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Make network communication more reliable

NP304T/NP308T/NP314T/NP318T Series Serial Device Server Quick Installation Guide

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【Package Checklist】

Please check whether the package and accessories are intact while using the serial device server for the first time.

1. Serial Device Server
2. Quick installation guide
3. Straight-through cable
4. Hanger
5. Power adapter
6. CD
7. Warranty card
8. Qualify certificate
9. Two pairs of food pads
10. 3IN1 RJ45 serial port to DB9-Male conversion line (only for 3IN1 product)

If any of these items are damaged or lost, please contact our company or dealers, we will solve it ASAP.

【Product Overview】

The product is managed industrial serial device server.

Module as follow:

Model I. NP304T-4D(3IN1)-RJ45:
4 RS-232/485/422 + 1 10/100Base-T(X)

Model II. NP314T-4D(3IN1)-RJ45:
4 RS-232/485/422 + 2 10/100Base-T(X)

Model III. NP308T-8D(3IN1)-RJ45:
8 RS-232/485/422 + 1 10/100Base-T(X)

Model IV. NP318T-8D(3IN1)-RJ45:
8 RS-232/485/422 + 2 10/100Base-T(X)

Model V. NP304T-4D(RS-232):
4 RS-232 + 1 10/100Base-T(X)

Model VI. NP314T-4D(RS-232):
4 RS-232 + 2 10/100Base-T(X)

Model VII. NP308T-8D(RS-232):
8 RS-232 + 1 10/100Base-T(X)

Model VIII. NP318T-8D(RS-232):
8 RS-232 + 2 10/100Base-T(X)

Model IX. NP304T-4DI (RS485):
4 RS-485/422 + 1 10/100Base-T(X)

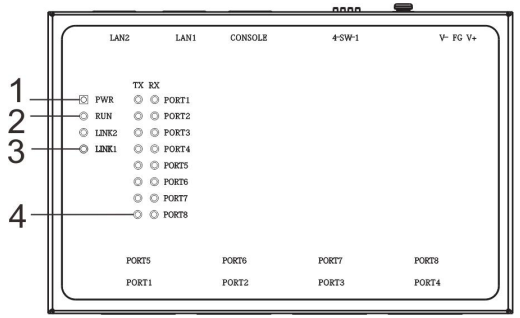
Model X. NP314T-4DI (RS485):
4 RS-485/422 + 2 10/100Base-T(X)

Model XI. NP308T-8DI (RS-485):
8 RS-485/422 + 1 10/100Base-T(X)

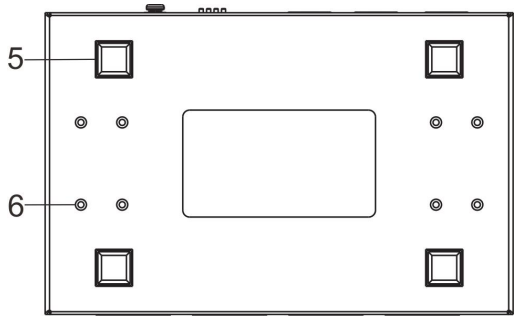
Model XII. NP318T-8DI (RS-485):
8 RS-485/422 + 2 10/100Base-T(X)

【Panel Design】

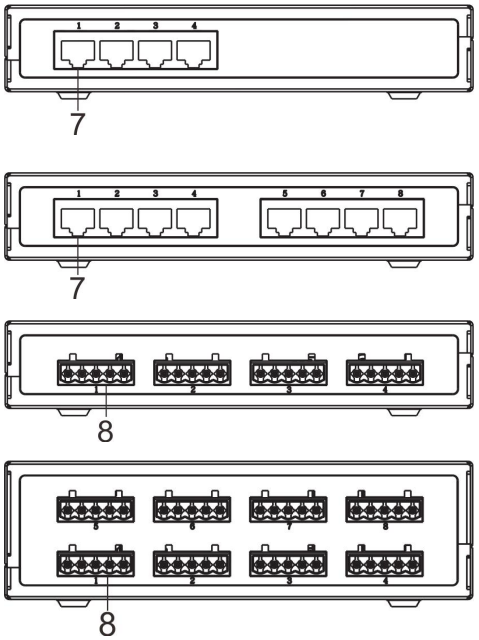
➢ **Top view**



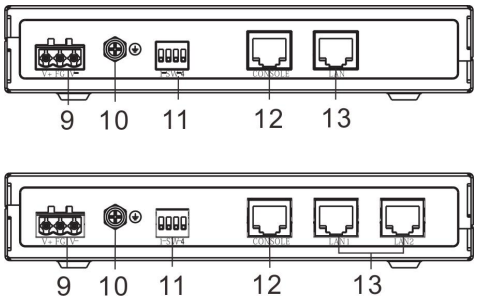
➢ **Bottom view**



➢ **Front view**



➢ **Rear view**



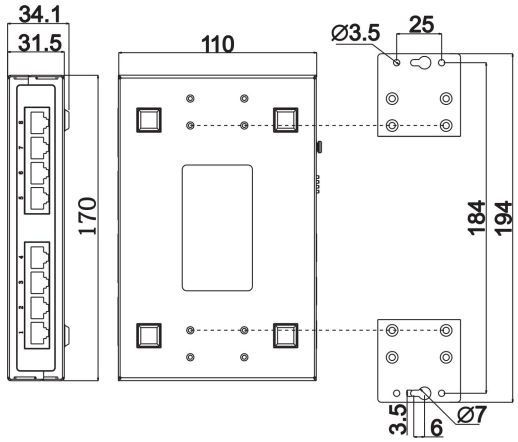
1. Power indicator
2. Running status indicator

3. Ethernet port Link/ACT indicators
4. Serial port transmission and receiving data indicators
5. Foot pad
6. Locating holes for wall mounting
7. RS-232 or 3IN1 serial ports
8. RS-485/422 serial ports
9. Power input terminal block
10. Grounding screw
11. DIP switch
12. Console port
13. 10/100Base-T(X) Ethernet ports

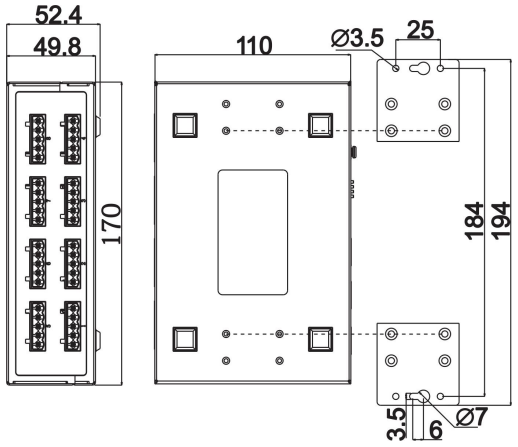
【Mounting Dimension】

Unit: mm

➢ **Model I ~ Model X**



➢ **Model XI, Model XII**



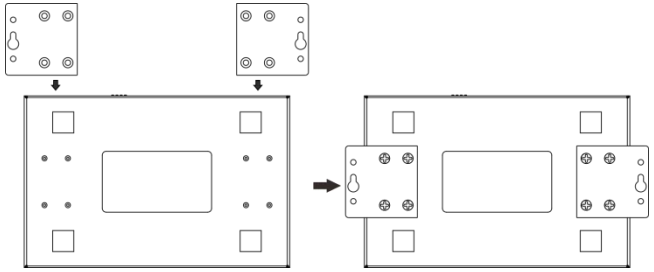
Note Before Mounting:

- 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.

【Wall Mounting】

➢ **Mounting the Device**

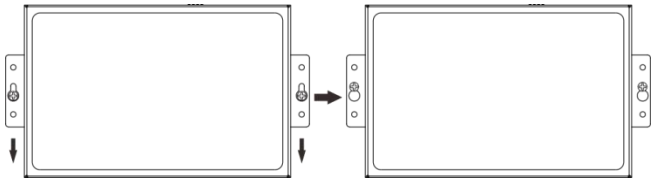
Step 1 Adopt M3 screw to install the left/right mounting board on the device backboard.



Step 2 On the wall of device mounting, place the device on the wall for reference or reference the mounting dimension to mark the four screws position.

Step 3 Nail two M4 screws on the wall and keep 2mm interspace reserved.

Step 4 Hang the device on two screws and slide downward, then tighten the screw to enhance stability, mounting ends.



➢ **Device Disassembling**

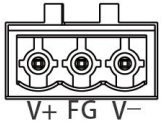
Step 1 Device power off.

Step 2 Unscrew the screw on the wall about 2mm.

Step 3 Lift the device upward slightly, take out the device, disassembling ends.

【Power Supply Connection】

➢ **DC power supply**



The serial device server provides 3 industrial terminal blocks, in which V+ and V- are DC input and FG is ground input. The power supply has nonpolarity and anti-reverse functions. Power supply range: 12～48VDC.

Note:

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

【Console Port Connection】

The device provides 1 channel procedure debugging port based on RS-232 serial port. The interface adopts RJ45 port. The PIN definition as follows.

PIN	2	3	5
PIN definition	TXD	RXD	GND

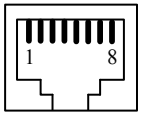
【DIP Switch Setting】

Provide 4-bit DIP switch for function setting, where "ON" is enable valid terminal. Please power off and power on after changing the status of DIP switch. DIP switch definition as follow:

DIP	Decscription	Operation
1	Reserved	—
2	Restore factory setting	Set the switch to ON, power on again, it restores to factory defaults, set the switch back.
3	Reserved	—
4	Reserved	—

【Serial Port Connection】

- **RS232 and 3IN1 RJ45 interface**

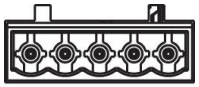


Model I, Model II, Model III, and Model IV provide 3IN1 serial port that supports RS-232/485/422. The interface is RJ45; Model V, Model VI, Model VII, and Model VIII support RS-232. The interface is RJ45.

The RJ45 PIN definitions are as follows.

PIN	1	2	3	4	5	6	7	8
RS-232	DSR	RTS	GND	TXD	RXD	DCD	CTS	DTR
RS-485	—	—	GND	—	—	D-	—	D+
RS-422	—	R-	GND	R+	—	T-	—	T+

- **RS-485/422 Port**



Model IX, Model X, Model XI, and Model XII provide 5-pin 5.08mm pitch industrial terminal block. The PIN definitions are as follows.

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

【Checking LED Indicator】

The device provides 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
PWR	ON	The power connection is working normally.
	OFF	The power is not connected or is not working normally.
RUN	ON	The system is not running normally.
	Blinking	The system is running normally.
	OFF	The system is not running or running abnormally.
LINK (1-2)	ON	The LAN interface has established an active network connection.
	Blinking	The LAN interface is in an active network state.
	OFF	The LAN interface has not established an active network connection.
TX Port(1-4/8)	OFF	No data or abnormal data is being received through serial port.
	Blinking	Serial port is receiving data.
RX Port(1-4/8)	OFF	No data or abnormal data is being transmitted through serial port.
	Blinking	Serial port is transmitting data.

【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:

Note

Single-port and double-port products have different configuration. Please note the single and double port identifier in front of the steps.

- Single-port product: Model I, Model III, Model V, Model VII, Model IX and Model XI.
- Double-port product: Model II, Model IV, Model VI, Model VIII, Model X and Model XII.

Step 1 (Single port) 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 (Double port) Configure the IP addresses of computer and the device to the same network segment(The network segment of Network Port 1 is 1, and the network segment of network port 2 is 8), and the network between them can be mutually accessed.

Step 3 (Single port)Enter device's IP address in the address bar of the computer browser.

Port1：http://192.168.1.254/

Step 4 (Double port)Enter device's IP address in the address bar of the computer browser.

Port1：http://192.168.1.254/

Port 2：http://192.168.8.254/

Step 5 Enter device's username and password in the login window as shown below.

Step 6 Click "OK" button to login to the WEB interface of the device.

Note:

- The default IP address of the device Network port 1 is “192.168.1.254”, the default IP address of the device Network port 2 is “192.168.8.254”,
- 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) self-adapting RJ45 port
Serial Port	3IN1: RJ45 interface RS-232: RJ45 interface RS-485/422 terminal block
Console port	RJ45
Indicator	Power indicator, Running status indicator, Ethernet port Link/Act indicator, Serial port transmission and receiving data indicator
Power Supply	
Input power supply	12~48VDC
Access terminal	3-pin terminal block
Power Consumption	
NP304T-4D(RS-232) NP304T-4D(3IN1)-RJ45 NP314T-4D(3IN1)-RJ45 NP314T-4D(RS-232)	No-load: 2.16W@12VDC Full-load: 3.00W@12VDC
NP308T-8D(RS-232) NP308T-8D(3IN1)-RJ45 NP318T-8D(3IN1)-RJ45 NP318T-8D(RS-232)	No-load: 1.8W@12VDC Full-load: 3.9W@12VDC
NP304T-4DI(RS-485) NP314T-4DI(RS-485)	No-load: 2.94W@12VDC Full-load: 2.94W@12VDC
NP308T-8DI(RS-485) NP318T-8DI(RS-485)	No-load: 3.16W@12VDC Full-load: 3.72W@12VDC
Working Environment	
NP304T-4D(3IN1)-RJ45 NP314T-4D(3IN1)-RJ45 NP304T-4D(RS-232) NP314T-4D(RS-232) NP308T-8D(3IN1)-RJ45 NP318T-8D(3IN1)-RJ45 NP308T-8D(RS-232) NP318T-8D(3IN1)-RJ45	Working temperature: -40℃～75℃ Storage temperature: -40℃～85℃
NP304T-4DI(RS-485) NP314T-4DI(RS-485)	Working temperature: -40℃～75℃ Storage temperature: -40℃～75℃
NP308T-8DI(RS-485) NP318T-8DI(RS-485)	Working temperature: -40℃～70℃ Working temperature: -40℃～70℃
Working humidity	5%~95% (no condensation)
Physical Characteristics	
Protection grade	IP30
Size (L×W×H)	170mm×110mm×31.50mm/ 170mm×110mm×49.80mm
Weight	NP308T-8DI (RS-485)：740g NP318T-8DI (RS-485)：740g Others：590g
Mounting	Wall Mounting or desktop mounting