



Datasheet



## NP311

### 1 port RS-232/485/422 to Ethernet Serial Server(10M)

#### Introduction:

NP311 is a serial device server which can connect with network fast. it provides one RS-232/485/422 (RS-232: DB9M; RS-484/422: 4 bits terminal block) and 1 10Base-T Ethernet port, it can manage the disperse serial device or host computer by network, easily and convenience. setting or software upgrade by serial program group in apply, support TCP, UDP, ARP, ICM and DHCP protocol, support Windows Native COM and auto-connect function once the network intermit.

In addition, NP311 provide the management collocate tools that based Windows flat roof. it can lead the user manage and configure facility step by step, all of the setting can be done by network or serial. Support pass gateway and router, easily for user to set IP address, Server and Client mode, size of data and so on, Can realize the serial device connect with network by simply setting.

Its outside design support DIN-Rail and Wall mounting. apply to project easily.

#### Packing List:

NP311 is shipped with following items.

1. NP311 (plus terminal block) × 1
2. User manual × 1
3. Quick Installation Guide × 1
4. Straight network cable × 1
5. Software CD-ROM × 1
6. 9VDC power adapter × 1
7. Product Warranty booklet × 1

#### Optional accessories:

- DIN-Rail Mounting Kit (35mm) × 1

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### Features:

1. 3-in-1 RS-232/RS-485/RS-422 serial interface
2. Support 10M Ethernet
3. Support 300bps-115.2Kbps
4. Support TCP, UDP, ARP, ICMP and DHCP protocol
5. Support across gateway, router communication
6. Support standard TCP/IP SOCKET
7. Support Virtual serial driver access and auto connect after the network disconnect
8. Provide bath installation Windows configure tool
9. Choice of configuration methods: Windows, TELNET
10. Support DIN-Rail or wall mounting installation

### Pinout Configuration:

#### Ethernet, Power



Device connected to Ethernet: Red LED flash

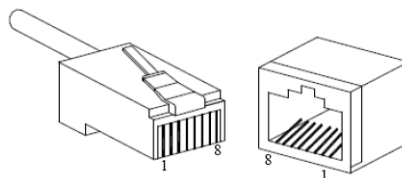
Ethernet port has data transfer: Green LED flash

#### Power:

**DC-IN:** 9VDC input

#### 10Base-T Ethernet port:

The 10Base-T ports located on NP311 front panel. The pin of RJ45 port display as below. Connect by UTP or STP. The connect distance is no more than 100m. 100Mbps is used 100Ω of UTP , 10Mbps is used 100Ω of UTP 3,4,5



RJ45 port support automatic MDI/MDI-X operation. can connect the PC, Server, Converter and HUB by straight-through cable wiring . Pin 1, 2, 3, 6 Corresponding connection in MDI. 1→3,

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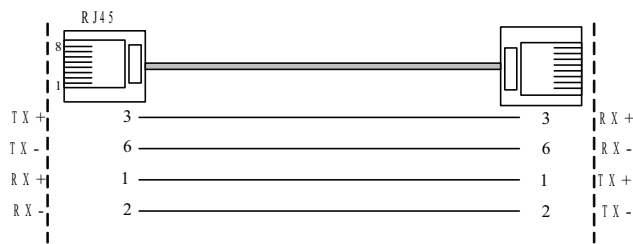
### Quality link connections

2→6, 3→1, 6→2 are used as cross wiring in the MDI-X port of Converter and HUB. 10Base-T are used in MDI/MDI-X, the define of Pin in the table as below.

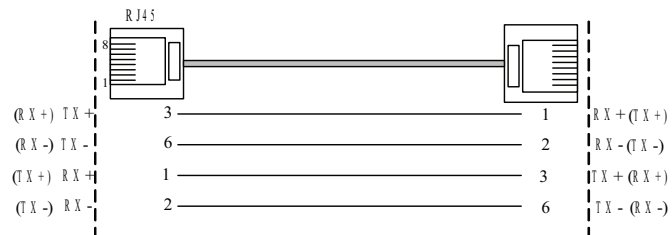
pin	MDI signal	MDI-X signal
1	TX+	RX+
2	TX-	RX-
3	RX+	TX+
6	RX-	TX-
4, 5, 7, 8	—	—

**Note:** "TX±" transmit data±, "RX±" receive data±, "—"not use

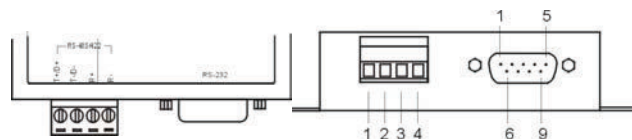
MDI(Straight-through cable):



MDI-X (Cross-over cable)



### RS-232/485/422 Port



## Quality link connections

### RS-485/422 ( 4 bit terminal block)

- 1 T+/Data+    2 T-/Data-
- 3 R+            4 R-

### RS-232 , DB9M (male, pin)

- 1 DCD    2 RXD    3 TXD    4 DTR
- 5 GND    6 DSR    7 RTS    8 CTS

### LED indications:

**Electrify input:** Status1 and Status2 blinking 3times

**Main mode undiscovers target facility:** Status2 blinking, 1 /sec

**Data transmit:** Status2 off

**No data transmit:** Status2 on

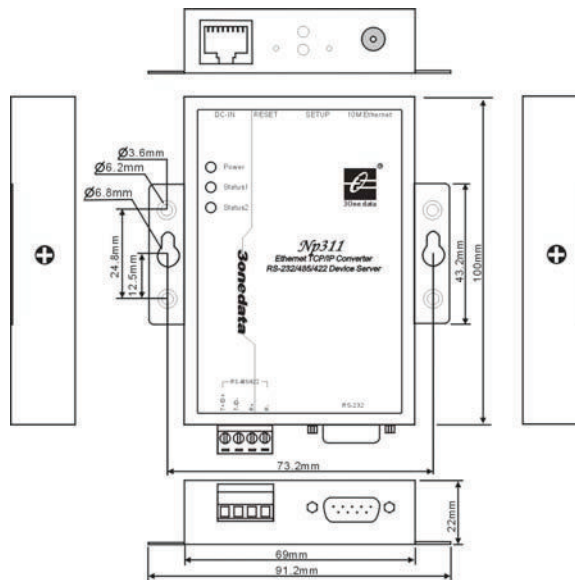
**Setting error:** Status1 blinking, 1/sec

**data buffer full:** Status1 on

### Installation:

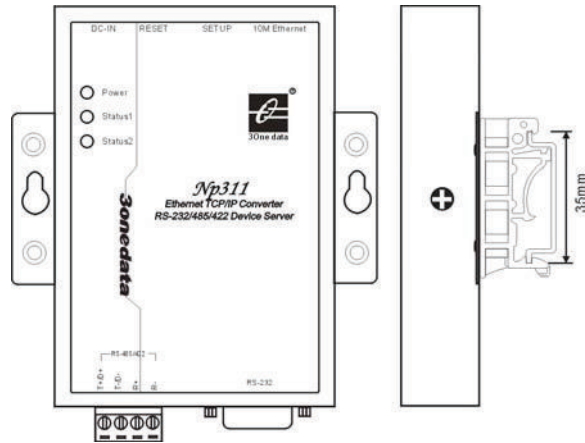
NP311 provides DIN-rail and wall mounting two types of installation.

#### Wall mounting installation



Quality link connections

### DIN-Rail Installation



### Specifications:

#### Ethernet

Standard:10Base-T

Speed:10M

Working: TCP Server, TCP Client, UDP and Real COM driver

Memory: Most 32Kbyte

Transmission: 100m

Electromagnetism isolate: 1KV

Connector: RJ45

#### Serial

Standard: RS-232/RS-485/RS-422

Signals: RS-232:DCD,RXD,TXD,DTR,GND,DSR,RTS,CTS

RS-485:Data+,Data-,GND

RS-422:TXD+,TXD-,RXD+,RXD-,GND

Working mode: Asynchronous format, point to point, 2 wires half duplex, 4 wires full duplex

Parity: None, Even, Odd, Space, Mark

Data bits: 7bit, 8bit

Baud rate: 300bps ~115.2Kbps

Flow control: RTS/CTS

Direction control: RS485 side adopt ADDC technology, auto text and control data transfer direction

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### Quality link connections

Loading: RS-485/422 side support 32 nodes (customize 128 nodes)  
loopback

Transmission: RS-485/422 side 1200M,  
RS-232 port 15M

Interface protection: 1500W surge protection,  
15KV ESD protection

### Software

Network protocols: Support TCP, UDP, ARP, ICMP and DHCP

Driver support: Windows Real COM driver

(WindowsNT/2000,WindowsXP/2003)

Configuration options: SOCKET, Windows

### Power

Power input: 9VDC

Consumption: <1W

### Environment

Working temperature:-20°C ~60°C (-4F~140F)

Storage temperature:-25°C ~85°C (-13F~185F)

Humidity: Relative humidity 5% to 95%

### Appearance

Color: Black

L×W×H: 100mm×69mm×22mm

Material: Iron (Shell)

Weight: 240g

**Warranty: 5 years**

### Certifications:



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