



# NP316 series

## Quick Installation Guide

### 16-port RS-232/485/422 to Ethernet Serial Server(10/100M)

#### Introduction:

NP316 series can conveniently connect up to 16 serial devices to an Ethernet, allowing you to network your existing serial devices with only basic configuration. With NP316 series, you can both centralize the management of your serial devices, and distribute management hosts over the network.

NP316 series can be used to connect different devices for remote management, each serial port operates independently to provide maximum versatility, each port can be operate in Driver, TCP Server, and TCP Client mode independently.

#### Packing List:

NP316 series are shipped with following items.

1. NP316 series server × 1
2. User manual × 1
3. Quick Installation Guide × 1
4. Straight network cable × 1
5. 220V power line × 1
6. Software CD-ROM × 1
7. Product Warranty booklet × 1

#### Features:

1. Adopt 32 bit ARM processor, 125 DMIPS manage ability
2. 16 serial ports, with support for RS-232/RS-485/RS-422
3. Support 10/100M Ethernet
4. Support 300bps-460.8Kbps
5. Support TCP, UDP, ARP, ICMP, HTTP, TELNET and DHCP protocol
6. Support across gateway, router communication
7. Support standard TCP/IP SOCKET

8. Support Virtual serial driver access and auto connect after the network disconnect
9. Choice of configuration methods: Windows, TELNET and WEB

## Pinout Configuration:

<b>NP316</b>	16-port RS232 to Ethernet
<b>NP316-8M</b>	(8-port RS232+8-port RS485/422) to Ethernet
<b>NP316-16M</b>	16-port RS485/422 to Ethernet
<b>NP316E</b>	16-port RS232 to 2 Ethernet ports
<b>NP316E-2AC</b>	16-port RS232 to 2 Ethernet ports, dual power

## Front panel

### NP316, NP316-8M, NP316-16M:



### NP316E, NP316E-2AC:



**ON/OFF:** Power supply switch

**TX:** Serial data transfer

**RX:** Serial data receive

**Power(1,2):** Power(1,2) supply indicator

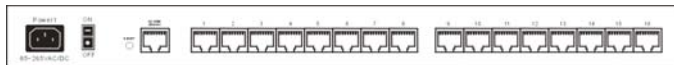
**Link/ACT(1,2):** Bright when connected to network

**10/100M:** ON is 100M, OFF is 10M

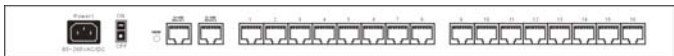
**Printer:** No use (hold)

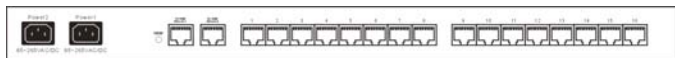
## Rear panel

### NP316, NP316-8M, NP316-16M:



### NP316E, NP316E-2AC:



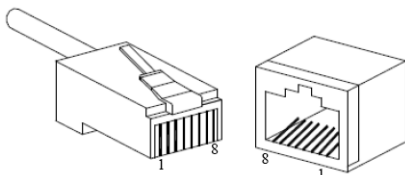
**NP316E-2AC:**

**85~265VDC/AC:** AC/DC 85~265V power supply input

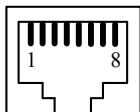
**Printer, Console:** No use (hold)

**10/100Base-T(x) Ethernet port:**

The 10/100BaseT(X) ports located on NP308 series 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 100Ωof UTP , 10Mbps is used 100Ωof UTP 3,4,5



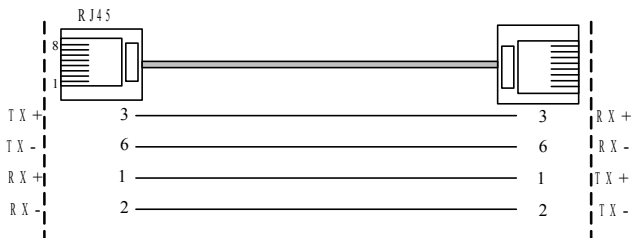
RJ45 port support automatic MDI/MDI-X operation. can connect the PC, Server, Converter and HUB by straight-through cable wiring . Pin 1, 2, 3, 6 Corresponding connection in MDI. 1→3, 2→6, 3→1, 6→2 are used as cross wiring in the MDI-X port of Converter and HUB. 10Base-T are used in MDI/MDI-X, the define of Pin in the table as below.



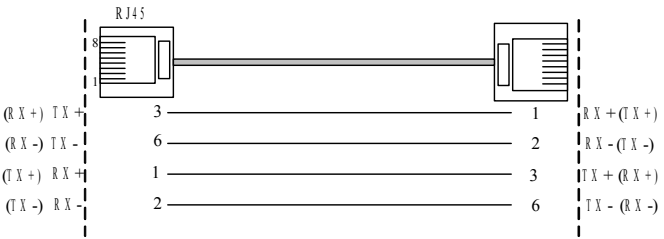
pin	MDI signal	MDI-X signal
1	TX+	RX+
2	TX-	RX-
3	RX+	TX+
6	RX-	TX-
4, 5, 7, 8	—	—

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

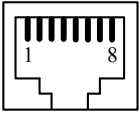
MDI(Straight-through cable):



## MDI-X (Cross-over cable)

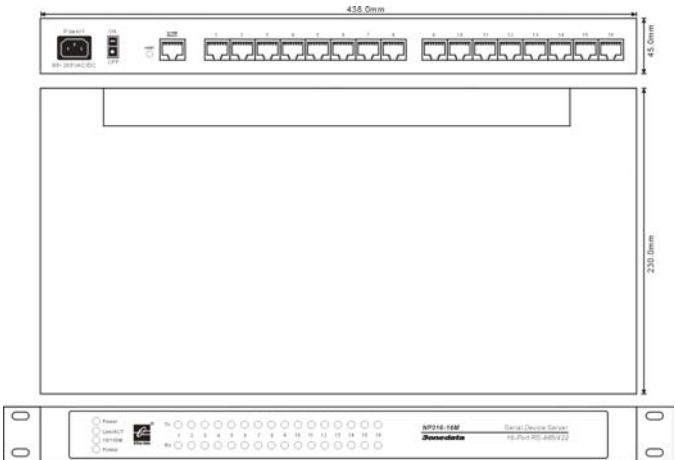


## RS-232/485/422 (RJ45):



No.	RS-232	RS-485	RS-422
1	TXD	Data+	RXD+
2	RXD		TXD+
3	RTS	Data-	RXD-
4	CTS		TXD-
5	DSR		short-circuit 5,6 (5 FULL,6 GND)
6	GND	GND	
7	DTR		
8	DCD		

## Dimension:



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## Specifications:

### Ethernet

Number of ports:1(NP316E, NP316E-2AC:2)

Standard:10/100Base-T(X)

Speed:10/100M auto-sensing

Working mode: half /full duplex

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

Number of ports: 16

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

RS-485:Data+,Data-,GND

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

Parity: None, Even, Odd, Space, Mark

Data bits: 5bit, 6bit, 7bit, 8bit

Stop bits: 1, 1.5, 2

Baud rate: 300bps ~ 460.8Kbps

Flow control: RTS/CTS or XON/XOFF

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

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, HTTP,  
TELNET and DHCP

Driver support: Windows Real COM driver  
(Windows NT/2000, Windows XP/2003)

Configuration options: Windows, TELNET and WEB

## Power

Power input: AC/DC 85~265V (NP316E-2AC: dual power supply)

Consumption: <2W

## Environment

Working temperature:-20°C ~60°C

Storage temperature:-25°C ~85°C

Humidity: Relative humidity 5% to 95%

## Appearance

Color: Black

L×W×H: 438.0mm×230.0mm×45.0mm

Material: Iron (Shell)

Weight: 460g

**Warranty: 5 years**

## Certifications:



# **3onedata**

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