NPort **5400 Series**

4-port Rackmount Serial Device Servers

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Features

> **Easy IP address configuration with LCM (Liquid Crystal Module)**
> **Auto-detecting 10/100 Mbps Ethernet**
> **4 ports with selectable RS-232, RS-422, and RS-485 operation**
> **15 KV ESD surge protection for all serial signals**
> **TCP Server, TCP Client, UDP, and Real COM operation modes**
> **Configuration by web console, Telnet console, and more**
> **Supports SNMP MIB-II for network management**
> **2 KV isolation protection for NPort 5430I**

: Internet Readiness for up to Four Serial Devices

NPort 5400 device servers can conveniently and transparently connect up to four serial devices to an Ethernet, allowing you to network your existing serial devices with only basic configuration. Data transmission between the serial and Ethernet interfaces is bi-directional. By using NPort device servers, you not only protect your current hardware investment, but also allow for future network expansion. You can both centralize management of your serial devices and distribute management hosts over the network.
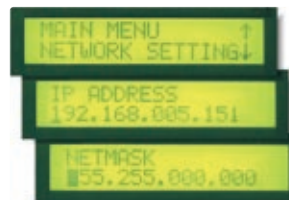
: Independent Operation Mode for Each Serial Port

NPort 5400 device servers can be used to connect different devices for remote data polling, event handling, or data multicasting over the TCP/IP network. Each serial port on the NPort 5400 device server operates independently, allowing maximum versatility. For example, port 1 can operate in Driver mode, port 2 in TCP Server mode, and ports 3 and 4 in TCP client mode.

: User-Friendly LCD Control Panel for Easy Installation

A control panel is provided on NPort 5400 device servers, with four buttons for inputting data, configuration, and selecting the operation mode. The control panel displays the server name, serial number, and IP address, and can be used to enter or modify parameters such as IP address, netmask, or gateway.

: Redundant DC Power Inputs

NPort 5400 device servers supports redundant power sources and provides both a DC terminal block input and a DC power jack input. The two power inputs not only provide power redundancy, but also allow greater flexibility for use with different applications.
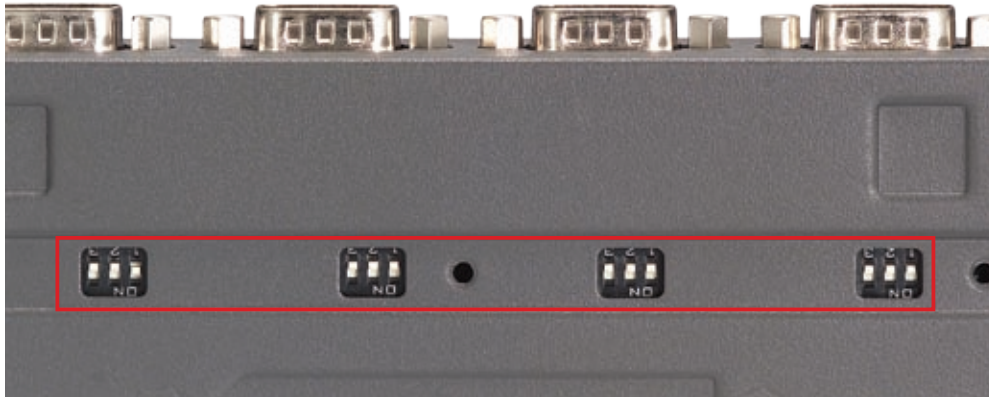
MOXA®

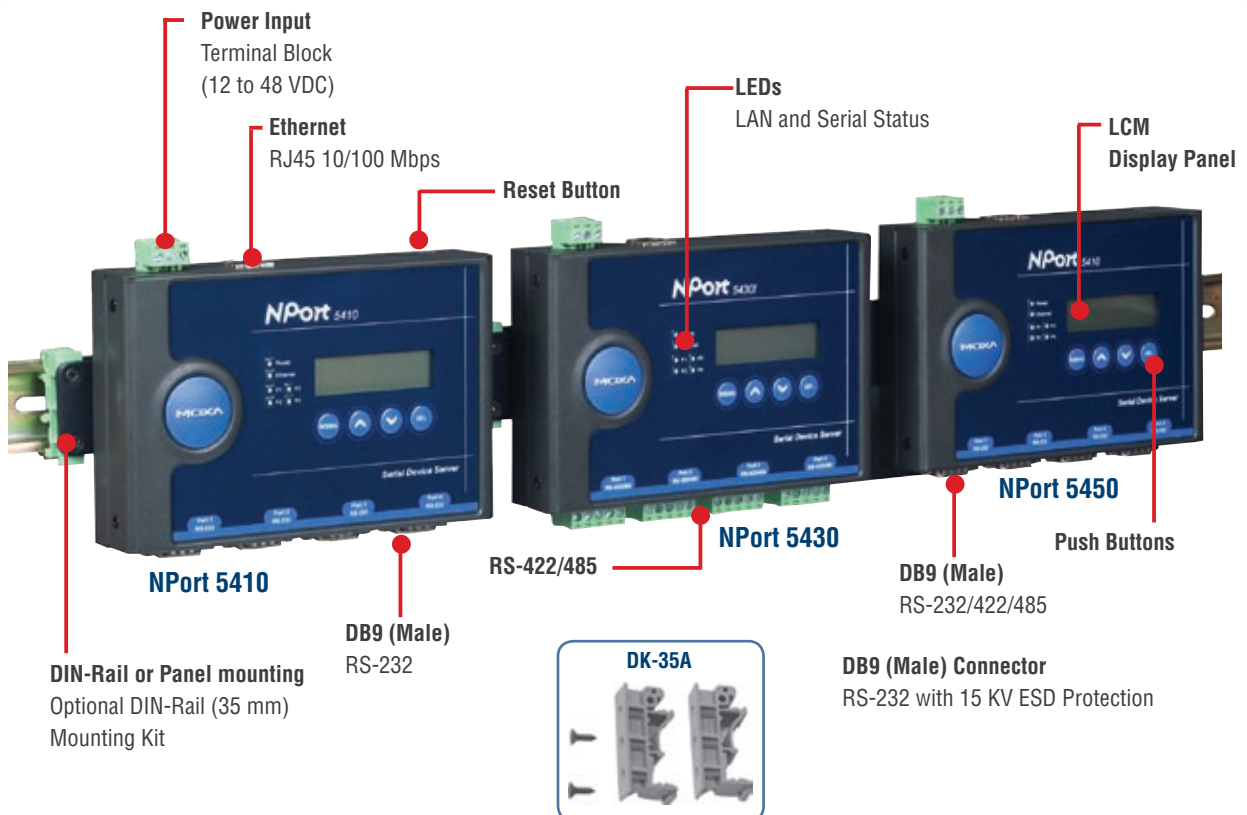## : Adjustable Termination and Pull High/Low Resistors

In some critical environments, termination resistors may be needed to prevent the reflection of serial signals. When using termination resistors, it is also important to set the pull high/low resistors correctly so that the electrical signal is not corrupted.

Since no set of resistor values is universally compatible for all environments, NPort 5400 device servers allow manual adjustment of termination and pull high/low resistor values for each serial port, using DIP switches.

DIP Switches on Rear Panel

NPort 5410, 5430, 5450

Power Input
Terminal Block
(12 to 48 VDC)

Ethernet
RJ45 10/100 Mbps

Reset Button

LEDs
LAN and Serial Status

LCM
Display Panel

NPort 5450

Push Buttons

NPort 5430

RS-422/485

DB9 (Male)
RS-232/422/485

NPort 5410

DIN-Rail or Panel mounting
Optional DIN-Rail (35 mm)
Mounting Kit

DB9 (Male)
RS-232

DK-35A

DB9 (Male) Connector
RS-232 with 15 KV ESD Protection

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Serial Device Servers

: Ordering Information

NPort 5410: 4-port RS-232 serial device server

NPort 5430: 4-port RS-422/485 serial device server

NPort 5430I: NPort 5430 with 2 KV isolation

NPort 5450: 4-port RS-232/422/485 serial device server

NPort 5450I: NPort 5450 with 2 KV isolation

Optional Accessories

DK-35A: DIN-Rail Mounting Kit (35 mm)
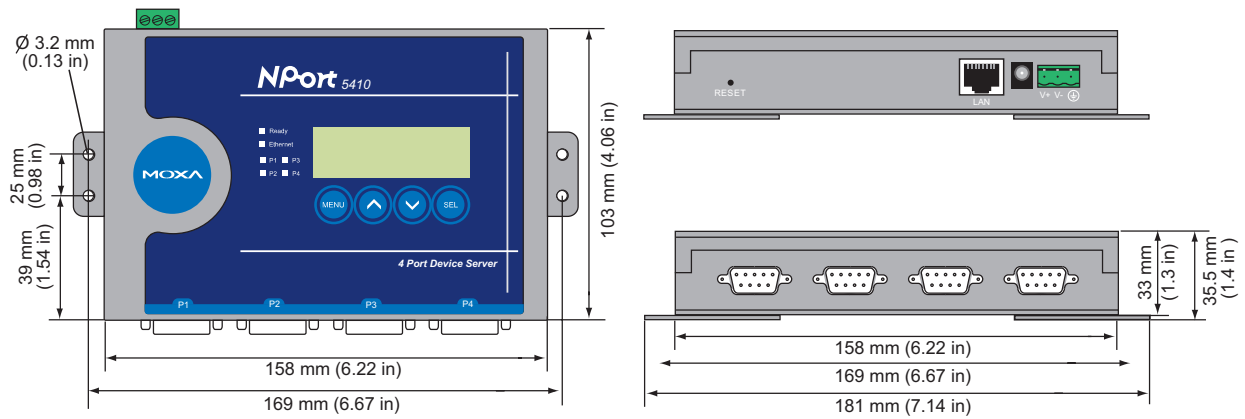
DIN-Rail Power Supply: See page 12-7

Package Checklist

• 1 NPort 5400 Device Server

• Quick Installation Guide

• NPort Document and Software CD-ROM

• Power Jack to TB Power Cable

Terminal Block: See page 12-5

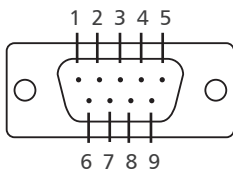**Power Adaptor:** See page 12-8

Dimensions (unit = mm)
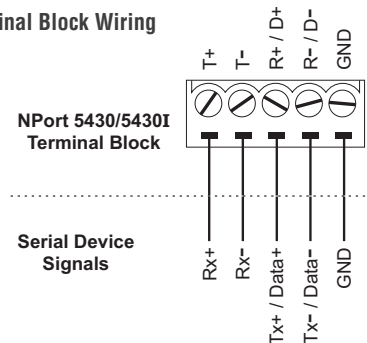

: Pin Assignment

NPort 5410 DB9 (Male) RS-232 Port

RJ45 RS-232 port

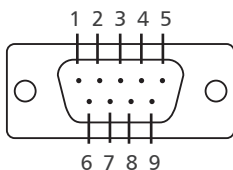| PIN	RS-232
1	DCD (in)
2	RxD (in)
3	TxD (out)
4	DTR (out)
5	GND
6	DSR (in)
7	RTS (out)
8	CTS (in)
9	–

NPort 5430/5430I Terminal Block RS-422/485 Port

RS-422/485 Terminal Block Wiring

NPort 5450/5450I DB9 (Male) RS-232/422/485 Port

DB9 (Male) RS-232/422/485 Port

PIN	RS-232	RS-422/485 (4W)	RS-485 (2W)
1	DCD	TxD-(A)	–
2	RxD	TxD+(B)	–
3	TxD	RxD+(B)	Data+(B)
4	DTR	RxD-(A)	Data-(A)
5	GND	GND	GND
6	DSR	–	–
7	RTS	–	–
8	CTS	–	–
9		–	–

⠸ Specifications

LAN
Ethernet: 10/100 Mbps, RJ45
Protection: Built-in 1.5 KV magnetic isolation

NPort 5410 Serial Interface
Interface: RS-232
No. of Ports: 4
Port Type: DB9 (male)
Signals: TxD, RxD, RTS, CTS, DTR, DSR, DCD, GND
Serial Line Protection: 15 KV ESD for all signals

NPort 5430/5430I Serial Interface
Interface: RS-422/485
No. of Ports: 4
Port Type: Terminal Block
Signals:
RS-422: Tx+, Tx-, Rx+, Rx-, GND
RS-485 (2-wire): Data+, Data-, GND
RS-485 (4-wire): Tx+, Tx-, Rx+, Rx-, GND
Serial Line Protection: 15 KV ESD for all signals
RS-485 Data Direction: ADDC™ (Automatic Data Direction Control)

NPort 5450/5450I Serial Interface
Interface: RS-232/422/485
No. of Ports: 4
Port Type: DB9 (male)
Signals:
RS-232: TxD, RxD, RTS, CTS, DTR, DSR, DCD, GND
RS-422: Tx+, Tx-, Rx+, Rx-, GND
RS-485 (2-wire): Data+, Data-, GND
RS-485 (4-wire): Tx+, Tx-, Rx+, Rx-, GND
Serial Line Protection: 15 KV ESD for all signals
RS-485 Data Direction:
ADDC™ (Automatic Data Direction Control)

Power Line Protection
4 KV burst (EFT), EN61000-4-4
2 KV surge, EN61000-4-5

Advanced Built-in Features
HMI: LCM display with four push buttons
Buzzer
Real-Time Clock
Watch Dog Timer

Serial Communication Parameters
Parity: None, Even, Odd, Space, Mark
Data Bits: 5, 6, 7, 8
Stop Bit(s): 1, 1.5, 2
Flow Control: RTS/CTS, XON/XOFF, DSR/DTR (excluding NPort 5430)
Transmission Speed: 50 bps to 921.6 Kbps

Software Features
Protocols:
ICMP, IP, TCP, UDP, DHCP, BOOTP, Telnet, DNS, SNMP, HTTP, SMTP, SNTP, Rtelnet, ARP
Utilities:
NPort Administrator for Windows 95/98/ME/NT/2000/XP/2003/Vista
OS Driver Support:
Windows 95/98/ME/NT/2000/XP/2003/x64 Real COM driver/
Linux real TTY driver/SCO Unix/SCO OpenServer 5/
UnixWare 7/UnixWare 2.1/SVR4.2/QNX
Configuration: Web console, Telnet console, or Windows utility

Power Requirements
Power Input: 12 to 48 VDC
Power Consumption:
NPort 5410: 350 mA @ 12V (max.)
NPort 5430: 360 mA @ 12V (max.)
NPort 5430I: 585 mA @ 12V (max.)

Mechanical
Material: SECC sheet metal (1 mm)
Dimensions (W × H × D):
190 × 44.5 × 478 mm (including ears)
190 × 44.5 × 440 mm (without ears)
Gross Weight:
NPort 5410: 0.5 kg (1.10 lb)
NPort 5430: 0.5 kg (1.10 lb)
NPort 5430I: 0.5 kg (1.10 lb)

Environment
Operating Temperature: 0 to 55°C (32 to 131°F), 5 to 95%RH
Storage Temperature: -20 to 70°C (-4 to 158°F), 5 to 95%RH

Regulatory Approvals
EMC: FCC Class A, CE Class A
Safety: UL, CUL, TÜV
Marine: DNV

Warranty: 5 years

MTBF
NPort 5410: 205153 hours
NPort 5430: 201699 hours
NPort 5430I: 114540 hours

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Serial Device Servers