



NPort IA Server

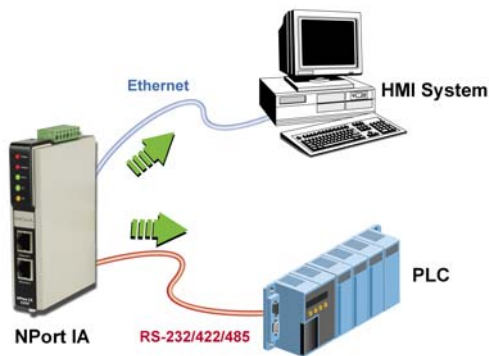
1/2-port Industrial Serial Device Servers

Features

- Make your serial devices Internet ready
- Versatile socket operating modes, including TCP Server, TCP Client, UDP, and Real Com driver
- 2- or 4-wire RS-485 with patented ADDC™ (Automatic Data Direction Control)
- Slim type, inch-wide industrial device server
- DIN-Rail or wall mountable
- Built-in Ethernet Cascading ports for easy wiring (RJ45 only)
- Redundant dual DC power inputs
- Warning by relay output and E-mail
- 10/100BaseTX (RJ45) or 100BaseFX (SC connector, Single/Multi mode)
- IP30



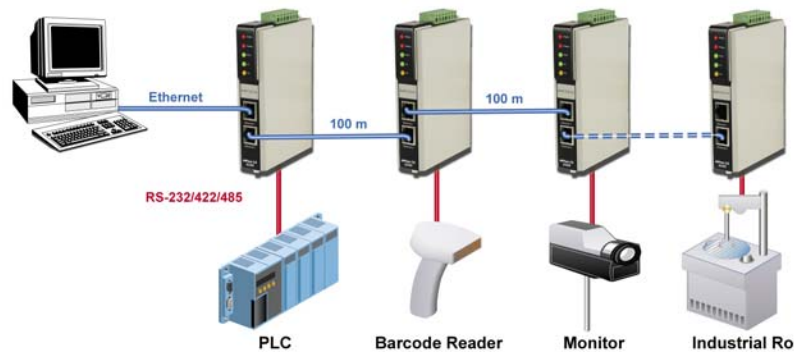
Overview



NPort IA device servers deliver easy and reliable serial-to-Ethernet connectivity for the industrial automation market. NPort IA device servers can be used to connect any serial device to an Ethernet network, and provide TCP Server, TCP Client, and UDP modes to ensure the compatibility of network software. NPort IA device servers are an ideal choice for connecting RS-232/422/485 serial devices, such as PLCs, sensors, meters, motors, drives, barcode readers, and operator displays to a network. All NPort IA models have a compact and rugged DIN-Rail mountable casing.

Built-in Ethernet cascading ports for easy wiring (RJ45 only)

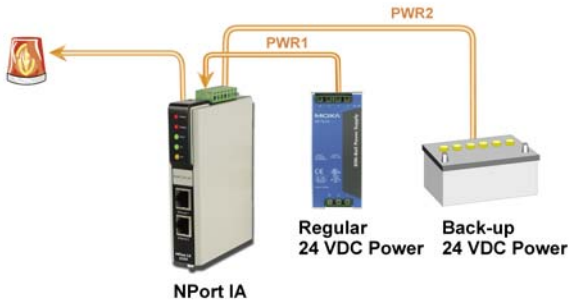
Each NPort IA device server has two Ethernet ports for easy wiring. The ports are used to cascade two or more NPort IA device servers by connecting from one server to another with a standard RJ45 Ethernet cable. The cascading feature eliminates the need to connect each device server to an Ethernet switch.



Redundant Power Inputs

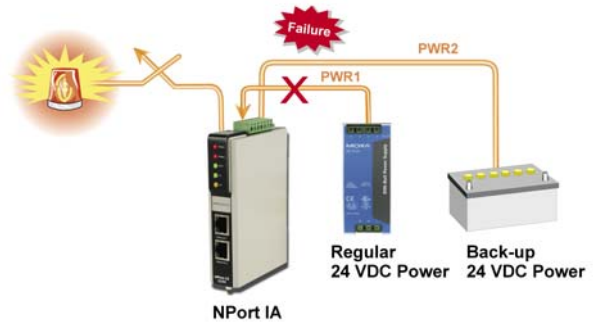
NPort IA device servers have two power inputs that can be connected simultaneously to live DC power sources. If one of the power inputs fails, the other live source acts as a backup

Dual Power Input



to support NPort IA device server's power needs automatically. The redundant dual DC power inputs give you extra assurance of non-stop operation.

Auto alarm for power failures



Warning by Relay Output and E-mail

The built-in relay output function helps you monitor each Ethernet link status, each power input status, and lets you check the web console to know which power or Ethernet link has failed. NPort IA can also send out a warning when an exception is detected. The relay output and E-mail warning function gives maintenance engineers a valuable tool for reacting promptly to emergency situations.



Specifications

LAN

NPort IA-5150-M-SC/5150I-M-SC/5150-S-SC/5150I-S-SC

Fiber Port: 1 100BaseFX port (SC connector)

NPort IA-5150/5150I/5250

Ethernet Switch Ports: 2 10/100BaseT(X) ports (RJ45 connector)

Protection: Built-in 1.5 KV magnetic isolation

Optical Fiber

Distance:

Multi mode: 0 to 2 km, 1310 nm (62.5/125 μ m, 500 MHz*km)

Single mode: 0 to 40 km, 1310 nm (9/125 μ m, 3.5 PS/(nm*km))

Min. TX Output:

Multi mode: -20 dBm

Single mode: 0 to 40 km, -5 dBm

Max. TX Output:

Multi mode: -14 dBm

Single mode: 0 to 40 km, 0 dBm

Sensitivity: -36 to -32 dBm (Single), -34 to -30 dBm (Multi)

NPort IA 5150 Series Serial Interface

1 RS-232/422/485 port, male DB9 for RS-232, 5-pin terminal block for RS-422/485

RS-232 Signals: 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

RS-485 Data Direction:

Patented Automatic Data Direction Control (ADDC™)

Isolation: 2 KV (5150I/5150I-M-SC/5150I-S-SC)

Serial Line Protection: 15 KV ESD for all signals

NPort IA 5250 Serial Interface

2 RS-232/422/485 ports, male DB9

RS-232 Signals: 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

RS-485 Data Direction:

Patented Automatic Data Direction Control (ADDC™)

Serial Line Protection: 15 KV ESD for all signals

Specifications

Serial Communication Parameters

- Parity:** None, Even, Odd, Space, Mark
- Data Bits:** 5, 6, 7, 8
- Stop Bit:** 1, 1.5, 2
- Flow Control:** RTS/CTS (for RS-232 port only), XON/XOFF
- Speed:** 110 bps to 230.4 Kbps

Software Features

- Protocols:** ICMP, IP, TCP, UDP, DHCP, BOOTP, Telnet, Rtelnet, DNS, SNMP, HTTP, SMTP, SNTP
- Utilities:** NPort Administrator for Windows 95/98/ME/NT/2000/XP/2003
- Real COM/TTY Drivers:** Windows 95/98/ME/NT/2000/XP/2003 COM driver, Linux real TTY driver
- Configuration:** Web browser, Telnet console, Windows utility, or Serial console

Power Requirements

- Power Input:** 12 to 48 VDC
- Power Consumption:**
 - 5150: 358 mA at 12V (max.)
 - 5150L: 417 mA at 12V (max.)
 - 5250: 390 mA at 12V (max.)

Mechanical Specifications

- Casing:** IP30 protection
- Dimensions (WxDxH):** 29 x 89.2 x 118.5 mm
- Gross Weight:** 5150 series: 0.15 kg (0.33lb)
5250: 0.16 kg (0.35 lb)

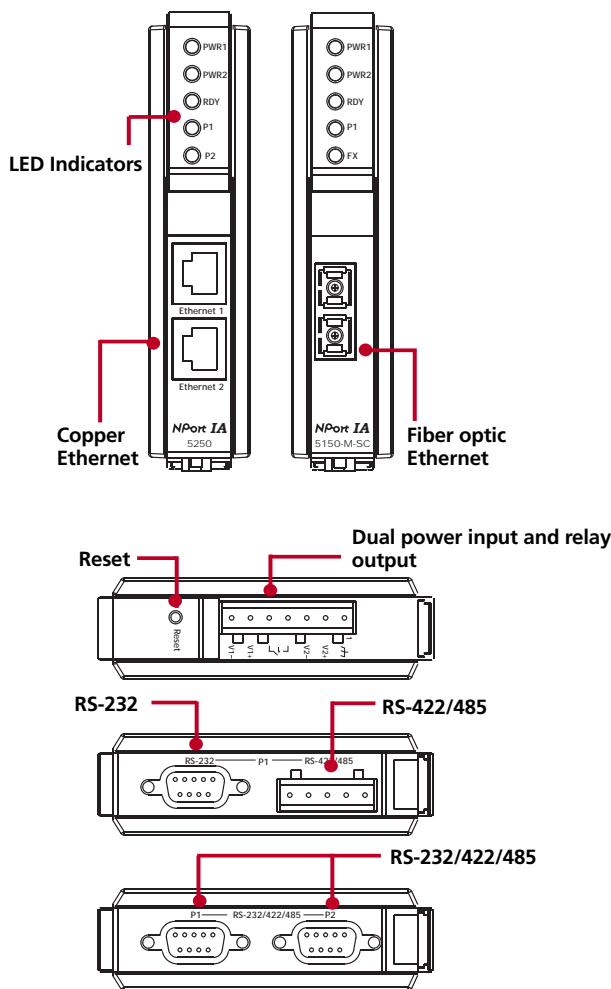
Environmental

- Operating temperature:** 0 to 55°C (32 to 131°F), 5 to 95% RH
- Storage temperature:** -20 to 85°C (-4 to 185°F), 5 to 95% RH

Regulatory Approvals

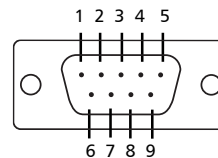
- EMC:** FCC Class A, CE Class A
- Safety:** UL (pending), CUL, TÜV (pending)

Appearance



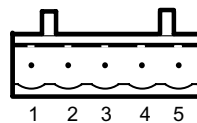
Pin Assignment

Pin assignment for RS-232/422/485 (DB9 Male)



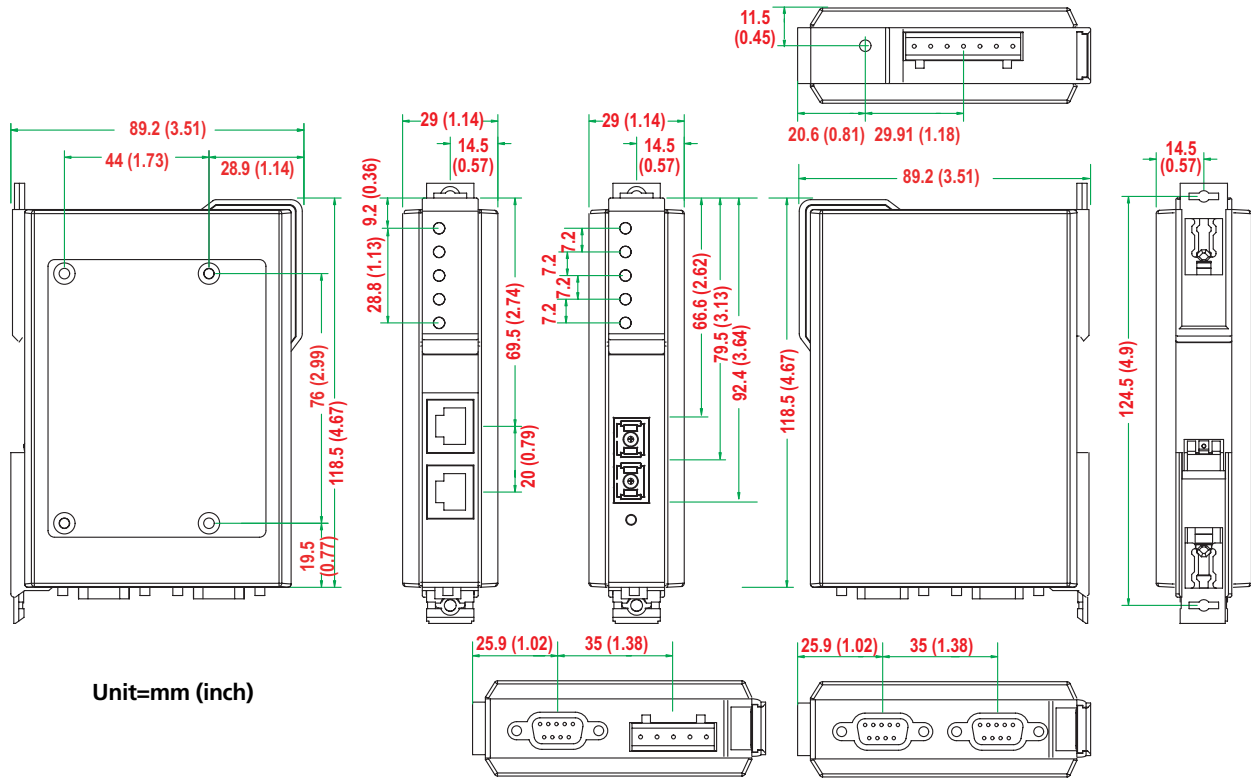
PIN	RS-232	RS-485 (4W)	RS-485 (2W)	RS-422
1	DCD	TxD-(A)	----	TxD-(A)
2	RxD	TxD+(B)	----	TxD+(B)
3	TXD	RxD+(B)	Data+(B)	RxD+(B)
4	DTR	RxD-(A)	Data-(A)	RxD-(A)
5	GND	GND	GND	GND
6	DSR	----	----	----
7	RTS	----	----	----
8	CTS	----	----	----
9	----	----	----	----

Pin assignment for 4W/2W RS-485/RS-422 (Terminal Block)



PIN	2W	4W
1	----	TxD-(A)
2	----	TxD+(B)
3	Data+(B)	RxD+(B)
4	Data-(A)	RxD-(A)
5	----	GND

Dimensions



Ordering Information

Standard Operating Temperature Models (0 to 55°C)

NPort IA-5150: 1-port RS-232/422/485 serial device server, 2 10/100BaseT(X) (RJ45, Single IP)

NPort IA-5150I: 1-port RS-232/422/485 serial device server with 2 KV isolation, 2 10/100BaseT(X) (RJ45, Single IP)

NPort IA-5250: 2-port RS-232/422/485 serial device server, 2 10/100BaseT(X) (RJ45, Single IP)

All items include

- 1 NPort IA serial device server
- Quick Installation Guide
- NPort Documentation and Software CD-ROM

Optional Accessories

DR-4524: 45W/2A DIN-Rail 24 VDC Power Supply with universal 85 to 264 VAC input

DR-75-24: 75W/3.2A DIN-Rail 24 VDC Power Supply with universal 85 to 264 VAC input

DR-120-24: 120W/5A DIN-Rail 24 VDC Power Supply with 88 to 132 VAC/176 to 264 VAC input by switch

