

NPort IA5450A Series Quick Installation Guide

Second Edition, July 2010

1. Overview

The NPort IA5450A series device servers deliver easy and reliable serial-to-Ethernet connectivity for the industrial automation market. The servers support several operation modes—TCP Server, TCP Client, UDP, Real COM, RFC2217, RTeInet, Pair Connection, and Ethernet Modem—ensuring the compatibility of network software, and are an ideal choice for connecting RS-232/422/485 serial devices, such as PLCs, sensors, meters, motors, drives, barcode readers, and operator displays.

2. Package Checklist

Before installing the NPort IA5450A series device servers, verify that the package contains the following items:

- 1 NPort IA5450A series Device Server
- Documentation and Software CD
- NPort IA5450A Series Quick Installation Guide
- Warranty Card

Optional Accessories

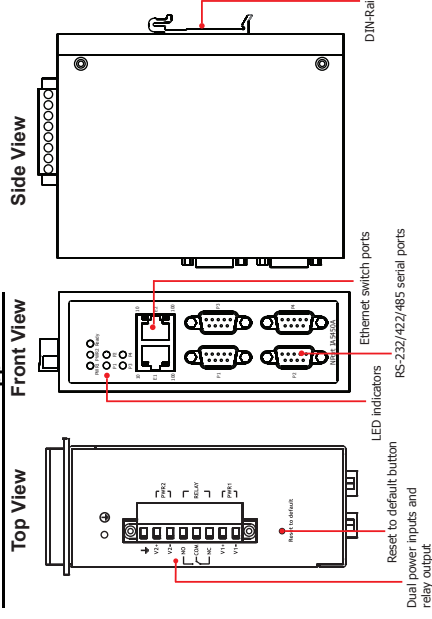
- DR-4524 45W/2A DIN-Rail 24 VDC Power Supply with universal 85 to 264 VAC input
- DR-75-24 75W/3.2A DIN-Rail 24 VDC Power Supply with universal 85 to 264 VAC input
- DR-120-24 120W/5A DIN-Rail 24 VDC Power Supply with 88 to 132 VAC/176 to 264 VAC input by switch
- WK-46 Wall mounting kit

Notify your sales representative if any of the above items is missing or damaged.

3. Hardware Introduction

Each model in the NPort IA5450A Series has four RS-232/422/485 3-in-1 DB9 serial ports for serial data communication, which are located on the front of the unit, and there is an 8-contact screw-type terminal block located on the top for power input and relay output.

NPort IA5450A Series Appearance



The Reset to Default Button—*Depress the Reset to default button for 5 continuous seconds to load the factory default settings:* Use a pointed object, such as a straightened paper clip or toothpick, to depress the Reset to default button. This will cause the Ready LED to blink on and off. The factory default settings are loaded once the Ready LED stops blinking (after about 5 seconds). At this point, you can release the Reset to default button.

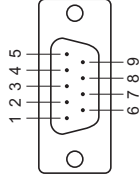
NPort IA5450A Series LED Indicators (front panel)

Name	Color	Function
PWR1, PWR2	red	Power is being supplied to power input PWR1, PWR2.
Ready		Steady on: Power is on and the NPort IA5450A series is booting up.
	red	Blinking: Indicates an IP conflict, the DHCP or BOOTP server did not respond properly, or a relay output occurred.
	green	Steady on: Power is on and the NPort IA5450A series is functioning normally.
E1, E2	off	Blinking: The device server has been located by Administrator's "Locate" function.
	orange	Power is off, or a power error condition exists.
	green	10 Mbps Ethernet connection.
P1, P2, P3, P4	off	100 Mbps Ethernet connection.
	orange	Ethernet cable is disconnected, or has a short.
	green	Serial port is receiving data.
		Serial port is transmitting data.

P/N: 1802054500011

6. Pin Assignments and Cable Wiring

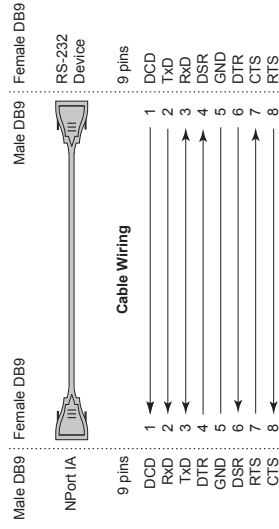
RS-232/422/485 (Male DB9) Pinouts



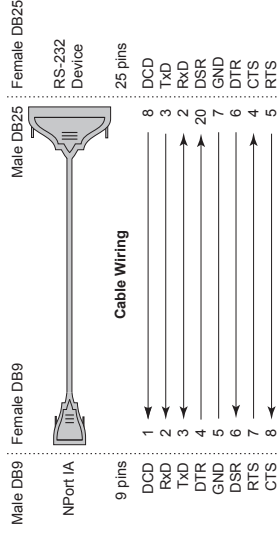
PIN	RS-232	RS-422/ RS-485 (4W)	RS-485 (2W)
1	DCD	TxD-(A)	---
2	RxD	TxD+(B)	---
3	TxD	RxD+(B)	Data+(B)
4	DTR	RxD-(A)	Data-(A)
5	GND	GND	GND
6	DSR	---	---
7	RTS	---	---
8	CTS	---	---
9	---	---	---

Four cables are available as optional accessories that can be used to connect the NPort IA5450A series to RS-232 serial devices. For your convenience, we show precise cable wiring diagrams for each of the two cables.

Female DB9 to Male DB9



Female DB9 to Male DB25



7. Specifications

Power requirements

NPort IA5450A: 12 to 48 VDC, 374 mA@12 VDC; 184 mA@24VDC

NPort IA5450AI: 12 to 48 VDC, 512 mA@12 VDC; 242 mA@24VDC

Operating temp. 0 to 60°C (32 to 140°F), for standard models
 -40 to 75°C (-40 to 167°F), for wide-temperature models

Operating humidity 5 to 95% RH

Dimensions 45.8 x 134 x 105 mm

(W×D×H) 1.80 x 5.28 x 4.13 in

Surge protection 1 KV for serial ports

1 KV for LAN ports

ESD protection 15 KV for all signals

Magnetic isolation 1.5 KV for Ethernet

Power line protection 4 KV Burst (EFT), EN61000-4-4

2 KV Surge, EN61000-4-5

Regulatory approvals CE/FCC Class A, UL 508, LVD, ATEX, Class 1 Div. 2/Zone 2