

# NPort® 5200 Series

## 2-port RS-232/422/485 serial device servers



- > Compact design for easy installation
- > Socket modes: TCP server/TCP client/UDP
- > Easy-to-use Windows utility for configuring multiple device servers
- > Supports 10/100M Ethernet
- > Patented ADDC® (Automatic Data Direction Control) for 2-wire and 4-wire RS-485
- > Built-in 15 KV ESD protection for all serial signals
- > SNMP MIB-II for network management

See also NPort 5200A, p.9-28



## Specifications

### Ethernet Interface

**Number of Ports:** 1  
**Speed:** 10/100 Mbps, auto MDI/MDIX  
**Connector:** 8-pin RJ45  
**Magnetic Isolation Protection:** 1.5 KV built-in

### Serial Interface

**Number of Ports:** 2  
**Serial Standards:**  
 NPort 5210: RS-232  
 NPort 5230: 1 RS-232 port, 1 RS-422/485 port  
 NPort 5232/5232I: RS-422/485

### Connector:

NPort 5210: RJ45 (8 pins)  
 NPort 5230/5232/5232I: Terminal Block (5 contacts per port)

### Serial Line Protection:

15 KV ESD protection for all signals  
 2 KV isolation protection (NPort 5232I/5232I-T)

**RS-485 Data Direction Control:** ADDC® (automatic data direction control)

### Serial Communication Parameters

**Data Bits:** 5, 6, 7, 8  
**Stop Bits:** 1, 1.5, 2  
**Parity:** None, Even, Odd, Space, Mark  
**Flow Control:** RTS/CTS (RS-232 only), DTR/DSR (NPort 5210 only), XON/XOFF

**Baudrate:** 110 bps to 230.4 Kbps

### Serial Signals

**RS-232:**  
 NPort 5210: Tx+, Rx+, RTS, CTS, DTR, DSR, DCD, GND  
 NPort 5230: Tx+, Rx+, RTS, CTS, GND  
**RS-422:** Tx+, Tx-, Rx+, Rx-, GND  
**RS-485-4w:** Tx+, Tx-, Rx+, Rx-, GND  
**RS-485-2w:** Data+, Data-, GND

### Software

**Network Protocols:** ICMP, IP, TCP, UDP, DHCP, BOOTP, Telnet, DNS, SNMP V1, HTTP, SMTP, SNTP  
**Configuration Options:** Web Console, Serial Console (NPort 5210/5230 only), Telnet Console, Windows Utility  
**Windows Real COM Drivers:** Windows 95/98/ME/NT/2000, Windows XP/2003/Vista/2008/7 x86/x64, Embedded CE 5.0/6.0, XP Embedded  
**Fixed TTY Drivers:** SCO Unix, SCO OpenServer, UnixWare 7, UnixWare 2.1, SVR 4.2, QNX 4.25, QNX 6, Solaris 10, FreeBSD, AIX 5.x, HP-UX 11i  
**Linux Real TTY Drivers:** Linux kernel 2.4.x, 2.6.x, 3.0.x

### Physical Characteristics

**Housing:** Metal  
**Weight:**  
 NPort 5210: 340 g  
 NPort 5230/5232: 360 g  
 NPort 5232I: 380 g

### Dimensions:

NPort 5210/5230/5232:  
 Without ears: 67 x 100.4 x 22 mm (2.64 x 3.95 x 0.87 in)  
 With ears: 90 x 100.4 x 22 mm (3.54 x 3.95 x 0.87 in)  
 NPort 5232I:  
 Without ears: 67 x 100.4 x 35 mm (2.64 x 3.95 x 1.37 in)  
 With ears: 90 x 100.4 x 35 mm (3.54 x 3.95 x 1.37 in)

### Environmental Limits

**Operating Temperature:**  
 Standard Models: 0 to 55°C (32 to 131°F)  
 Wide Temp. Models: -40 to 75°C (-40 to 167°F)  
**Storage Temperature:** -40 to 85°C (-40 to 185°F)  
**Ambient Relative Humidity:** 5 to 95% (non-condensing)

### Power Requirements

**Input Voltage:** 12 to 48 VDC  
**Power Consumption:**  
 NPort 5210: 325 mA @ 12 V, 190 mA @ 24 V  
 NPort 5230: 325 mA @ 12 V, 190 mA @ 24 V  
 NPort 5232: 280 mA @ 12 V, 150 mA @ 24 V  
 NPort 5232I: 509.4 mA @ 12 V, 200 mA @ 24 V

### Standards and Certifications

**Safety:** UL 60950-1, EN 60950-1  
**EMC:** CE, FCC  
**EMI:** EN 55022 Class A, FCC Part 15 Subpart B Class A  
**EMS:** EN 55024  
**Marine:** DNV  
**Medical:** (NPort 5210 only)  
 EN 60601-1-2 Class B, EN 55011

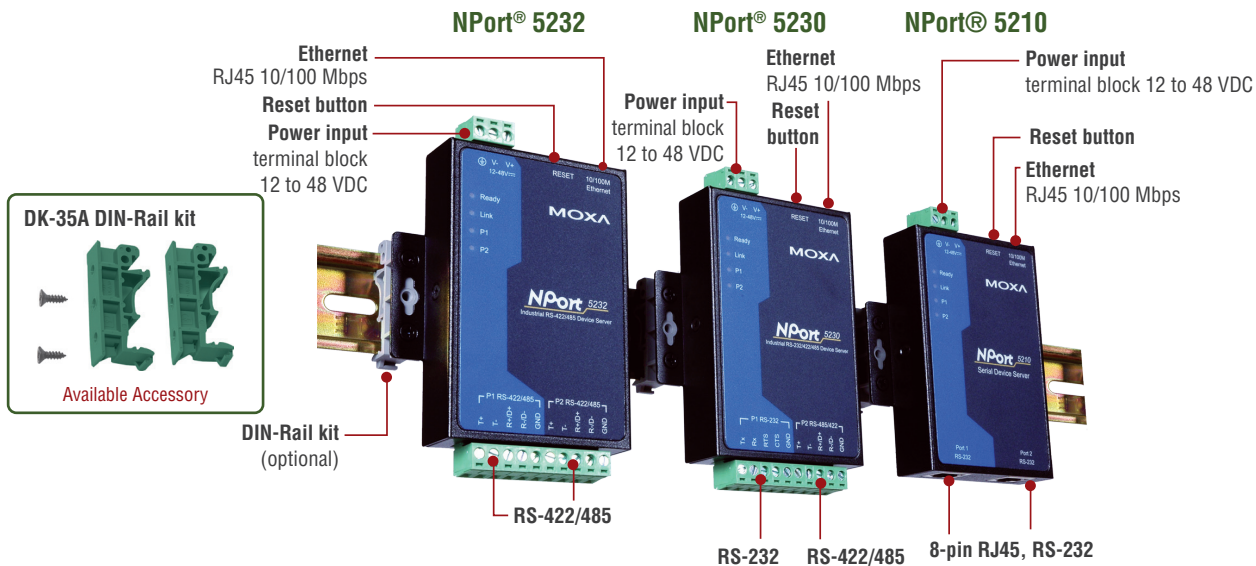
### Reliability

**Alert Tools:** Built-in buzzer and RTC (real-time clock)  
**Automatic Reboot Trigger:** Built-in WDT (watchdog timer)  
**MTBF (mean time between failures):**  
 NPort 5210: 134,850 hrs  
 NPort 5230: 106,955 hrs  
 NPort 5232: 102,344 hrs  
 NPort 5232i: 87,083 hrs

### Warranty

**Warranty Period:** 5 years  
**Details:** See [www.moxa.com/warranty](http://www.moxa.com/warranty)

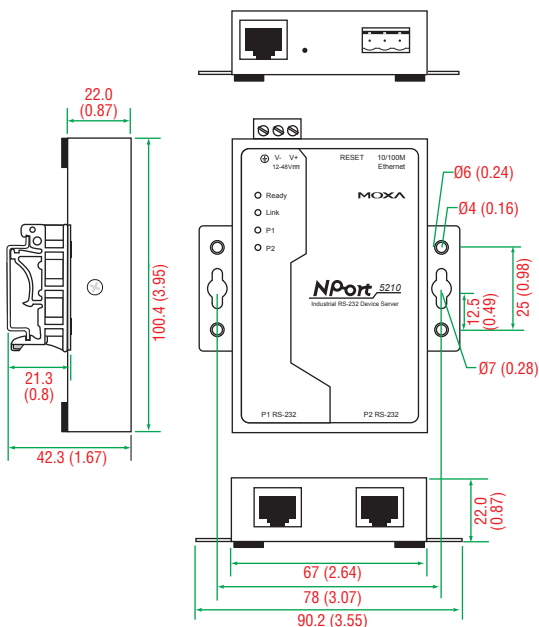
## Appearance



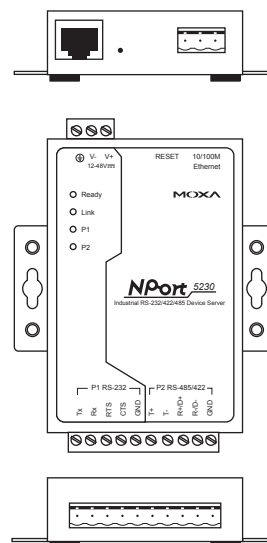
## Dimensions

Unit: mm (inch)

### NPort 5210

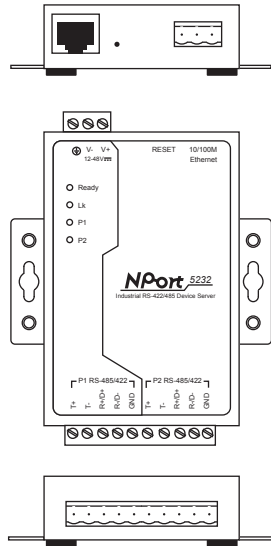


### NPort 5230

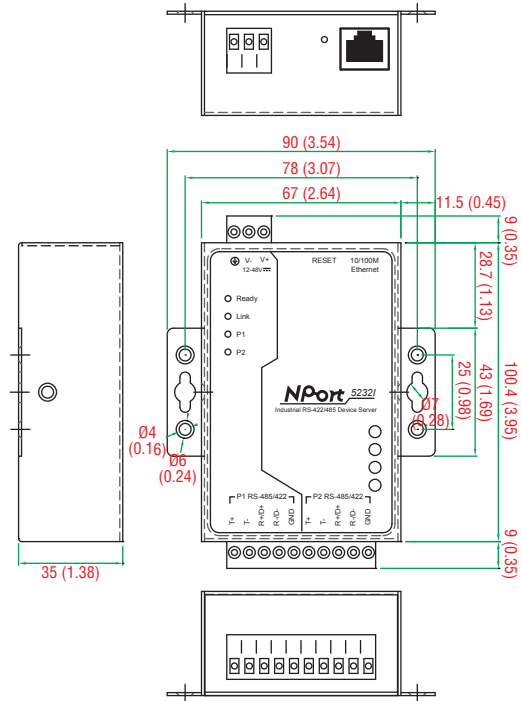


**Dimensions**

**NPort® 5232**



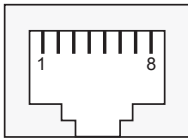
**NPort® 5232I**



Unit: mm (inch)

**Pin Assignment**

**8-pin RJ45 connector**



**NPort® 5210/5210-T (RS-232)**

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

**Ordering Information**

**Available Models**

- NPort 5210:** 2-port RS-232 device server, 0 to 55°C operating temperature
- NPort 5230:** 2-port device server with 1 RS-232 port and 1 RS-422/485 port, 0 to 55°C operating temperature
- NPort 5232:** 2-port RS-422/485 device server, 0 to 55°C operating temperature
- NPort 5232I:** 2-port RS-422/485 device server with 2 KV optical isolation, 0 to 55°C operating temperature
- NPort 5210-T:** 2-port RS-232 device server, -40 to 75°C operating temperature
- NPort 5230-T:** 2-port device server with 1 RS-232 port and 1 RS-422/485 port, -40 to 75°C operating temperature
- NPort 5232-T:** 2-port RS-422/485 device server, -40 to 75°C operating temperature
- NPort 5232I-T:** 2-port RS-422/485 device server with 2 KV optical isolation, -40 to 75°C operating temperature

**Optional Accessories** (can be purchased separately)

- DK-35A:** Mounting Kit for 35-mm DIN-Rail
- DIN-Rail Power Supply:** See page A-8 for details
- PWR-12150-USJP-SA-T:** 100 to 240 VAC input, 12 VDC/1.5A output, -40 to 75°C, screw type, US/JP Plug
- PWR-12150-EU-SA-T:** 100 to 240 VAC input, 12 VDC/1.5A output, -40 to 75°C, screw type, EU Plug
- PWR-12150-UK-SA-T:** 100 to 240 VAC input, 12 VDC/1.5A output, -40 to 75°C, screw type, UK Plug
- PWR-12150-CN-SA-T:** 100 to 240 VAC input, 12 VDC/1.5A output, -40 to 75°C, screw type, CN Plug
- PWR-12150-AU-SA-T:** 100 to 240 VAC input, 12 VDC/1.5A output, -40 to 75°C, screw type, AU Plug

**Package Checklist**

- NPort 5200 device server
- Power jack to a 3-pin terminal block adaptor
- Documentation and software CD
- Quick installation guide (printed)
- Warranty card