NP5000-2T-8DI-S(RS-485)-TB-P(12-48VDC)

Desktop/Wall Mounting

8-port RS-485 Safe Serial Server

- Support 8 RS-485 serial ports to 2 10/100Base-T(X) self-adaptive Ethernet interfaces

- Support network modes such as redundant mode, switching mode and dual IP mode to meet the needs of various network environments

- Support RealCom, Reverse RealCom, TCP Server, TCP Client, UDP Server, UDP Client, Pair Master, Pair Slave, UDP Rang, UDP Multicast, Telnet, Reverse Telnet, RFC2217, Redundant COM, DRDAS RealCom, DRDAS TCP Server and other operating modes

- Support 12~48VDC wide voltage input

- Support -40~75℃ wide operating temperature range

Industrial Grade

IP40

Introduction

NP5000-2T-8DI-S(RS-485)-TB-P(12-48VDC) is serial device server that can make serial device be equipped with networking capability instantly and centrally manage the scattered serial devices and hosts via network. This product supports 8 RS-485 serial ports to 2 10/100Base-T(X) self-adaptive Ethernet port. It adopts desktop/wall mounting to meet the requirements of different application scenes.

Serial device server supports multiple network protocols, such as TCP, UDP, RFC2217, TELNET, ARP, ICMP, HTTP, HTTPS, SNMP, SSH, SMTP, SNTP, DNS, BOOTP and DHCP protocol. It also possesses complete management functions, including Access Control, Rapid Configuration, Online Upgrading and so on. Each serial port supports 4 TCP or UDP session connections, and it also supports RealCom, Reverse RealCom, TCP Server, TCP Client, UDP Server, UDP Client, Pair Master, Pair Slave, UDP Rang, UDP Multicast, Telnet, Reverse Telnet, RFC2217, Redundant COM, DRDAS RealCom and DRDAS TCP Server work modes and TELNET, WEB and SSHD access modes. Furthermore, supplied management configuration tool based on Windows platform can guide the user to manage and configure the device, achieving immediate networking of serial device via simple settings. It can provide users with good experience with friendly design of network management system interface, simple and convenient operation.

RESET button can achieve the restore factory defaults function. Each RS-485 serial port of the device is equipped with an exclusive isolation component, which can effectively avoid the impact of electromagnetic interference. Hardware adopts fanless, low power consumption, wide temperature and voltage design and has passed rigorous industrial standard tests, which can adapt to the industrial scene environment with harsh requirements for EMC. It can be widely used in custom checkpoint system, smart gas station, data center and industrial automation, etc.
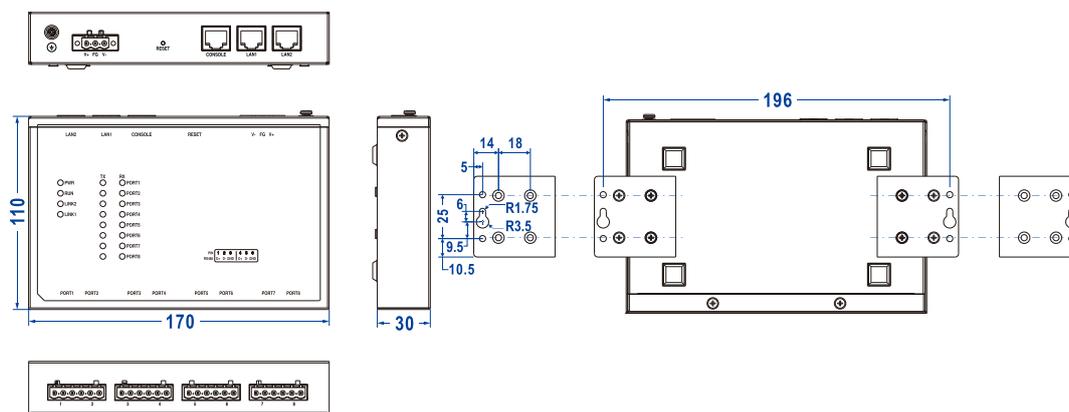
Features and Benefits

- ⊙ Support 2 10/100Base-T(X) self-adaptive Ethernet interfaces and provide dual IP and MAC addresses to meet the requirements of multi-network management or network backups
- ⊙ Support 110bps-115200bps (customizable 921600bps) line speed and non-blocking communication
- ⊙ Support RealCom, Reverse RealCom, TCP Server, TCP Client, UDP Server, UDP Client, Pair Master, Pair Slave, UDP Rang, UDP Multicast, Telnet, Reverse Telnet, RFC2217, Redundant COM, DRDAS RealCom, DRDAS TCP Server and other operating modes
- ⊙ Support cross-gateway and cross-router communication
- ⊙ Support multiple hosts polling mode, which allows multiple hosts to access the same serial port

- Support delimiter matching communication, achieving various demands for serial port packaging
- Support FIFO, compatible with various old type terminal devices
- Support IP address and MAC address filtering, which can achieve accurate access control easily
- Support graded user management to implement humanized authority management
- Support serial port status, parameters and communication statistical monitoring, making the communication status easy to read
- Support virtual serial port drive access mode and automatic connection recovery after network interruption
- Flexible serial port data framing setting, which can satisfy user's various demands for data packets segmentation
- Support standard TCP/IP SOCKET application access
- TCP supports multi-connection, which allows maximum 4 users to monitor or manage the serial device simultaneously
- UDP supports single machine or multi-machine communication, which allows multiple users to monitor or manage the serial device simultaneously
- Support TELNET and Reverse TELNET modes, build TELNET protocol session to realize the conversion of serial port data and Ethernet data between terminal device and server
- Support RFC2217 protocol, which can make serial port present in the host as local COM port
- Support multiple configuration forms like Windows configuration tool, TELNET, SSHD and WEB
- SSHD and HTTPS can guarantee the access security of data
- Support multiple alarm methods, including e-mail alarm, log alarm and system alarm
- Support multiple alarm events including warm start and cold start
- Conduct network diagnosis and troubleshooting via Ping and Traceroute
- Support ARP function, which can avoid the failure of communication due to the MAC address of serial server being aged by switch or router.
- Support static routing, routing table could be added manually

Dimension

Unit: mm

Specification

Ethernet	Standard: 10Base-T, 100Base-TX Protocol: TCP, UDP, ARP, HTTP, HTTPS, TELNET, ICMP, SMTP, SNTP, DHCP, DNS Rate: 10/100M Automatic Flow Control, MDI/MDI-X Autotunning Interface form: RJ45 Interface quantity: 2 Duplex mode: Full/Half Duplex Mode Self-adaption Work mode: each serial port can simultaneously establish up to 4 TCP/UDP session connections, support work modes such as RealCom, Reverse RealCom, TCP Server, TCP Client, UDP Server, UDP Client, Pair Master, Pair Slave, UDP Rang, UDP Multicast, Telnet, Reverse Telnet, RFC2217, Redundant COM, DRDAS RealCom and DRDAS TCP Server
Serial Port	Standard: EIA RS-485 Quantity of serial port: 8 RS-485 serial ports RS-485 signal: D+, D-, GND Baud rate: 110bps-15200bps (customizable110bps-921600bps) Data bit: 5bit, 6bit, 7bit, 8bit Parity bit: None, Even, Odd, Space, Mark Stop bit: 1bit, 1.5bit, 2bit Interface form: 6-pin 5.08mm pitch terminal blocks Direction control: RS-485 direction adopts Automatic Data Direction Control (ADDC) Load capacity: RS-485 supports 32 points polling (customizable 256 points) Transmission distance: RS-485, 1200m Pull high/low resistor for RS-485: 4.7kΩ

Electromagnetic isolation strength: 3kVDC/2KVrms

Console Port	CLI command line management port (RS-232), RJ45
Configuration Method	WEB configuration management, TELNET configuration, Windows configuration tool, SSHD configuration
Security	User right classification, IP address filtering, MAC address filtering, SNMP/ Mail /System log alarm, HTTP/HTTPS/SSHD/TELNET access control
Indicator	Power supply indicator, Ethernet port indicator, Serial port indicator, Running indicator
Power Supply	This device provides 12~48VDC power supply which is 3-pin 5.08mm pitch terminal block, the power supply supports non-polarity connection.
Power Consumption	No-load: 3.6W@12VDC (high temperature) Full-load: 4.1W@12VDC (high temperature)
Working Environment	Operating temperature: -40~75℃ Storage temperature: -40~85℃ Relative humidity: 5%～95%(no condensation)
Physical Characteristic	Housing: IP40 protection, metal Installation: Desktop and Wall Mounting Dimension (W x H x D): 170mm×30mm×110mm (lugs are not included) Weight: 0.54kg
Industrial Standard	IEC 61000-4-2 (ESD, electrostatic discharge), Level 3 ● Air discharge: ± 8kV ● Contact discharge: ±6kV IEC 61000-4-4 (EFT, electrical fast transient pulses), Level 3 ● Power supply: ±2kV ● Signal: ±1kV IEC 61000-4-5 (Surge), Level 3 ● Power supply: common mode±2kV, differential mode±1kV ● Signal: common mode ±1kV, differential mode ±1kV Shock: IEC 60068-2-27 Free fall: IEC 60068-2-32 Vibration: IEC 60068-2-6

Authentication	CE, FCC, RoHS
Warranty	3 years

Ordering Information

Available Models	100M Copper Port	RS-485	Power Supply
NP5000-2T-8DI-S(RS-485)-TB-P(12-48VDC)	2	8	12~48VDC

Address: 3/B, Zone 1, Baiwangxin High Technology Industrial Park, Song Bai Road, Nanshan District, Shenzhen, 518108, China

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