NAVIGATEWORX NR500 NC

Industrial VPN Router for Energy, Transportation and Industrial Automation Applications

Navigateworx NR500 NC industrial router enables wireline data connectivity over public and private networks at high speeds.

NR500 NC router without cellular module, 2 or 4 LAN ports, RS232 and RS485 interfaces are provided to support Serial to IP communication. NR500 NC router supports 9 to 48 VDC wide range power inputs, designed with reverse-voltage protection mechanism for greater reliability. It is an advanced choice for universal wireline M2M applications with reliable features for data transmission.

BENEFITS

Navigateworx NR500 NC industrial VPN router is ideal connecting to wireline network in critical M2M applications and deployments around the world.

Industrial internet access
- Wired Ethernet connection support DHCP, Static IP and PPPoE
- Remote access to SCADA System for Industrial Automation
- Reduce high costs for on-site maintenance

Designed for industrial usage
- Power Input Range 9 to 48 VDC
- Industrial design for harsh environment
- Aluminum casing

Secure and reliable remote connection
- Connection manager ensure seamless communication
- Support Multiple VPN tunnels for data encryption
- Firewall prevents unsafe and unauthorized access
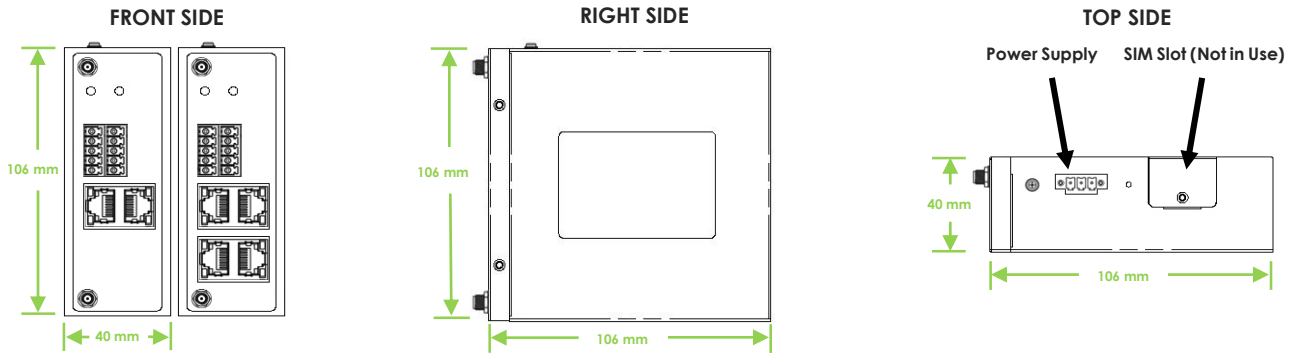
Easy to use and easy maintenance
- User-friendly web interface for human interaction
- Easy configuration for deployment
- Support Central Management Platform

APPLICATION EXAMPLE

SPECIFICATIONS

ETHERNET	
Number of Ports	2 Ports: 1 x WAN + 1 x LAN
	4 Ports: 1 x WAN + 3 x LAN
Port Type	Auto 10/100 Mbps, auto MDI/MDIX
Magnet Isolation Protection	1.5 KV

WIFI (Optional)	
Wireless Mode	IEEE 802.11b/g/n, Access Point (AP), Client
Wireless Speed	2*2 MIMO, 300 Mbps
Wireless Security	WPA, WPA2, WEP, CCMP, TKIP
Frequency Bands	2.412 - 2.484 GHz (2.4 GHz ISM band)
Antennas	2 x RP-SMA for Wi-Fi antenna connectors

SERIAL	
Number of Ports	1 x RS-232 (3 PIN) + 1 x RS-485
Connector	Terminal block
ESD Protection	± 15 KV
Baud Rate	300bps to 115200bps

DIGITAL INPUT & OUTPUT	
Type	2 x DI + 2 x DO
Connector	Terminal block
Isolation	3KVDC or 2KVrms
Absolute maximum VDC	36VDC
Absolute maximum ADC	100 mA

POWER	
Connector	3-pin 3.5 mm female socket with lock
Input Voltage Range	9 to 48 VDC
Power Consumption	Idle: 100 mA@12 V Data link: 400 mA (peak) @12 V

HARDWARE	
Watchdog	Built-in watchdog
LEDs	SYS, NET, USR, RSSI x 3
Reset Button	Reset/restore to factory default button
Ingress Protection	IP30
Housing & Weight	Metal, 300 g
Dimensions	106mm x 106mm x 40mm
Installations	DIN-rail mounting
Operating Temperature	-40 °C to 75 °C
Operating Humidity	5% to 95% non-condensing

NETWORK	
Routing	Static routing
Dynamic Routing (Optional)	RIPv1/v2, OSPF, BGP
Network Protocols	TCP, UDP, IPv4, ICMP, NTP, DNS, HTTP, HTTPS, ARP, PPP, PPPoE, DHCP, IP Passthrough, VRRP
Connection Manager	Ping Detection, Timer Reboot, ICMP for link detection
Firewall	Flexible access control of TCP, UDP, ICMP packets, MAC address filter
DDNS	Supported some service providers, others can be configured manually
Modbus Slave (Optional)	Read device status via Modbus protocol

VPN	
OpenVPN	OpenVPN client, supports up to 5 x OpenVPN tunnels
GRE	Layer2 and Layer3, supports up to 5 x GRE VPN tunnels
IPsec	IKEv1, IKEv2, supports up to 5 x IPsec VPN tunnels
DMVPN (Optional)	Dynamic Multipoint Virtual Private Networking DMVPN
PPTP/L2TP (Optional)	PPTP or Point-to-Point Tunneling Protocol and L2TP or Layer 2 Tunneling Protocol (L2TP)

MONITORING & MANAGEMENT	
Web GUI	HTTP/HTTPS, firmware upgrade
Command Line Interface	SSHv2 and TELNET
Management platform	Central Management Platform

NavigateWorx

APPROVAL		
EMI	EN 55032:2012 Class B	
EMS	IEC 61000-4-2 ESD	Level 4
	IEC 61000-4-3 RS	Level 3
	IEC 61000-4-4 EFT	Level 3
	IEC 61000-4-5 Surge	Level 3
	IEC 61000-4-6 CS	Level 3
Vibration	EN50155	

DIMENSIONS

FRONT SIDE

106 mm

40 mm

RIGHT SIDE

106 mm

106 mm

TOP SIDE

Power Supply   SIM Slot (Not in Use)

40 mm

106 mm

ORDERING INFORMATION

| MODEL	PART NUMBER	DESCRIPTION
NR500-SNG	A502033	No Cellular Module, 2 x Eth, 1 x RS232 (3 PIN), 1 x RS485, 2 x DI, 2 x DO, 9 - 48VDC
	A512033	No Cellular Module, 2 x Eth, 1 x RS232 (3 PIN), 1 x RS485, 2 x DI, 2 x DO, 9 - 48VDC, 2.4GHz Wi-Fi
NR500-PNC	A504033	No Cellular Module, 4 x Eth, 1 x RS232 (3 PIN), 1 x RS485, 2 x DI, 2 x DO, 9 - 48VDC
	A514033	No Cellular Module, 4 x Eth, 1 x RS232 (3 PIN), 1 x RS485, 2 x DI, 2 x DO, 9 - 48VDC, 2.4GHz Wi-Fi

OPTIONAL ACCESSORIES

Power Supply

Wi-Fi Rubber Antenna
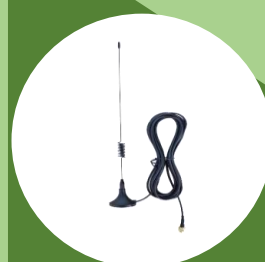
Wi-Fi Magnet Antenna

Din-Rail

FOR MORE INFORMATION

PLEASE VISIT WWW.NAVIGATEWORX.COM

Navigateworx is always available to serve you with expert technical support and we will continually concentrate on IIoT / M2M Industry and bring more and more reliable, trustable Solution for our clients. That is NavigateWorx.

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