

# GoRugged R3000 NU

## Industrial VPN Router

### for Rugged Secure Connectivity

Robustel GoRugged R3000 NU is a rugged VPN router offering state-of-the-art secure connectivity for machine to machine (M2M) applications.

#### Key Features

- WAN link management: Ethernet WAN/WLAN WAN backup.
- VPN tunnel: IPSec/OpenVPN/PPTP/L2TP/GRE.
- Supports Modbus gateway (Modbus RTU/ASCII to Modbus TCP).
- Supports GPS (optional), provides real time location and tracking.
- Supports 802.11 b/g/n Wi-Fi (optional), AP and client mode.
- Supports SDK, provides user programmatic interface.
- Supports 802.1Q VLAN tagging.
- Supports IP Pass-through.
- Auto reboot via Timing.
- Supports RobustLink (Centralized M2M management platform).
- Flexible Management methods: Web/CLI/SNMP/RobustLink.
- Firmware upgrade via Web/CLI/USB/RobustLink.
- Various interfaces: RS232/RS485/Console/DI/DO/USB/Ethernet.
- Wide range input voltages from 9 to 60 VDC and extreme operating temperature.
- The metal enclosure can be mounted on a DIN-rail or on the wall, also with extra ground screw.



#### Applications

- ATM/Vending Machine Connectivity
- Solar/Wind Energy Monitor
- Distribution Automation
- Automatic Meter Reading
- Industrial Automation
- IP Video Surveillance
- Remote Devices

#### Regulatory and Type Approvals

- Approval & Detective: CE, R&TTE, FCC, RCM, RoHS, WEEE
- EMC: EN 61000-4-2 (ESD) Level 4, EN 61000-4-3 (RS) Level 4  
EN 61000-4-4 (EFT) Level 4, EN 61000-4-5 (Surge) Level 3  
EN 61000-4-6 (CS) Level 4, EN 61000-4-8, EN 61000-4-12

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### Specifications

#### Ethernet Interface

- Number of Ports: 2 x 10/100 Mbps, 1 LAN+1 WAN
- Magnet Isolation Protection: 1.5KV

#### WLAN Interface (Optional)

- Standards: 802.11b/g/n up to 65 Mbps, AP and Client mode
- Frequency Band: 2.400 - 2.500 GHz (2.4 GHz ISM band)
- Security: Open ,WPA, WPA2
- Encryption: AES, TKIP
- Antenna Interface: SMA Female
- Transmission Power: 802.11b: 17dBm, 802.11g/n: 15dBm
- Reception Sensibility: 1M: -97dBm, 2M: -93dBm, 6M: -91dBm, 11M: -89dBm, 54M: -75dBm, 65M: -72dBm

#### GPS Interface (Optional)

- Antenna Interface: SMA Female, 50 ohms impedance
- Tracking Sensitivity: better than -158 dBm
- Protocol: NMEA-0183 V2.3

#### Serial Interface

- Number of Ports: 1 x RS-232, 1 x RS-485 or 2 x RS232 or 2 x RS485
- ESD Protection:  $\pm 15KV$
- Parameters: 8E1, 8O1, 8N1, 8N2, 7E2, 7O2, 7N2, 7E1
- Baud Rate: 300bps to 230400bps
- RS-232: TxD, RxD, RTS, CTS, GND
- RS-485: Data+ (A), Data- (B), GND
- Interface: 3.5mm terminal block with lock

#### Digital Input

- Type: 2 x DI, Dry Contact
- Dry Contact: On: open, Off: short to GND
- Isolation: 3K VDC or 2K Vrms
- Digital Filtering Time Interval: Software selectable
- Interface: 3.5mm terminal block with lock

#### Digital Output

- Type: 2 x DO, Sink
- Isolation: 3K VDC or 2K Vrms
- Absolute Maximum VDC: 36V
- Absolute Maximum ADC: 50mA
- Interface: 3.5mm terminal block with lock

#### System

- LED Indicators: RUN, WLAN, USR
- Built-in RTC, Watchdog, Timer
- Expansion: 1 x USB 2.0 host up to 480 Mbps
- Storage: 1 x MicroSD

#### Software

- Network protocols: PPPoE, TCP, UDP, DHCP, ICMP, NAT, DMZ, RIP v1/v2, OSPF, DDNS, VRRP, HTTP, HTTPS, DNS, ARP, QoS, SNTP, Telnet, VLAN, etc
- VPN tunnel: IPSec/OpenVPN/PPTP/L2TP/GRE
- Firewall: SPI, anti-DoS, Filter, Access Control
- Management: Web, CLI, SNMP v1/v2/v3, RobustLink
- Serial Port: TCP client/server, UDP, Modbus RTU/ASCII to Modbus TCP, Virtual COM (COM port redirector)
- RobustLink: Centralized M2M management platform

#### Power Supply and Consumption

- Power Supply Interface: 5mm terminal block with lock
- Input Voltage: 9 to 60 VDC
- Power Consumption: Idle: 100 mA @ 12 V  
Data Link: 400 mA (peak) @ 12 V

#### Physical Characteristics

- Housing & Weight: Metal, 500g
- Dimension: (L x W x H): 125 x 108 x 45 mm
- Installation: 35mm Din-Rail or wall mounting or desktop

#### Packing List

- Robustel R3000 NU Router
- Terminal Block for Power, I/O and Serial Port
- Document and Software CD

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

- AC/DC Power Supply Adapter
- Rubber SMA Antenna for WLAN
- 35mm Din-Rail mounting kit or Wall mounting kit

#### Contact:

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