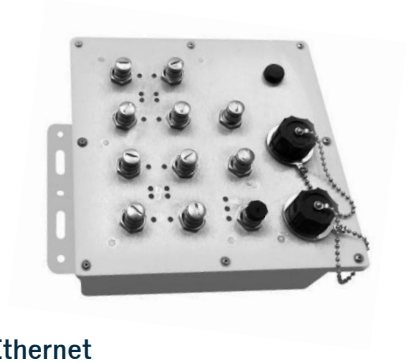
RhinoSwitch® RSM-1000-W Managed Switch

The RhinoSwitch® RSM-1000-W Managed Switches are industrially hardened and offer eight Fast Ethernet RJ45 ports and two Gb fiber ports.These ports can include four PoE or PoE+ ports depending on the power supply selected.



- Have heavy-duty waterproof and vibration-resistant IP67 Fast Ethernet Managed Switches with eight M12 copper ports and two Gb LC-type fiber ports.
- Have robust Management Software
- Are available with four PoE+ ports
- Have multi-level passwords, SNMPv3, IEEE 802.1X, RADIUS, TACACS+, HTTPS, and SSL/SSH for network security
- Support all DC & AC power ranges including 12, 24/28, 48, 55, 110, 125, 150, 250 VDC and 115/230 AC.
- Are ideal for extreme environments where the switches will be exposed to water and/ or extreme vibration
- Have an operating temperature of -40°C to +85°C and can withstand the most demanding environments including outdoors, railways, and power utility substations

The features of the Management Software in RhinoSwitch® RSM-800-W Managed Switches are:

- Robust GUI and CLI-based Management Software
- RSTP, RSTP-2004 & MSTP for rapid recovery
- VLAN (802.1q) with Double Tagging and GVRP
- IGMP Snooping and GMRP multicast filtering
- Quality of Service (802.1p) and TOS/DiffServ
- LLDP for automated topology discovery
- LACP 802.3ad
- Port Rate Limiting and Broadcast Storm Limiting

- Port Mirroring for Troubleshooting
- SNMP (Simple Network Management Protocol)
- SNTP (Simple Network Time Protocol)
- Remote Monitoring (RMON)
- DHCP Client, Server, and Relay
- Port Trunking for optimal bandwidth utilization
- Port Manager for Speed/Duplex/auto negotiation
- Event Monitoring with automatic email warnings

The features of Cyber Security in RhinoSwitch® RSM-800-W Managed Switches are:

- SSH/SSL encryption
- Radius-based access management and authentication
- TACACS+ based user management
- Multiple levels of Passwords/User Access
- Port Security with MAC based Access Control
- 802.1X Port Based Network Access Control
- SNMPv3 Encrypted Authentication and Access Security
- VLAN (802.1Q) for Security and Traffic Segregation

Product Specifications:-

Type	RSM-800-W
General	■ Operation: Store and forward wire speed switching, non-blocking ■ Modes: Full or half duplex operation with flow control supported on all ports ■ Switching bandwidth: 1.6 Gbps ■ Latency (100Mb typical): 5 µs plus frame time ■ Packet Buffer: 1Mb ■ Ethernet isolation: 1500 Vrms 1 minute ■ Console port: RJ45 ■ 8K MAC addresses
RJ45 Copper Ports	■ RJ45 ports: 8 ports fully IEEE 802.3 compliant (Optional: upto 4 PoE ports (802.3af) or PoE+ ports (802.3at) ■ RJ45 speed and duplex: Configurable or 10/100/1000 auto-detecting for speed and duplex (full

	or half) ■ RJ45 speed and duplex: Configurable or 10/100 auto-detecting for speed & duplex (full or half) ■ RJ45 MDI/MDIX: Auto-MDI/MDIX-Crossover automatically supports either straight or crossed cables ■ RJ45 polarity: Auto-polarity for automatic correction of crossed TXD and RXD pairs
Power and Alarm Output	■ AC: Input: 100-125vac at 60 Hz, 215-240vac at 50 Hz ■ DC Power input: Dual redundant power inputs for single power supplies ■ DC: Low Input voltage range (24/28V, 48V) DC: 18-75VDC ■ DC: High Input voltage range (110, 125, 150, 250VDC): 90-300VDC ■ Power consumption: 15 watts max ■ Industrial surge and spike protection: 15 kW peak, 5 kW (10 times for 10 μs) ■ Alarm Output (RJ45): 2 alarms; form C contact relay and normally closed
Environmental	■ Operating temperature for all models: -40°C to +85°C ■ Storage temperature for all models: -45°C to +90°C ■ Humidity: 5 to 95% RH (non-condensing) ■ Altitude: 19,000 ft. (6,000m) ■ MTBF: > 219,000 hours ■ **Optional Conformal Coating available on request**
Standards and Compliance	■ Safety: UL/CSA/EN/IEC 60950-1,2nd Edition CB report ■ Emissions: EN/ETSI 300-386; FCC Part 15 ■ EN55032,24; AN/NZ CISPR22, VCCI, EN61000-6-4 Class A ■ CFR 47-FCC part 15, ICES 003, Class A ■ Hazardous Locations: UL/cUL Class 1 Div 2; ATEX Zone 2 ■ IEC 61850 EMC & Environmental Operating Conditions Class C for **Power Utility substations (KEMA)** ■ IEEE 1613 Class 2 Environmental Standard for **Power Utility Substations** ■ NEMA TS-2 & TEES for DC- and PoE-powered **traffic control equipment** ■ Military: MIL-STD-461G ■ Military: MIL-STD-810G ■ Marine: DNV ■ Mining: Directive 2006/21/EC ■ Telecom: NEBS, GR63 & GR1089, L3; ETSI 300 386, EN 301 489 ■ Railways: EN50155 and EN50121-4 Compliant ■ Vibration: IEC 60068-2-6 ■ Shock: IEC 60068-2-27 ■ Freefall: IEC 60068-2-32 ■ RoHS (Pb free) and WEEE compliant ■ Immunity:

	EN61000-4-2 (ESD) Level 4; EN61000-4-3 (RFI) Level 4 EN61000-4-4 (EFT) Level 4; EN61000-4-5 (Surge) Level 4 EN61000-4-6 (C. Susceptibility) Level 3 EN61000-4-8 (PF Magnetic Field) Level 4 EN61000-4-10 (Damp Osc.) Level 4 EN61000-4-11 (VDI) Class 3 EN61000-4-12 (Osc. Wave Im.) Level 3 EN61000-4-16 (I.C. CMD) Level 3 EN61000-4-29 VDSI on DC Input EN61000-6-2; EN61000-6-5 DT&T-NL, Immunity PS&SS
Mechanical	■ Chassis: May be rack-mounted or DIN rail-mounted ■ Material: Corrosion-resistant aluminum with powder coating ■ Dimensions: Width: 8.5 in (21.6 cm) Depth: 3.2 in (8.1 cm) Height: 8.5 in (21.6 cm) ■ Weight: 10 lb. (4.5 kg)
IP Rating	IP67
Warranty	5 years
Made in	USA