RhinoSwitch® REC21 Media Converter

The RhinoSwitch® REC21 Ethernet Media Converters are switches that are ideal for edge of network locations. They are built for harsh environments, such as power utility substations, industrial factory floor applications, outdoor traffic control boxes, and video surveillance structures. The RE Media Converters have models that are highly suitable for environments with extreme temperatures and challenges, such as EMC, shock, and vibration.

- **Combination of Media Converter and Ethernet Switch.**
- **Available in 100Mb.**
- **Two 10/100 RJ45 copper ports and one 100Mb fiber port (ST, SC, and LC)**
- **Ruggedized with compact design having extended operating temperatures of -40° to +85°C.**

Product Specifications:-

Type	REC21
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: REC21: 600 Mbps ■ Packet Buffer: 64KB ■ 1024 MAC addresses
RJ45 Copper Ports	■ RJ45 ports: IEEE 802.3 compliant ■ REC21: RJ45 speed & 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
Fiber Port Connectors	■ REC21: One 100Mb fiber LC port; port may be one of three fiber connector types: ST, SC, or LC. 2km multi-mode and 10km single mode fiber port models are available.
Power Input Options	■ AC: External AC-DC power adapter; Power input DC jack (8 to 15v) 2.5mm, center positive, with

	6 ft DC power cord AC: Input: 100-125Vac at 60 Hz, 215-240Vac at 50 Hz ■ DC Power input: Dual redundant power inputs ■ DC: Input voltage range (12, 24/28, 48V) DC: 9-60VDC ■ Power consumption: Typical with all ports linked and active 3 W (REC21)
Environmental	■ Operating temperature for all models: -40°C to +85°C continuously (guaranteed cold (-40°C) and hot (+85°C) starts) ■ Storage temperature for all models: -55°C to +125°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-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	■ Case: Fully enclosed, metallic case ■ Material: Corrosion-resistant aluminum with powder coating ■ Mounting: DIN-rail or panel mounted ■ **Note:** Optional RE-DIN-BRACKET is required for din mount. ■ Dimensions: Width: 3.6 in (9.1 cm) Depth: 3.2 in (8.1 cm) Height: 0.9 in (2.3 cm) ■ Weight: 1 lb. (0.45 kg)
IP Rating	IP32
Warranty	5 years
Made in	USA