VCL-MX-XW
Industrial Grade Ethernet Switch
IEC 61850-3 compliant
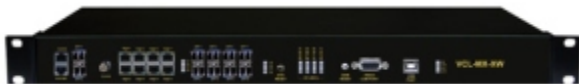
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Product Overview

VCL-MX-XW, Industrial Grade Ethernet, IEC 61850-3 complied Sub-Station Hardened Switch, is a flexible Ethernet Switch that is packaged in a 1U high, 19-inch rack-mountable shelf that can be installed in harsh environments. It requires no external fans or forced air cooling.

It offers a wide choice of 1+1 redundant power supply options which include 24VDC, -48VDC, 110-125VDC, 110VAC and 240VAC.

- 10 Port Sub-Station Hardened Switch
- User Side: 8 Fast Ethernet Ports: 8 x 10BaseT / 100BaseT / 100BaseFX full-duplex User Ethernet ports. All 8 User-side Ports - are individually configurable as either 10/110BaseT Electrical or 100BaseFX Optical ports, as required.
- Uplink / Network Side: 2 Gigabit Ethernet Ports: 1000BaseSX / LX Optical or 10/100/1000BaseT Electrical. Both Uplink / Network Ports - user configurable to either 1000Base Optical or 10/100/1000BaseT Electrical.

It is a fully managed Switch that offers 1+1 Ethernet link redundancy and QoS by implementing IEEE802.1p, 802.1Q and Differentiated Services (Diffserv) and packet priority classification protocols for traffic management and optimization.

Overview and Highlights

- Sub-Station Hardened Managed Switch designed to operate in rugged environments even in extreme (-40^{0}C to +70^{0}C) temperature conditions.
- Does not require any external fans or forced air cooling.
- Uplink / Network Ports: 2 User Selectable Gigabit Ethernet Fiber / Copper ports.
- Downlink / User Side Ports: 8 Fiber / 8 Copper Fast Ethernet ports - the user may select any 8 ports - 10Mbps/100Mbps BaseT or 100BaseFX in any configuration.

Power Supply Options

- Dual Redundant (AC + DC).
- 1+1 DC (-24V) power (18 to 40V DC).
- 1+1 DC (-48V) power (40 to 72V DC).
- 1+1 DC 110-125V power (90 to 135V DC).
- 1+1 AC power (100 to 240V AC, 50/60 Hz).
- AC or DC.
- EMI/EMC compliant.

External Alarms

- Dry Contact Relay.

Key Feature

- Sub-Station Hardened Design
- IEC 61850-3 and IEEE 1613 complied
- -40^{0}C to +70^{0}C operating temperature
- 1+1 redundant power supply
- Wide DC and AC voltage operating range
    - 24VDC to 72VDC,
    - 90VDC to 250VDC,
    - 85VAC to 240VAC.

Ethernet Port Features

- 8 x 10BaseT / 100BaseT / 100BaseFX full-duplex User Ethernet ports.
- All 8 User-side Ports - user configurable to either 10/110BaseT Electrical or 100BaseFX Optical ports.
- All 8 User-side Copper Ethernet Ports - Auto-negotiation, auto-MDI/MDIX.
- 2 Uplink / Network Ports (1000Base Optical) full-duplex Gigabit Ethernet ports.
- 2 Uplink / Network Ports (10/100/1000BaseT) full-duplex Ethernet ports.
- Ethernet packet forwarding at wire-speed, non-blocking.
- User programmable bandwidth rate control on a per port basis (Ingress / Egress Rate Limiting).
- Flow Control.
- Ethernet packet filter and prioritization on each of the ports (port based priority).
- Reliable Store-and-Forward operation with data integrity checking.
- Support s up to 1632 Byte Frames.
- 1+1 Ethernet Link Protection.
- Supports VLAN and IEEE802.1Q VLAN tagging for Management Port.
- IEEE802.1p, 802.1Q and Differential Services (DS) QoS
- NTP Client for automatic time updation.

Management Features

- RS232 serial console port.
- USB console port.
- In-band Ethernet (Telnet, SSH and TFTP) management.
- Reset Switch.
- Power LEDs.
- Real Time Clock (RTC).
- Automatic updating of RTC time standalone card - RTC shall update itself at user defined intervals from an NTP Server the user shall define the IP address of the NTP server).
- Supports command line interface with predictive command completion.
- Supports IEEE802.1x security.
- Password Protection.
- SNMP V2 Traps.

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