EX70900 Series

IEC 61850-3/IEEE 1613 Hardened Managed 8-port Gigabit Ethernet Switch



Overview

This product is discontinued as of 26th May 2020.click here for alternative product.

EtherWAN's EX70900 Series provides a Hardened Fully Managed 8-port switching platform combining high performance switching backbone with robust and secure management features required for mission critical and harsh environments where sustained connectivity is crucial.

Mountable on a DIN-Rail, the EX70900 Series is a full Gigabit hardened managed switch, featured with 6 ports of 10/100/1000BASE-TX, in combination with up to two SFP port options.

Users are able to access management features such as; port security, IGMP snooping, VLANs, GARP protocols, LACP to name a few, via web browser, Telnet, SNMP, RMON, TFTP, and RS-232 console interfaces. With its hardened-grade specifications and IEC 61850 certifications, the EX70900 Series is capable of operating under high EMI environments at the temperatures ranging from -40 to 75°C, making it an ideal choice for harsh applications.

EtherWAN — "When Connectivity is Crucial."

Spotlight

Full Gigabit Connectivity

» Managed Hardened 8-port Gigabit Ethernet switch with either copper, SC, ST or LC connectors available

Intelligent Data Management

» Optimize network performance with QoS, VLAN etc.

Compliance with IEC 61850-3/IEEE 1613

» For installations with high EMS requirements

Energy Efficient Ethernet (EEE)

» Supports IEEE 802.3az standard

Features

Management

» Interface
  • CLI, Telnet and Web Browser
  • SNMP v1/v2c/v3
» Firmware and configuration upgrade and backup via TFTP
» Supports DHCP Server/Client
» RMON (Remote monitoring): group 1, 2, 3, 9
» Port mirroring: TX/RX and both
» SFP transceivers support Digital Diagnostics Monitoring (DDM)
» NTP (Network Time Protocol) time synchronization
» IEEE 802.1ab LLDP (Link Layer Discovery Protocol)

Security

» MAC address filtering
  • Enable/disable port
» Storm control (broadcast and multicast types)
» IEEE 802.1x LAN access control
» Remote authentication through RADIUS
» SSH for CLI and Telnet security
» SSL for web security
» Multi-level user account/password against unauthorized configuration
» System log (remote/local)

Quality of Service (QoS)

» Priority Queues: 4 queues per port
» Traffic classification based on IEEE 802.1p CoS, DSCP, WRR (Weighted round robin) and strict mode
» Rate Limiting (Ingress/Egress)

Layer 2 Features

» Auto-negotiation for port speed and duplex mode
» Flow Control
  • IEEE 802.3x full duplex mode
  • Back-Pressure half duplex mode
» Redundant Protocol
  • IEEE 802.1D Spanning Tree Protocol (STP)
  • IEEE 802.1w Rapid Spanning Tree Protocol (RSTP)

- IEEE 802.1s Multiple Spanning Tree Protocol (MSTP)

» VLANs
- Port-based VLANs
- IEEE 802.1Q Tag VLANs (128 groups, 4096 VID)
- GVRP (GARP VLAN Registration Protocol)
- GMRP (GARP Multicast Registration Protocol)

» Link Aggregation
- Static Trunk (2 groups, support MAC base)
- IEEE 802.3ad Link Aggregation Control Protocol

» IGMP Snooping
- IGMP snooping v1/v2/v3

Performance

» Switching Capability: 16Gbps
» Packet Buffer Size: 1.5M bits
» MAC Address Table: 4K

Specifications

Technology

Standards

- IEEE 802.3 10BASE-T
- IEEE 802.3u 100BASE-TX/100BASE-FX
- IEEE 802.3ab 1000BASE-T
- IEEE 802.3az EEE
- IEEE 802.3z 1000BASE-SX/1000BASE-LX
- IEEE 802.3x Full duplex and flow control
- IEEE 802.1p QoS
- IEEE 802.1Q Tag VLANs
- IEEE 802.1w RSTP
- IEEE 802.1x Port-based Network Access Control

Forward and Filtering Rate

- 14,880pps for 10Mbps
- 148,810pps for 100Mbps
- 1,488,100pps for 1000Mbps

Packet Buffer Memory

- 1.5M bits

Processing Type

- Store-and-Forward
- Half-duplex back-pressure and IEEE 802.3x full-duplex flow control

Jumbo Frame

- 9720 bytes

Address Table Size

- 4096 MAC addresses

Power

Input

- Redundant power inputs:
  12-48VDC (Terminal Block)
  12VDC (DC Jack)

Power Consumption

• 10.2W Max., 0.85A@12VDC

Protection

• Reverse polarity protection

Mechanical

Casing

• Aluminum Case
• IP30

Dimensions

• 66 x 125 x 145mm (W x D x H)
(2.64" x 4.92" x 5.7")

Weight

• 1.1Kg (2.42lbs.)

Installation

• DIN-Rail (Top hat type35mm) or Wall mounting

Interface

Ethernet Port

• 10/100/1000BASE-TX: 8, 7, or 6 ports
• 1000BASE-SX/LX/SFP: 0, 1, or 2 ports

Console Port

• Port: One DB9 RS-232 port

LED Indicators

• Per Unit: Power Status (Power 1, Power 2, Power 3), Alarm
• Per Port: Link/Activity

Alarm Contact

• One relay output with current 1A@24VDC

Environment

Operating Temperature

• -40 to 75°C (14 to 167°F)
Tested @ -40 to 85°C(-40 to 185°F)

Storage Temperature

• -40 to 85°C (-40 to 185°F)

Ambient Relative Humidity

• 5% to 95% (non-condensing)

Regulatory Approvals

ISO

• Manufactured in an ISO 9001 facility

Safety

UL 508

EMI

FCC Part 15B Class A
EN 61000-6-4
EN 61000-3-2
EN 61000-3-3

EMS

EN 61000-6-2
• EN 61000-4-2 (ESD Standards)
• EN 61000-4-3 (Radiated RFI Standards)
• EN 61000-4-4 (Burst Standards)
• EN 61000-4-5 (Surge Standards)
• EN 61000-4-6 (Induced RFI Standards)
• EN 61000-4-8 (Magnetic Field Standards)

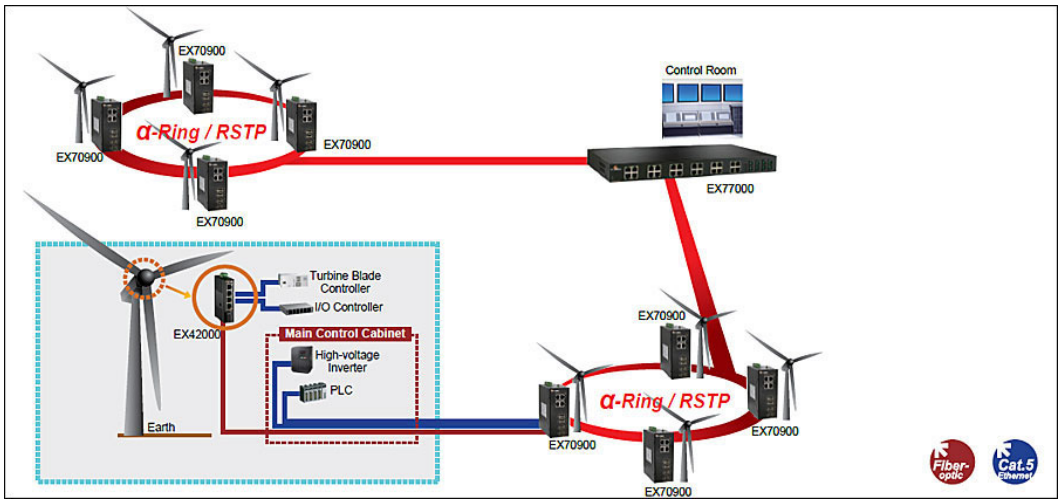
Environmental Test Compliance

IEC 60068-2-6 Fc (Vibration Resistance)
FED STD 101C Method 5007.1 (Free fall w/package)

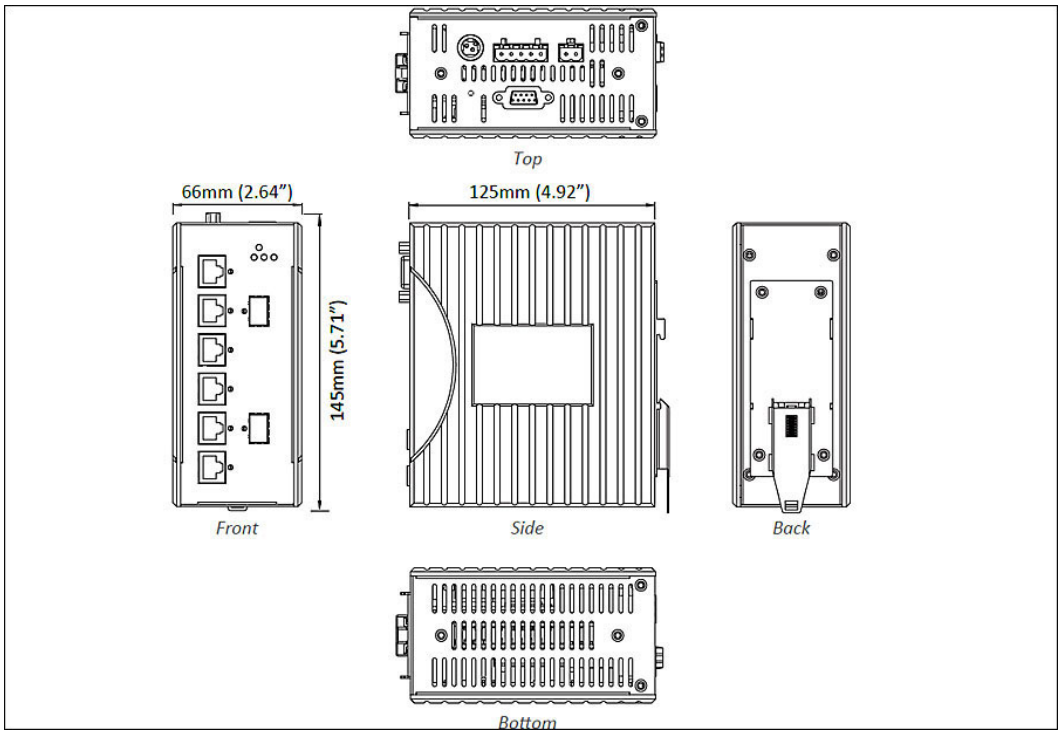
Industrial Compliance

IEC 61850-3/IEEE 1613
EN 50121-4

Application



Dimensions



Ordering Info

Model

EX70980-00B	8-Port 10/100/1000BASE-TX Managed Hardened Ethernet Switch
EX70971-0VB	7-Port 10/100/1000BASE-TX +1-Port Gigabit SFP Hardened Managed Ethernet Switch
EX70962-0VB	6-Port 10/100/1000BASE-TX +2-Port Gigabit SFP Hardened Managed Ethernet Switch
EX70962-0XB	6-Port 10/100/1000BASE-TX +2-Port Gigabit Fiber Hardened Managed Ethernet Switch

* DIN-Rail mounting kit included.

Gigabit Port Options (X)

3	1000BASE-SX (SC) - 550m
4	1000BASE-SX (SC) - 2Km
5	1000BASE-SX (ST) - 550m
A	1000BASE-LX (SC) - 10Km
B	1000BASE-LX (SC) - 20Km
R	1000BASE-BX (SC) WDM-TX: 1310nm/RX: 1550nm-20Km
S	1000BASE-BX (SC) WDM-TX: 1550nm/RX: 1310nm-20Km

* More Gigabit options are also available upon request.

Optional Accessories

HDR-30-24	30W/1.5A DIN-Rail 24VDC Industrial Power Supply
HDR-60-24	60W/2.5A DIN-Rail 24VDC Industrial Power Supply
EX41-145046-X	Power Supply 45W 12VDC with Open Wire (X) = 1: US, 2: EU, 3: UK, 4: AU, 5: JP, 6: SA
EX41-145044-X	Power Supply 45W 12VDC with Latch (X) = 1: US, 2: EU, 3: UK, 4: AU, 5: JP, 6: SA



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