

# **EX94000 Series**

Hardened Unmanaged 4 to 8-port 10/100BASE-TX and 1 to 2-port 100BASE-FX Ethernet Switch

















# **Overview**

EtherWAN's EX94000 Series is a hardened unmanaged Fast Ethernet switching platform, designed for easy deployment in harsh environments. The EX94000 Series supports 12 to 48VDC redundant power input, and also provides relay alarm while power failure or port link down occur. The EX94000 provides 4kV surge protection, and is designed for hazardous locations (Class 1 Div.2).

The EX94000 is equipped with eight Fast Ethernet ports, or a combination of Fast Ethernet copper ports and two 100FX ports for long distance connectivity. This versatile switch features 10/100Mbps transfer speeds, full/half-duplex auto-negotiation and auto MDI/MDIX operation allowing you to connect your network devices without hassles.

The EX94000 is feature-rich with full wire speed Fast Ethernet throughput, QoS (Quality of Service), IEEE802.3az EEE (Energy Efficient Ethernet) and Broadcast storm protection. The EX94000 Series is built with relay alarm to notify users when power fails or link down occurs. It also supports Broadcast storm protection by enabling the DIP switch. The 94000 Series is housed with DIN rail mountable metal compact case which is an ideal solution for applications in harsh environments.

EtherWAN — "When Connectivity is Crucial."



# **Spotlight**

# **+** Hardened Grade

• Supports -40 to 75°C (-40 to 167°F) operating temperature

# + Broadcast Storm Protection

 Enable/disable broadcast storm protection by DIP switch that provide another level of flexibility on industrial applications/li>

# + Fiber Connectivity

• Up to two 100BASE-FX ports with SC, ST, WDM and SFP options

# + High Surge Protection and Hazardous Location Certification

- Provides 4kV surge protection
- Designed for hazardous locations (Class 1 Div.2)

# + High Reliability

- Fanless design
- No moving parts



# **Specifications**

# + Technology

#### **Standards**

- IEEE 802.3u 100BASE-TX/FX
- IEEE 802.3x full-duplex flow control
- IEEE 802.3az Energy Efficient Ethernet
- IEEE 802.1p Quality of Service (QoS)

### Forward and Filtering Rate

- 14,880pps for 10Mbps
- 148,810pps for 100Mbps

### **Packet Buffer Memory**

• 448K bits

### **Processing Type**

- Store-and-Forward
- Auto Negotiation
- Half-duplex back-pressure and IEEE 802.3x fullduplex flow control
- Auto MDI/MDIX

### **Address Table Size**

• 1K MAC addresses

# + Interface

#### **Ethernet Ports**

- 10/100BASE-TX: 8, 6 or 4 ports
- 100BASE-FX: 0, 2 or 1 ports

#### **LED Indicators**

- Per Unit: Power 1 (Green), Power 2 (Green), Fault (Red)
- Per Port: Link/Activity (Green)

#### **DIP Switches**

- Enable/Disable Port fault alarm
- Enable/Disable Broadcast Storm Protection

#### **Alarm Contact**

- One relay output with current 1A@250VAC
- Supports normal close and normal open

# + Environmental

# Operating Temp.

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

# Storage Temp.

• -40 to 85°C (-40 to 185°F)

# **Relative Humidity**

• 5% to 95% (non-condensing)



# + Power

# **Input Voltage**

• 12-48VDC (Terminal Block)

# **Power Consumption**

• 12VDC@4.34W, 24VDC@4.57W, 48VDC@6.28W

#### **Protection**

• Reverse Polarity Protection

# + Mechanical

# **Casing Material**

• Aluminum Case

### **IP Rating**

• IP30

#### **Dimensions**

• 50 x 110 x 135mm (W x D x H) (1.97" x 4.33" x 5.31")

### Weight

• 0.62Kg (1.37lbs)

#### Installation

• DIN-Rail (Top hat type 35mm) or Panel mounting

# + Regulatory

#### ISO

• Manufactured in ISO-9001 facility

### **EMI**

- FCC Part 15B Class A
- VCCI Class A
- EN 61000-6-4
- EN 61000-3-2
- EN 61000-3-3
- EN 55022 Class A

#### **EMS**

- EN 61000-6-2
  - - EN 61000-4-2 (ESD)
  - - EN 61000-4-3 (Radiated RFI)
  - - EN 61000-4-4 (Burst)
    - EN 61000-4-5 (Surge)
       Signal ports: ±4kV line-to-earth
       DC power ports:
      - ±4kV line-to-earth
      - ±2kV line-to-line
  - - EN 61000-4-6 (Induced RFI)
  - - EN 61000-4-8 (Magnetic field)

### Safety

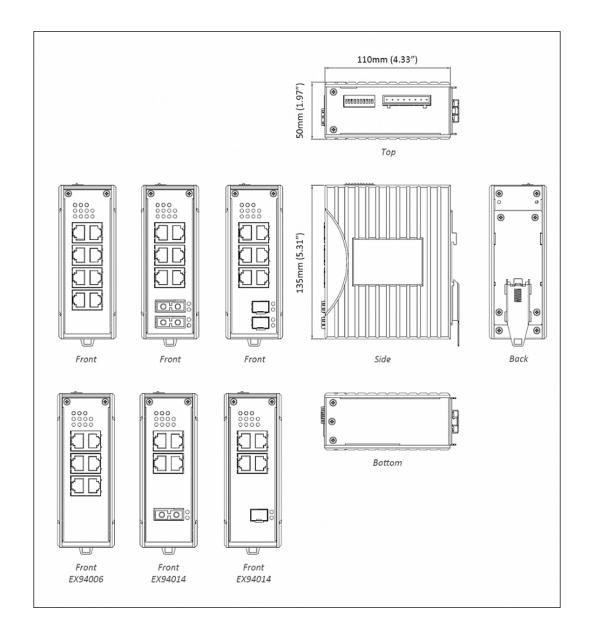
- UL 60950
- UL 62368

# **Environmental Test Compliance**

- IEC 60068-2-6 Fc (Vibration)
- IEC 60068-2-27 Ea (Shock)
- FED STD 101C Method 5007.1 (Free fall w/package)
  - Tested with Cross Weight and Drop High standard table



# **Dimensions**





# **Ordering Info**

# + Model

EX94008-00-1-AA	8-port 10/100BASE-TX Hardened Unmanaged Ethernet Switch
EX94006-00-1-AA	6-port 10/100BASE-TX Hardened Unmanaged Ethernet Switch
EX94026-XY-1-AA	6-port 10/100BASE-TX +2-port 100BASE-FX Hardened Unmanaged Ethernet Switch
EX94014-XY-1-AA	4-port 10/100BASE-TX +1-port 100BASE-FX Hardened Unmanaged Ethernet Switch

<sup>\*</sup> DIN-Rail mounting kit included.

# + 100FX Fiber Options (XY)

1A	Multi Mode (SC) - 2Km
1B	Multi Mode (ST) - 2Km
2A	Single Mode (SC) - 20Km
2D	Single Mode (ST) - 20Km
2E	Single Mode (SC) WDM-TX: 1310nm/RX: 1550nm-20Km
2G	Single Mode (SC) WDM-TX: 1550nm/RX: 1310nm-20Km
٧	100BASE SFP

<sup>\*</sup> More 100FX Fiber options also available upon request.

# + Optional Accessories

KP-AA96-480	Panel Mounting Kit
KR-BKEL900	Rack Mounting Kit
HDR-30-24	30W/1.5A DIN-Rail 24VDC Industrial Power Supply
HDR-60-24	60W/2.5A DIN-Rail 24VDC Industrial Power Supply
EDR-75-24	75W/3.2A DIN-Rail 24VDC Industrial Power Supply



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