

# EX33000 Series

Industrial Unmanaged 16-port 10/100BASE Ethernet Switch



## Overview

EtherWAN's EX33000 Series is an industrial unmanaged Fast Ethernet switching platform, designed for easy deployment in harsh environments.

The EX33000 Series is equipped with sixteen Fast Ethernet ports, or a combination of Fast Ethernet copper ports and two 100FX ports for long distance connectivity. Although unmanaged, the EX33000 is feature rich with full wire speed Fast Ethernet throughput, making the EX33000 Series a powerful network switch.

EtherWAN – "When Connectivity is Crucial."

## Spotlight

- **Industrial Grade**
  - Supports -10 to 60°C (14 to 140°F) operating temperature
- **Versatile mounting Options**
  - Supports DIN-Rail, panel and rack mounting
- **Fiber Connectivity**
  - Up to two 100BASE-FX ports with SC, ST and WDM options

# Hardware Specifications

## Technology

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### Standards

- IEEE 802.3, 10BASE-T
- IEEE 802.3u 100BASE-TX/100BASE-FX
- IEEE 802.3x Full duplex and flow control

### Forward and Filtering Rate

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

### Packet Buffer Memory

- 1.625M bits

### Processing Type

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

### Address Table Size

- 4096 MAC addresses

### Latency

- Less than 10µs

## Power

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### Input

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

### Power Consumption

- 7.4W Max. 0.6A@12VDC, 0.3A@24VDC, 0.15A@48VDC

## Mechanical

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### Casing

- Aluminum Case
- IP30

### Dimensions

- 69 x 110 x 135mm (W x D x H)  
(2.72" x 4.33" x 5.31")

### Weight

- 0.87Kg (1.92lbs.)

### Installation

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

## Interface

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### Ethernet Ports

- 10/100BASE-TX: 16, 15 or 14 ports
- 100BASE-FX: 0, 1 or 2 ports

### LED Indicators

- Per Unit: Power 1 (Green), Power 2 (Green), Power 3 (Green)
- Per Port: Link/Act

### Alarm Contact

- One relay output with current 1A@24VDC

## Environment

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### Operating Temperature

- -10 to 60°C (14 to 140°F)  
Tested @ -20 to 70°C (-4 to 158°F)

### Storage Temperature

- -40 to 85°C (-40 to 185°F)

### Ambient Relative Humidity

- 5% to 95% (non-condensing)

## Regulatory Approvals

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### ISO

- Manufactured in an ISO 9001 facility

### EMI

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#### FCC Part 15B Class A

#### VCCI Class A

#### EN 61000-6-4

#### EN 55022

#### EN 61000-3-2

#### EN 61000-3-3

### Safety

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#### UL 508

### EMS

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#### 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 Compliances

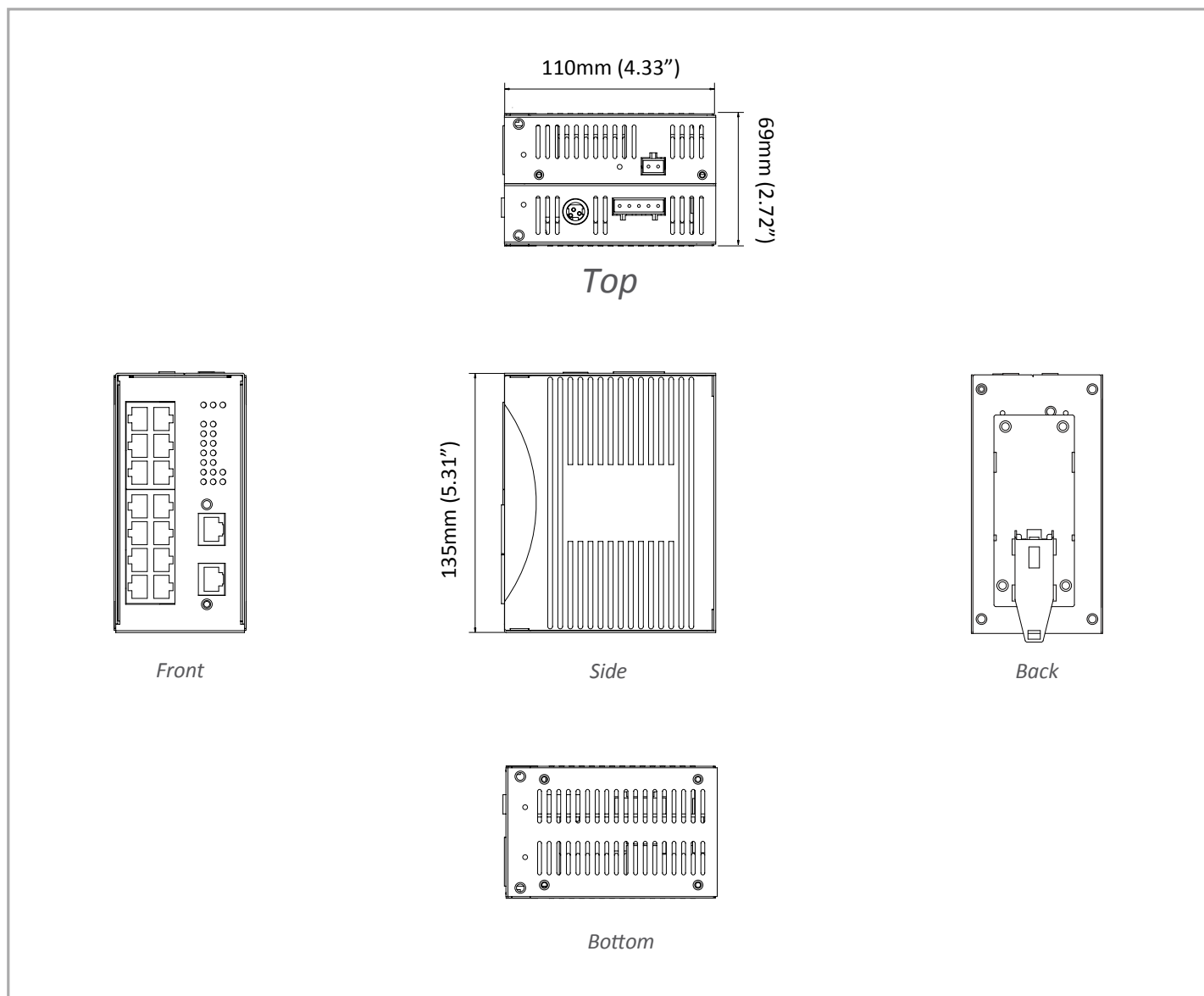
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#### IEC 60068-2-6 Fc (Vibration)

#### IEC 60068-2-27 Ea (Shock)

#### FED STD 101C Method 5007.1 (Free fall w/package)

## Dimensions



## Ordering Information

### Model

<b>EX33160-00B</b>	16-port 10/100BASE-TX Industrial Unmanaged Ethernet Switch
<b>EX33151-X0B</b>	15-port 10/100BASE-TX +1-port 100BASE-FX Industrial Unmanaged Ethernet Switch
<b>EX33142-X0B</b>	14-port 10/100BASE-TX +2-port 100BASE-FX Industrial Unmanaged Ethernet Switch

\* DIN-Rail mounting kit included.

## Ordering Information - continued

### 100FX Fiber Options (X)

<b>1</b>	Multi Mode (SC) - 2Km
<b>2</b>	Multi Mode (ST) - 2Km
<b>6</b>	Multi Mode (SC) WDM-TX: 1310nm/RX: 1550nm-2Km
<b>7</b>	Multi Mode (SC) WDM-TX: 1550nm/RX: 1310nm-2Km
<b>8</b>	Multi Mode (SC) WDM-TX: 1310nm/RX: 1550nm-5Km
<b>9</b>	Multi Mode (SC) WDM-TX: 1550nm/RX: 1310nm-5Km
<b>A</b>	Single Mode (SC) - 20Km
<b>B</b>	Single Mode (SC) - 40Km
<b>H</b>	Single Mode (ST) - 20Km
<b>P</b>	Single Mode (SC) WDM-TX: 1310nm/RX: 1550nm-20Km
<b>Q</b>	Single Mode (SC) WDM-TX: 1550nm/RX: 1310nm-20Km
<b>R</b>	Single Mode (SC) WDM-TX: 1310nm/RX: 1550nm-40Km
<b>S</b>	Single Mode (SC) WDM-TX: 1550nm/RX: 1310nm-40Km

### Optional Accessories

<b>KP-AA96-480</b>	Panel Mounting Kit
<b>KR-BK-43-400</b>	Rack Mounting Kit
<b>HDR-30-24</b>	30W/1.5A DIN-Rail 24VDC Industrial Power Supply
<b>HDR-60-24</b>	60W/2.5A DIN-Rail 24VDC Industrial Power Supply
<b>EDR-75-24</b>	75W/3.2A DIN-Rail 24VDC Industrial Power Supply
<b>EX41-145046-X</b>	Power Supply 45W 12VDC with Open Wire (X) = 1: US, 2: EU, 3: UK, 4: AU, 5: JP, 6: SA
<b>EX41-145044-X</b>	Power Supply 45W 12VDC with Latch (X) = 1: US, 2: EU, 3: UK, 4: AU, 5: JP, 6: SA