

# EX47000 Series

IEC 61850-3/IEEE 1613 Hardened Unmanaged 8-port 10/100BASE Ethernet Switch



## Overview

EtherWAN's EX47000 Series is a hardened unmanaged Fast Ethernet switching platform, designed for easy deployment in harsh environments.

The EX47000 Series is equipped with 8 Fast Ethernet ports, with a combination of Fast Ethernet copper ports and 100FX ports for long distance connectivity. Although unmanaged, the EX47000 is feature-rich with full wire speed Fast Ethernet throughput, making the EX47000 Series a powerful network switch. With its hardened-grade specifications and IEC 61850 & IEEE 1613 certifications, the EX47000 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

### • Hardened Grade

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

### • Versatile mounting Options

- DIN-Rail or panel 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

- 448K 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

- 2048 MAC addresses

## Power

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### Input

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

### Power Consumption

- 6W Max. 12VDC@0.5A, 24VDC@0.25A, 48VDC@0.125A

### Protection

- Reverse polarity protection

## Mechanical

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### Casing

- Aluminum Case
- IP30

### Dimensions

- 60 x 125 x 145mm (W x D x H)  
(2.36" x 4.92" x 5.7")

### Weight

- 1Kg (2.2lbs.)

### Installation

- DIN-Rail (Top hat type 35mm) or Panel 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), Fault (Red)
- Per Port: Link/Act (Green), 100M (Green)

### Alarm Contact

- One relay output with current 1A@24VDC

## Environment

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### Operating Temperature

- -40 to 75°C (-40 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

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### ISO

- Manufactured in an ISO 9001 facility

### EMI

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#### FCC Part 15B Class A

#### EN 61000-6-4

#### VCCI Class A

#### EN 55022 Class A

### EMS

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#### EN 61000-6-2

- EN 61000-4-2 (ESD Standards)
- EN 61000-4-3 (Radiated FRI 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)

#### EN 55024

### Environmental Test Compliance

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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)

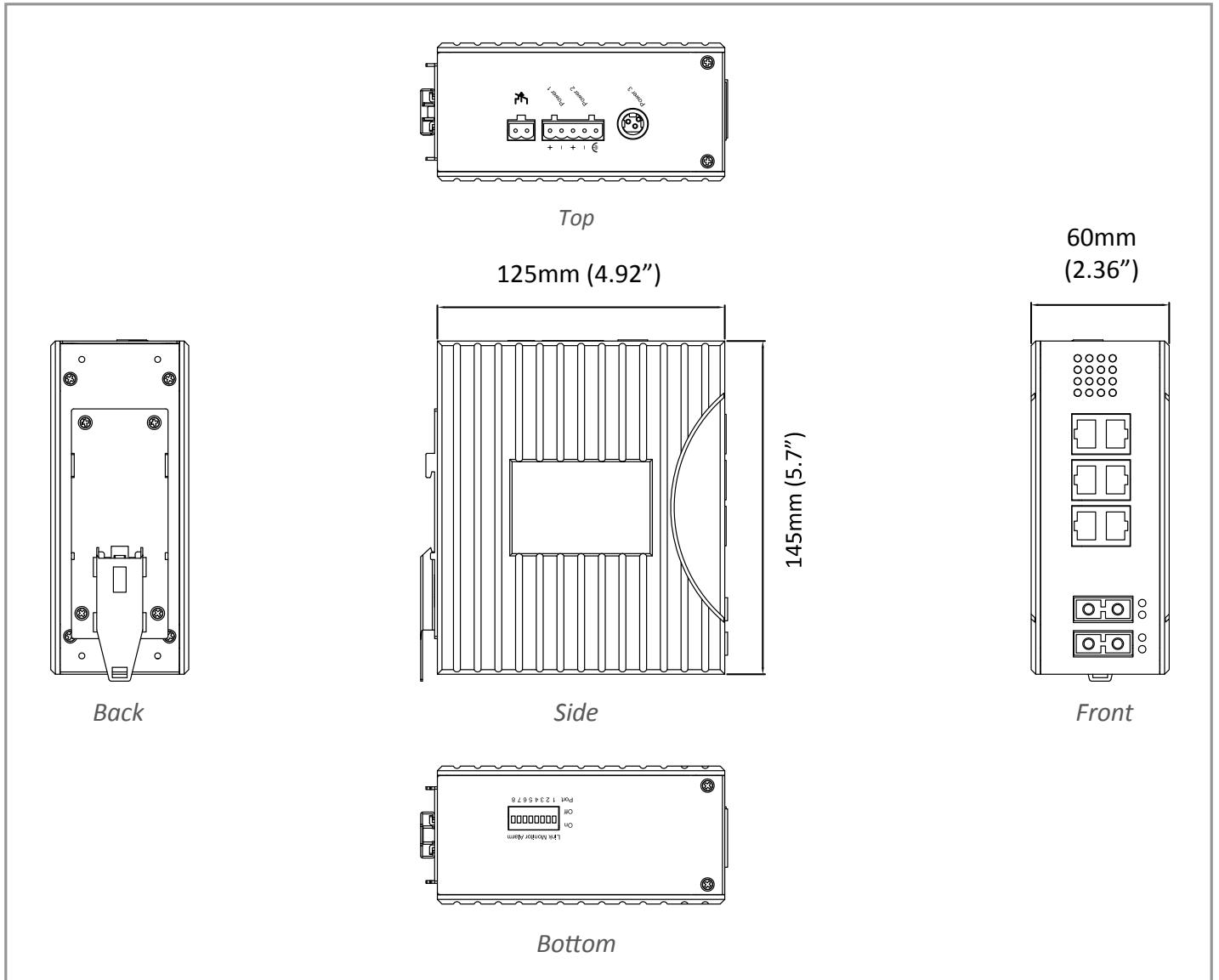
### Industrial Compliance

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#### IEC 61850/IEEE 1613

#### EN 50121-4

# Dimensions



## Ordering Information

### Model

<b>EX47080-00B</b>	8-port 10/100BASE-TX Hardened Unmanaged Ethernet Switch
<b>EX47062-X0B</b>	6-port 10/100BASE-TX +2-port 100BASE-FX Hardened Unmanaged Ethernet Switch
<b>EX47061-X0B</b>	6-port 10/100BASE-TX +1-port 100BASE-FX Hardened Unmanaged Ethernet Switch
<b>EX47042-X0B</b>	4-port 10/100BASE-TX +2-port 100BASE-FX Hardened Unmanaged Ethernet Switch
<b>EX47041-X0B</b>	4-port 10/100BASE-TX +1-port 100BASE-FX Hardened Unmanaged Ethernet Switch
<b>EX47026-X0B</b>	2-port 10/100BASE-TX +6-port 100BASE-FX Hardened Unmanaged Ethernet Switch

\* DIN-Rail mounting kit included.

### 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

\* More 100FX Fiber options also available upon request.

### Optional Accessories

<b>KP-AA96-480</b>	Panel 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