

EX47000 Series

IEC61850-3/IEEE1613 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 IEC61850 & IEEE1613 certifications, the EX47000 Series is capable of operating under high EMI environments at the temperatures ranging from -40°C to 75°C, making it an ideal choice for harsh applications.

EtherWAN – "When Connectivity is Crucial."

Spotlight

- **Hardened Grade**
 - Supports -40°C to 75°C (-40°F 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

Standards

- IEEE802.3, 10BASE-T
- IEEE802.3u 100BASE-TX/100BASE-FX
- IEEE802.3x 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 IEEE802.3x full-duplex flow control
- Auto MDI/MDIX

Address Table Size

- 2048 MAC addresses

Power

Input

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

Power Consumption

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

Protection

- Reverse polarity protection

Mechanical

Casing

- Aluminum Case
- IP30

Dimensions

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

Weight

- 1Kg (2.2lbs.)

Installation

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

Interface

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

Operating Temperature

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

Storage Temperature

- -40°C to 85°C (-40°F to 185°F)

Ambient Relative Humidity

- 5% to 95% (non-condensing)

Regulatory Approvals

ISO

- Manufactured in an ISO 9001 facility

EMI

FCC Part 15B, Class A

EN61000-6-4

VCCI, Class A

EN 55022, Class A

EMS

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

IEC 60068-2-6 Fc (Vibration)

IEC 60068-2-27 Ea (Shock)

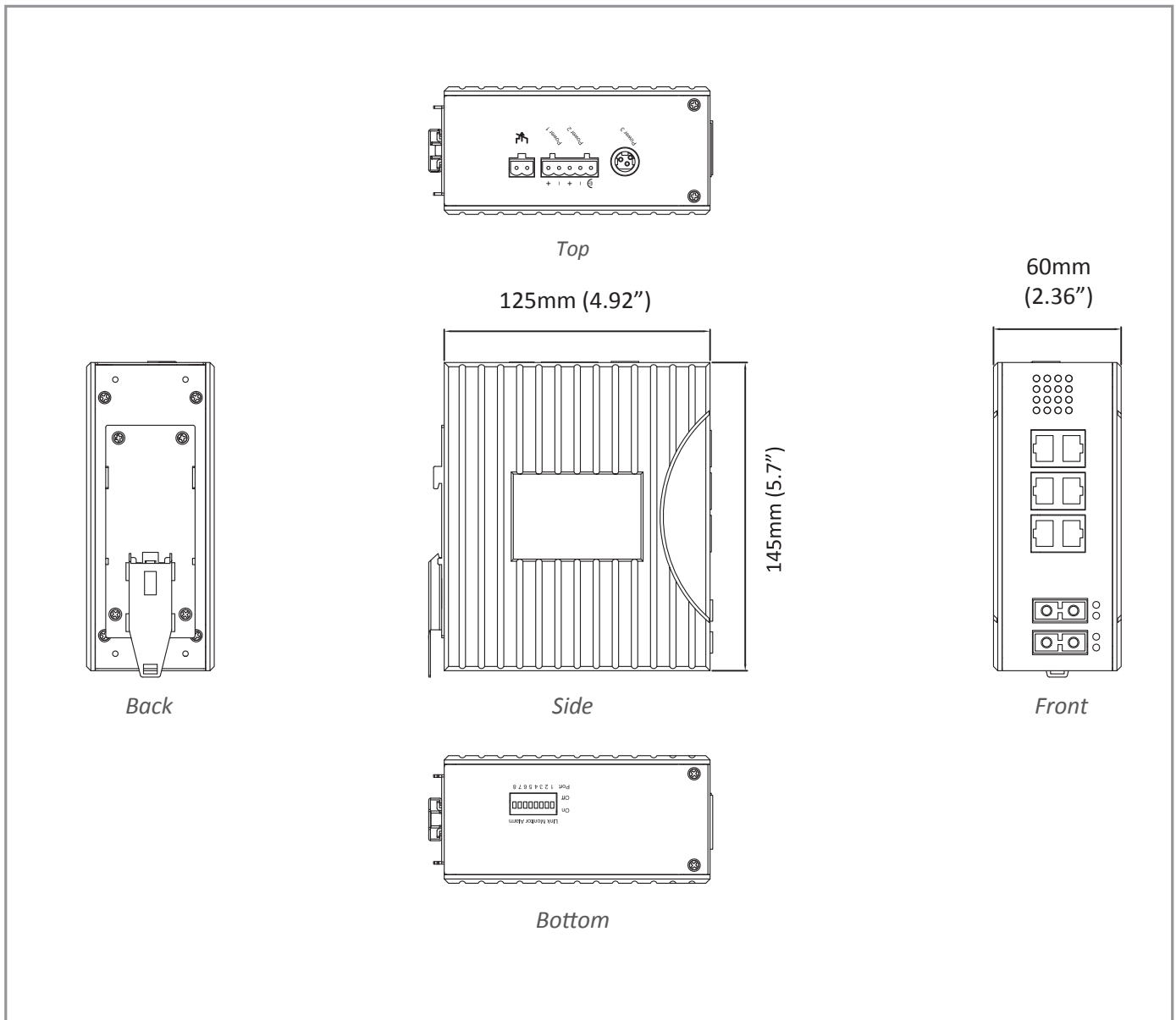
FED STD 101C Method 5007.1 (Free fall w/ package)

Industrial Compliance

IEC 61850 / IEEE1613

EN 50121-4

Dimensions



Ordering Information

Model

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

* DIN-Rail mounting kit included

Ordering Information - continued

100FX Fiber Options (X)

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

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

Optional Accessories

| | |
|--------------------|---|
| KP-AA96-480 | Panel mounting kit |
| DR-30-24 | 30W/1.5A DIN-Rail 24VDC Industrial Power Supply (for Terminal Block) |
| DR-60-24 | 60W/2.5A DIN-Rail 24VDC Industrial Power Supply (for Terminal Block) |
| DR-75-24 | 75W/3.2A DIN-Rail 24VDC Industrial Power Supply (for Terminal Block) |
| DR-120-24 | 120W/5A DIN-Rail 24VDC Industrial Power Supply (for Terminal Block) |
| 41-136046-X | 36W/3A 12VDC hardened power adapter with open wire in aluminum housing (for Terminal Block) (X) = 1: US, 2: EU, 3: UK, 4: AU, 5: JP, 6: SA |
| 41-136044-X | 36W/3A 12VDC hardened power adapter with latched DC Jack in aluminum housing (for DC Jack) (X) = 1: US, 2: EU, 3: UK, 4: AU, 5: JP, 6: SA |