EX46100 Series

Hardened Web-smart 8-port 10/100BASE High Power PoE (4 x PoE) Ethernet Switch

EtherWAN

Overview

EtherWAN's EX46100 Series provides a hardened 8-port switching platform supporting IEEE802.3af+ Power over Ethernet, high performance switching with robust features required for mission-critical and harsh environments where sustained connectivity is crucial.

The EX46100 Series is equipped with 4 10/100BASE-TX PoE ports, in combination with two 100FX Fiber options.

The IEEE802.3af+ PoE ports provide up to 30W/port with a total power budget of 120W, making the switch truly versatile for connecting with PoE Powered Devices (PD) with different bandwidth and power consumption requirements such as outdoor PTZ dome cameras, wireless access points, and way-side communication devices.

Users are able to access management features such as QoS based on 802.1p, DSCP, and IP precedence. With the hardened specifications, the EX46100 Series is designed to operate at -40°C to 75°C in harsh environments where high ESD, shock and vibration may be present.

Spotlight

- **Hardened Grade**
  ◦ Supports -40°C to 75°C (-40°F to 167°F) operating temperature

- **PoE Connectivity**
  ◦ Port 1 to 4 supports IEEE802.3af+ Power over Ethernet

- **Fiber Connectivity**
  ◦ Up to two 100BASE-FX ports with SC and ST options

- **Web-Managed Interface**
  ◦ Comprehensive QoS based on 802.1p, DSCP, and IP precedence

Hardware Specifications

Technology

Standards
- IEEE802.3 10BASE-T
- IEEE802.3u 100BASE-TX/100BASE-FX
- IEEE802.3x Full duplex and flow control
- IEEE802.3af+ Power over Ethernet (PoE)

Forward and Filtering Rate
- 14,880pps for 10Mbps
- 148,810pps for 100Mbps

Packet Buffer Memory
- 1M 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
- 1024 MAC addresses

Power

Input
- Redundant power inputs:
  Terminal Block: 47 - 57VDC
  DC Jack: 47 - 57VDC

Power Consumption
- Device: Max. 10W (without PoE)
- PoE power budget (depends on power input): 120W Max.

PoE Power Output
- Port 1 to 4
- IEEE802.3af+: up to 30W/port, 47 - 57VDC, 600mA Max.

Protection
- Reverse polarity protection

Mechanical

Casing
- Aluminum case
- IP30

Dimensions
- 68mm (W) x 110mm (D) x 135mm (H)
  (2.68" (W) x 4.33" (D) x 5.31" (H))

Weight
- 1Kg (2.2lbs.)

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

Interface

Ethernet Ports
- 10/100BASE-TX: 8, 7 or 6 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 (Green)
- Per PoE port: PoE Status (Amber)

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)

Web-smart Function Operating Temperature
- -20°C to 75°C (-4°F to 167°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 ISO9001 facility

EMI

FCC Part 15B, Class A

EN61000-6-4

EN55022 Class A

EMS

EN61000-6-2
- EN61000-4-2 (ESD Standards)
- EN61000-4-3 (Radiated FRI Standards)
- EN61000-4-4 (Burst Standards)
- EN61000-4-5 (Surge Standards)
- EN61000-4-6 (Induced RFI Standards)
- EN61000-4-8 (Magnetic Field Standards)

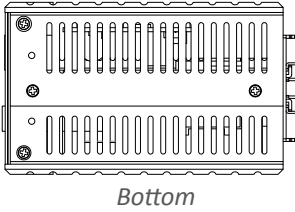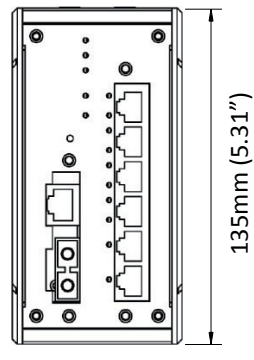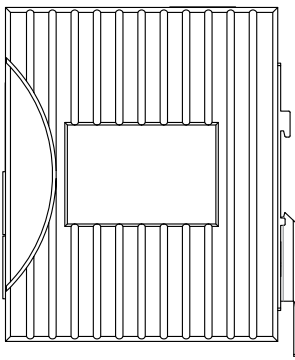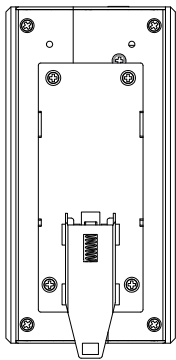### Environmental Test Compliance

IEC60068-2-6 Fc (Vibration)

IEC60068-2-27 Ea (Shock)

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

Industrial Compliance

NEMA TS2

Dimensions

110mm (4.33")

68mm (2.68")

Top

Back

Side

135mm (5.31")

Front

Bottom
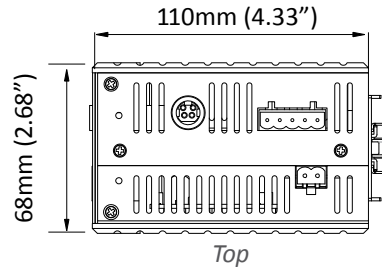
Ordering Information

Model

EX46180-00B	Hardened Web-smart 8-port 10/100BASE-TX PoE+ Ethernet Switch
EX46171-X0B	Hardened Web-smart 7-port 10/100BASE-TX + 1-port 100BASE-FX PoE+ Ethernet Switch
EX46162-X0B	Hardened Web-smart 6-port 10/100BASE-TX + 2-port 100BASE-FX PoE+ Ethernet Switch

* DIN-Rail mounting kit included

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
KR-BK-43-400	Rack Mounting Kit
DR-120-48	120W/2.5A DIN-Rail 48VDC Industrial Power Supply
SDR-240-48	240W/5A DIN-Rail 48VDC Industrial Power Supply