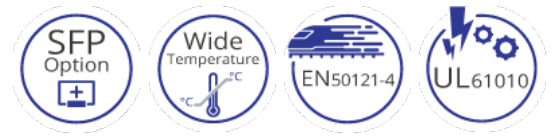


# EL8100 Series

Hardened 10/100/1000BASE-TX to 1000BASE-SX/LX/BX Media Converter



## Overview

The EL8100 Series provides media conversion between 10/100/1000BASE-TX and 1000BASE-SX/LX/BX Fiber. Built specifically for mission critical applications in harsh environments, the EL8100's hardened design features high shock & vibration resistance, electrical noise immunity, wide operating temperature range from -40 to 75°C (-40 to 167°F), and aluminum housing. With two power inputs, link down alarming, Link-Fault-Pass-Through and a wide range of fiber connectivity options, the EL8100 is the ideal media converter for environments where connectivity is crucial.

EtherWAN — "When Connectivity is Crucial."

## Spotlight

### Full Gigabit bandwidth and Jumbo frames

- » 10/100/1000BASE-T and 1000BASE-SX/LX/BX Ethernet transmission conversion
- » 1000Mbps Full duplex and full wire-speed forwarding rate
- » Jumbo frames up to 10K bytes to increase throughput and transmission efficiency

### Port Failure Alarm

- » Relay alarm configured by DIP switch to notify users when power fails or link is down

### Hardened Grade

- » Supports -40 to 75°C (-40 to 167°F) operating temperature
- » Redundant power inputs on terminal block connector
- » Supports DIN-Rail mounting

### Link-Fault-Pass-Through (LFPT)

- » Provides constant monitoring of the links connected to the media converters
- » If a copper or a fiber link fails, the media converter will pass the fail state on throughout the link, disabling the fiber link and the copper link on the opposite end

# Specifications

## Technology

### Standards

- IEEE 802.3 10BASE-T
- IEEE 802.3u 100BASE-TX
- IEEE 802.3ab 1000BASE-T

### Forward and Filtering Rate

- 14,880pps for 10Mbps
- 148,810pps for 1000Mbps
- 1,488,100pps for 1000Mbps

### Processing Type

- Auto Negotiation
  - Auto MDI/MDIX
- 

## Power

### Input

- 12-48VDC

### Power Consumption

- 0.912W Max, 76mA@12VDC, 38mA@24VDC, 19mA@48VDC

### Protection

- Overload Current Protection
  - Reverse Polarity Protection
- 

## Mechanical

### Casing

- Aluminum Case
- IP30

### Dimensions

- 35.8 x 90 x 100mm (W x D x H)

(1.41" x 3.54" x 3.94")

### **Weight**

- 0.23Kg (0.51lbs.)

### **Installation**

- DIN-Rail
- 

## **Interface**

### **Ethernet Port**

- 10/100/1000BASE-TX: 1 port

### **LED Indicators**

- Per Unit: Power 1, Power 2, Fault, LFPT
- Per Port: Link/Activity

### **DIP Switch**

- No.1: LFPT On/Off
- No.2: Alarm for copper port On/Off
- No.3: Alarm for fiber port On/Off
- No.4: Auto-negotiation for fiber port On/Off

### **Alarm Contact**

- Relay contact rating with current 0.6A/30VDC
- 

## **Environment**

### **Operating Temperature**

- -40 to 75°C (-40 to 167°F)

### **Storage Temperature**

- -40 to 85°C (-40 to 185°F)

### **Ambient Relative Humidity**

- 5% to 95% (non-condensing)
- 

## **Regulatory Approvals**

## ISO

- Manufactured in an ISO 9001 facility

## Safety

UL 61010

## Industrial Compliance

EN 50121-4

## EMI

FCC Part 15B Class A

VCCI Class A

EN 55032

EN 61000-3-2

EN 61000-3-3

EN 61000-6-3

## EMS

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 Compliance

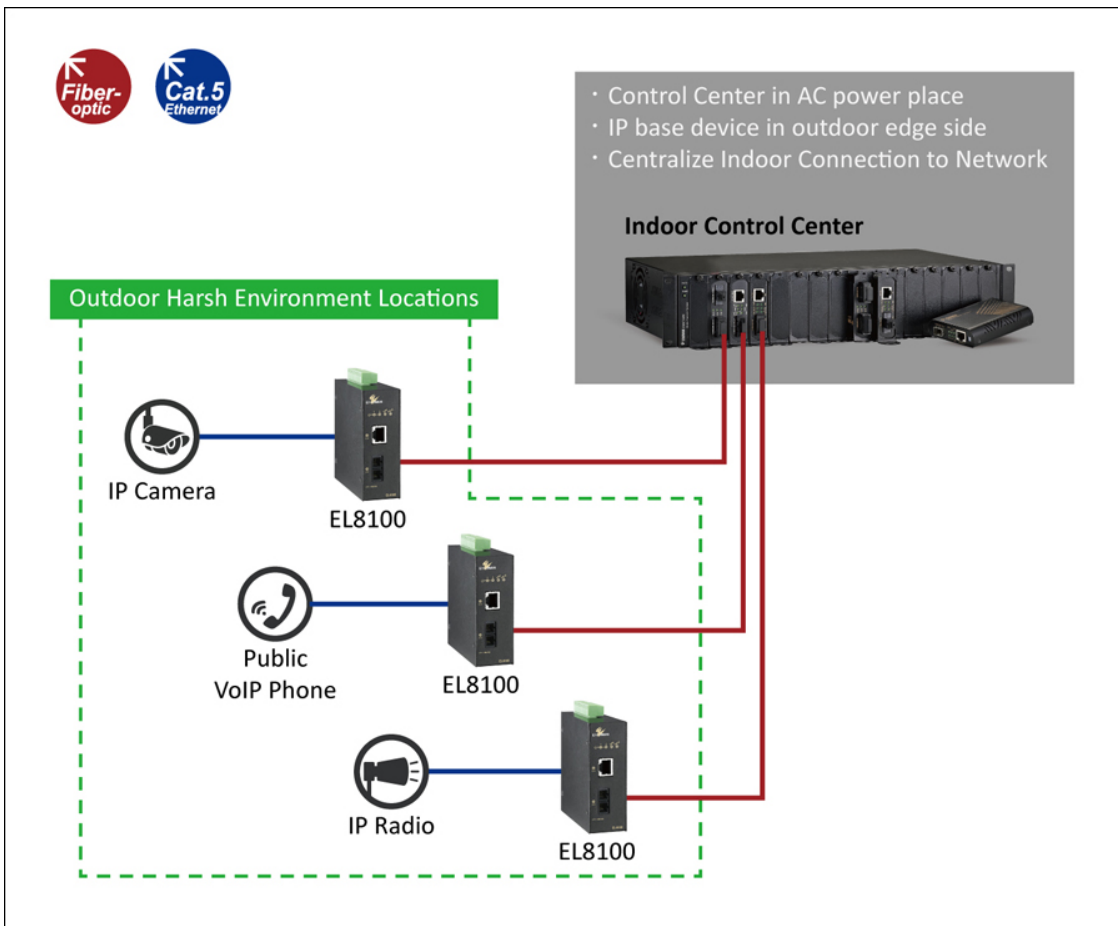
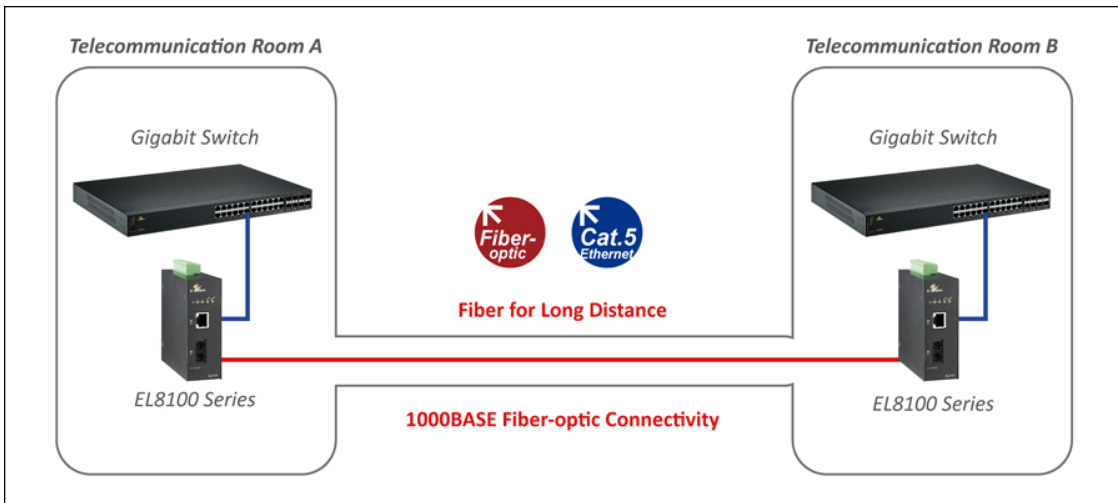
IEC 60068-2-6 Fc (Vibration Resistance)

IEC 60068-2-27 Ea (Shock)

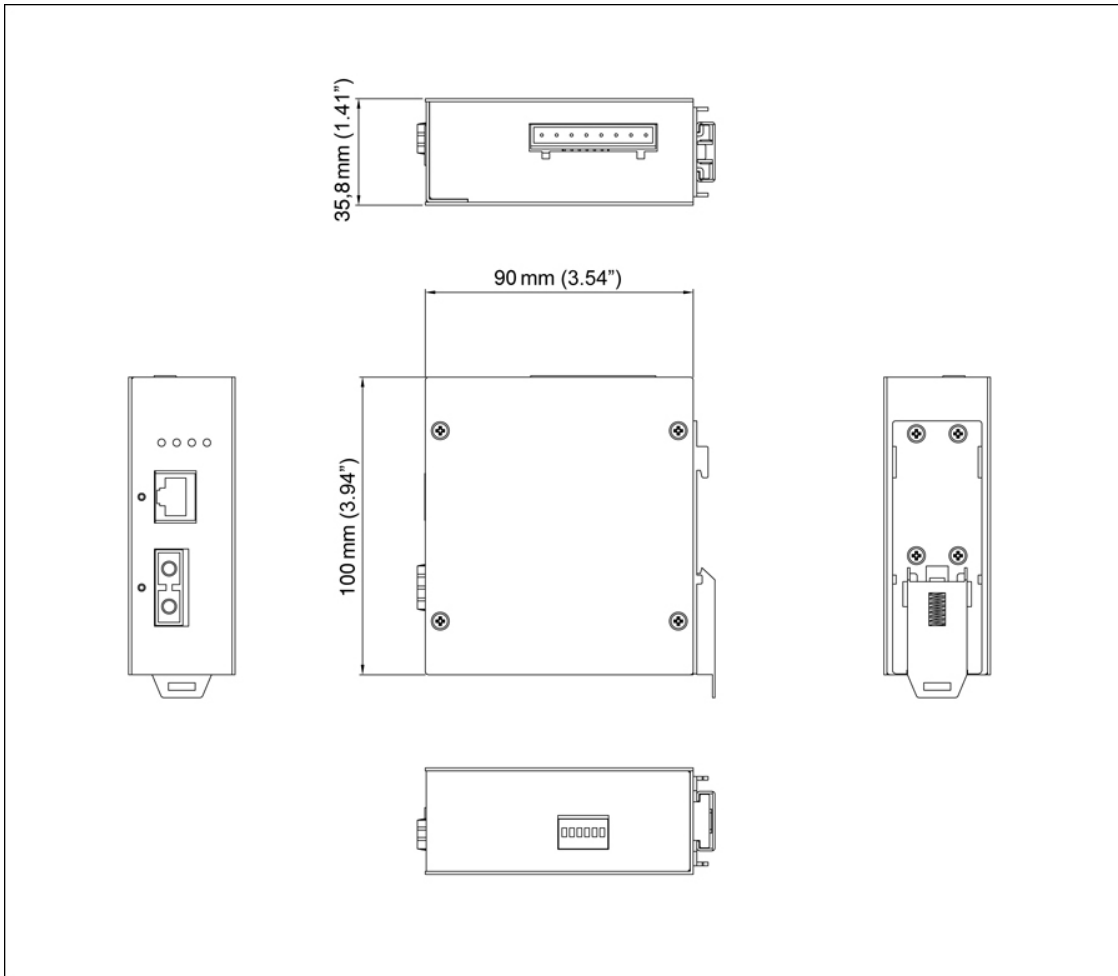
FED STD 101C Method 5007.1 (Free fall w/package)

---

# Application



## Dimensions



## Ordering Info

### Model

|                   |  |
|-------------------|--|
| <b>EL8100-X1E</b> | 10/100/1000BASE-TX to 1000BASE-SX/LX/BX Hardened Media Converter |
|-------------------|--|

### Gigabit Fiber Options (X)

|          |   |
|----------|---|
| <b>3</b> | 1000BASE-SX (SC) - 550m                         |
| <b>4</b> | 1000BASE-SX (SC) - 2Km                          |
| <b>5</b> | 1000BASE-SX (ST) - 550m                         |
| <b>A</b> | 1000BASE-LX (SC) - 10Km                         |
| <b>B</b> | 1000BASE-LX (SC) - 20Km                         |
| <b>I</b> | 1000BASE-LX (ST) - 20Km                         |
| <b>R</b> | 1000BASE-BX (SC) WDM-TX: 1310nm/RX: 1550nm-20Km |
| <b>S</b> | 1000BASE-BX (SC) WDM-TX: 1550nm/RX: 1310nm-20Km |

\* More Gigabit options are also available upon request.

