

# 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 + Hardened Grade

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

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

### + Port Failure Alarm

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

### + 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 100Mbps

1,488,100pps for 1000Mbps

#### Processing Type

Auto Negotiation

Auto MDI/MDIX

### + Interface

#### Ethernet Ports

10/100/1000BASE-TX: 1 port

#### LED Indicators

Per Unit: Power 1, Power 2, Fault, LFPT

Per Port: Link/Activity

#### DIP Switches

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

## + 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

## + 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

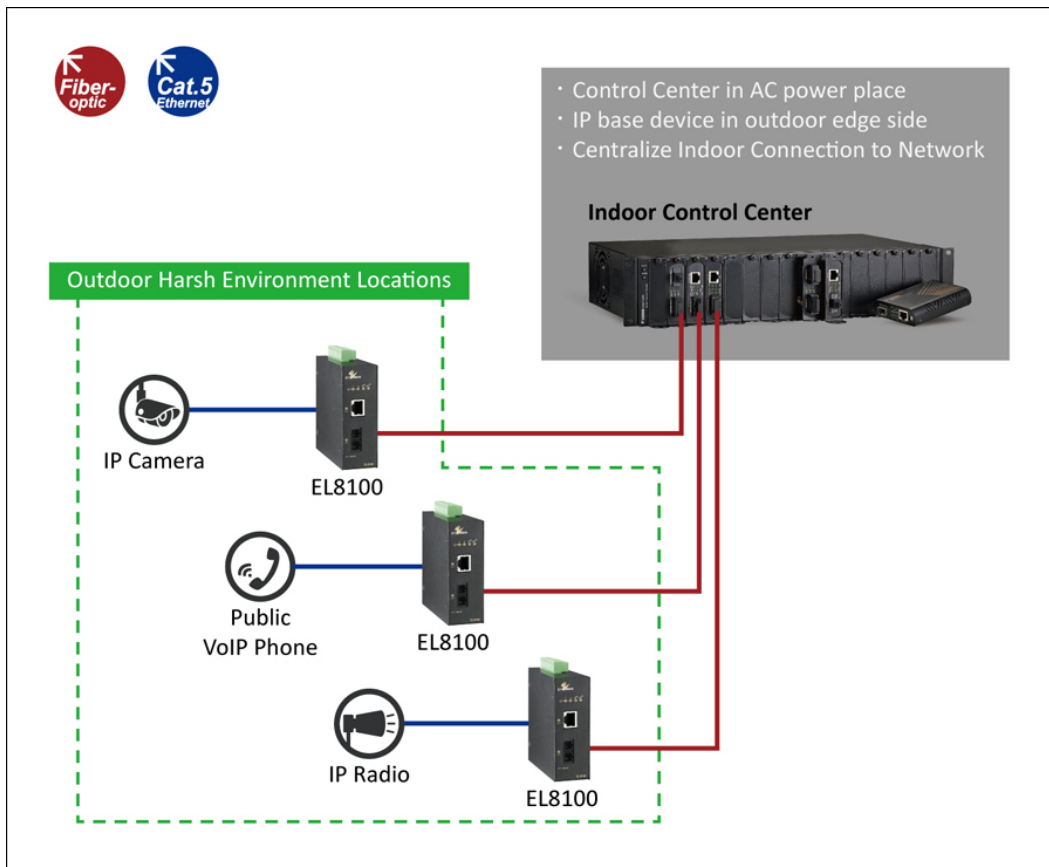
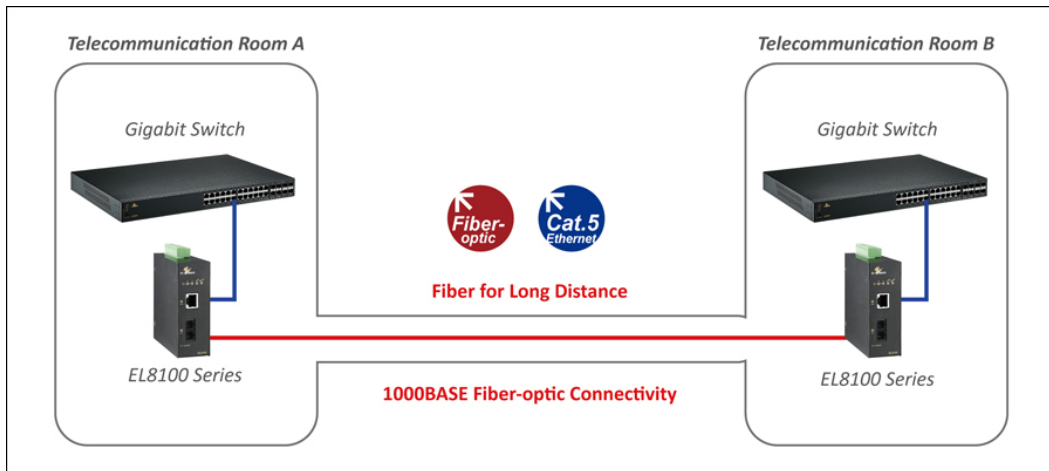
**EMI**  
FCC Part 15B Class A  
VCCI Class A  
EN 55032  
EN 61000-3-2  
EN 61000-3-3  
EN 61000-6-3

**EMS**  
EN 61000-6-2

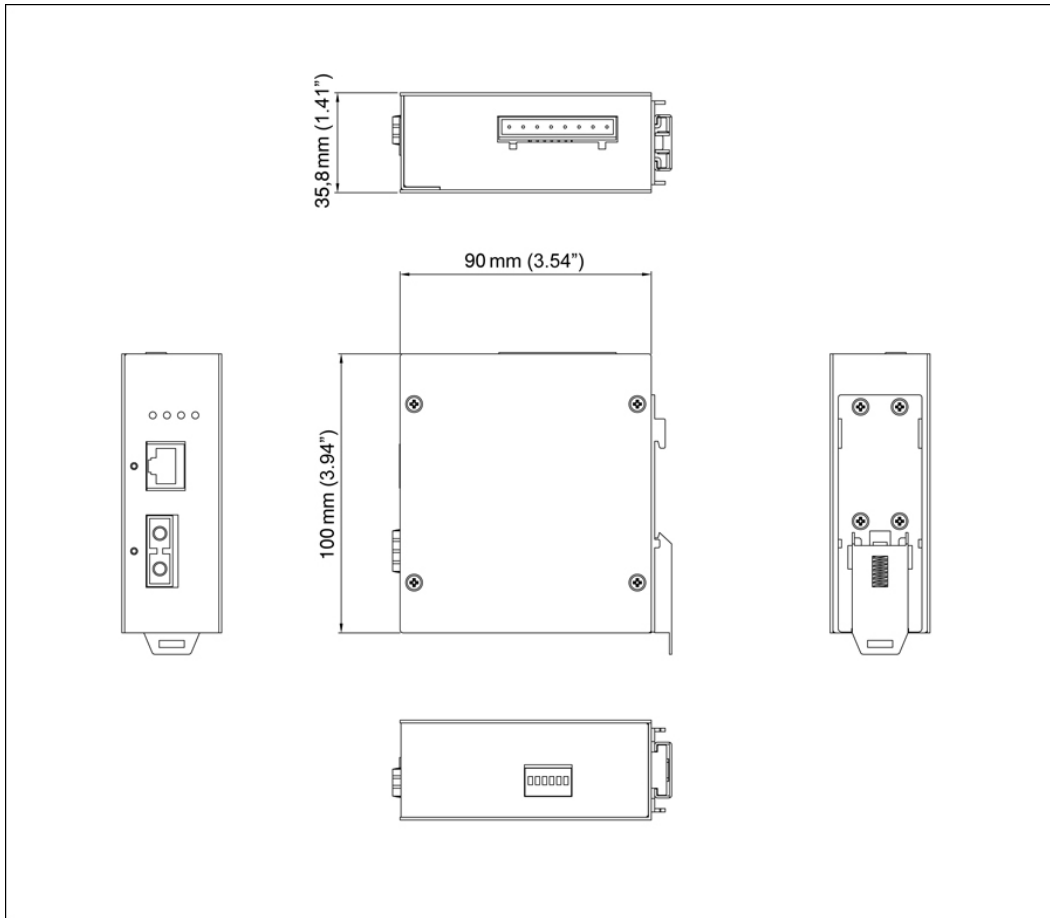
- EN 61000-4-2 (ESD Standards)
- EN 61000-4-3 (Radiated FRI Standards)
- EN 61000-4-4 (Burst Standards)
- EN 61000-4-5 (Surge Standards)
- EN 61000-4-6 (Induced RFI Standards)
- EN 61000-4-8 (Magnetic Field Standards)

**Environmental Test Compliances**  
IEC 60068-2-6 Fc (Vibration)  
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
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## + 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>J</b>	1000BASE-LX (ST) - 40Km
<b>R</b>	1000BASE-BX (SC) WDMR-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.

