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

Hardened Grade

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

IEEE 802.3z 1000BASE-X

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)

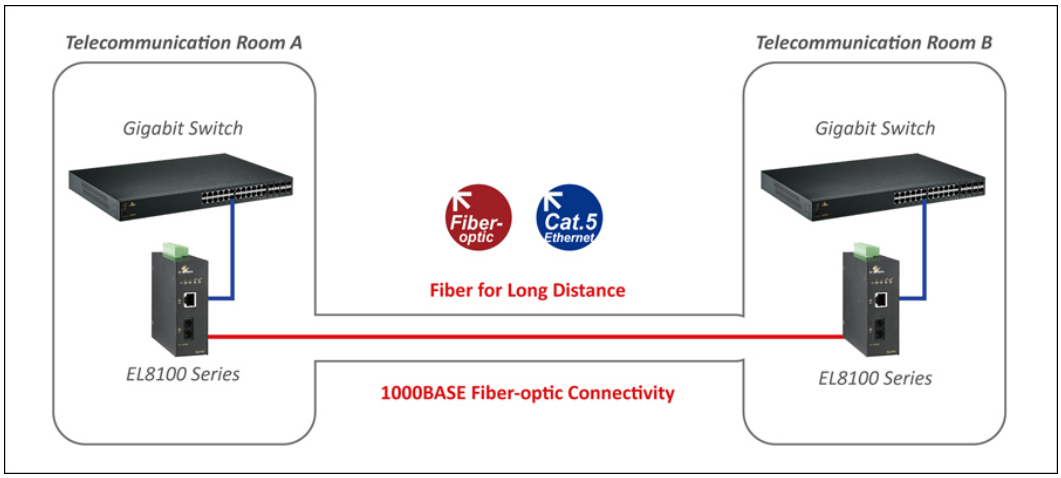
Environmental Test Compliances

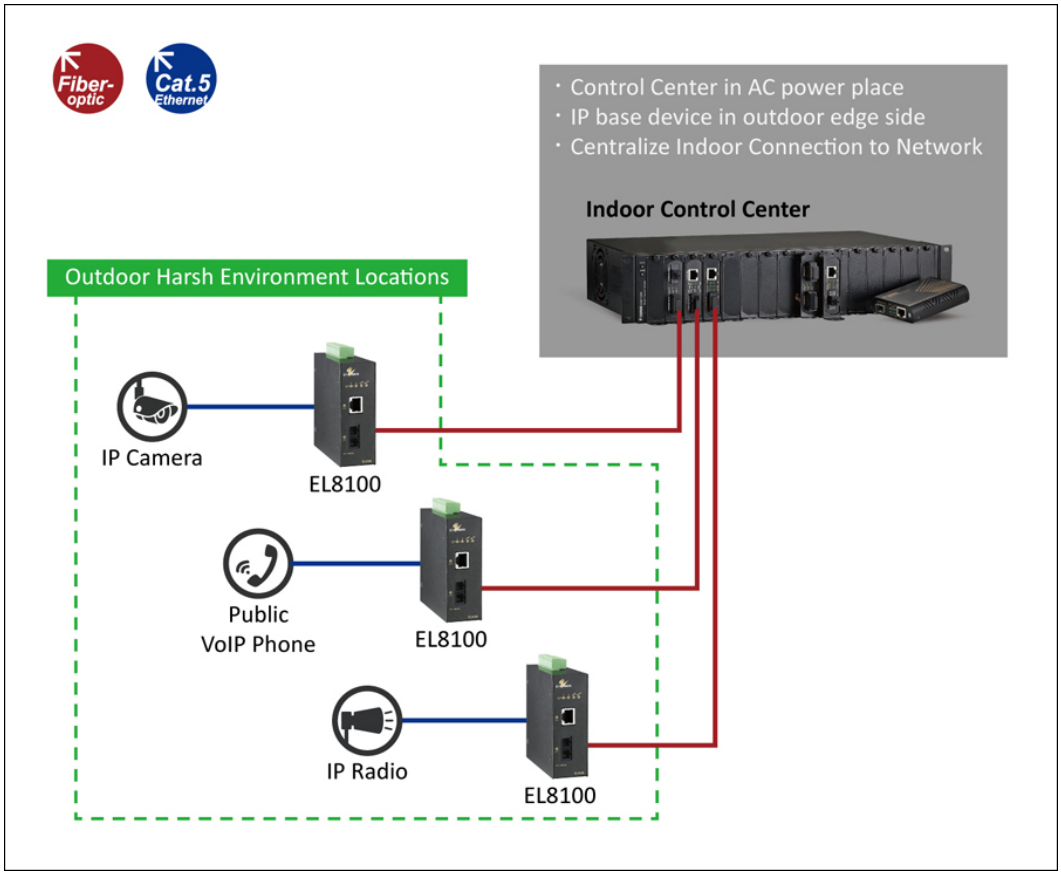
IEC 60068-2-6 Fc (Vibration)

IEC 60068-2-27 Ea (Shock)

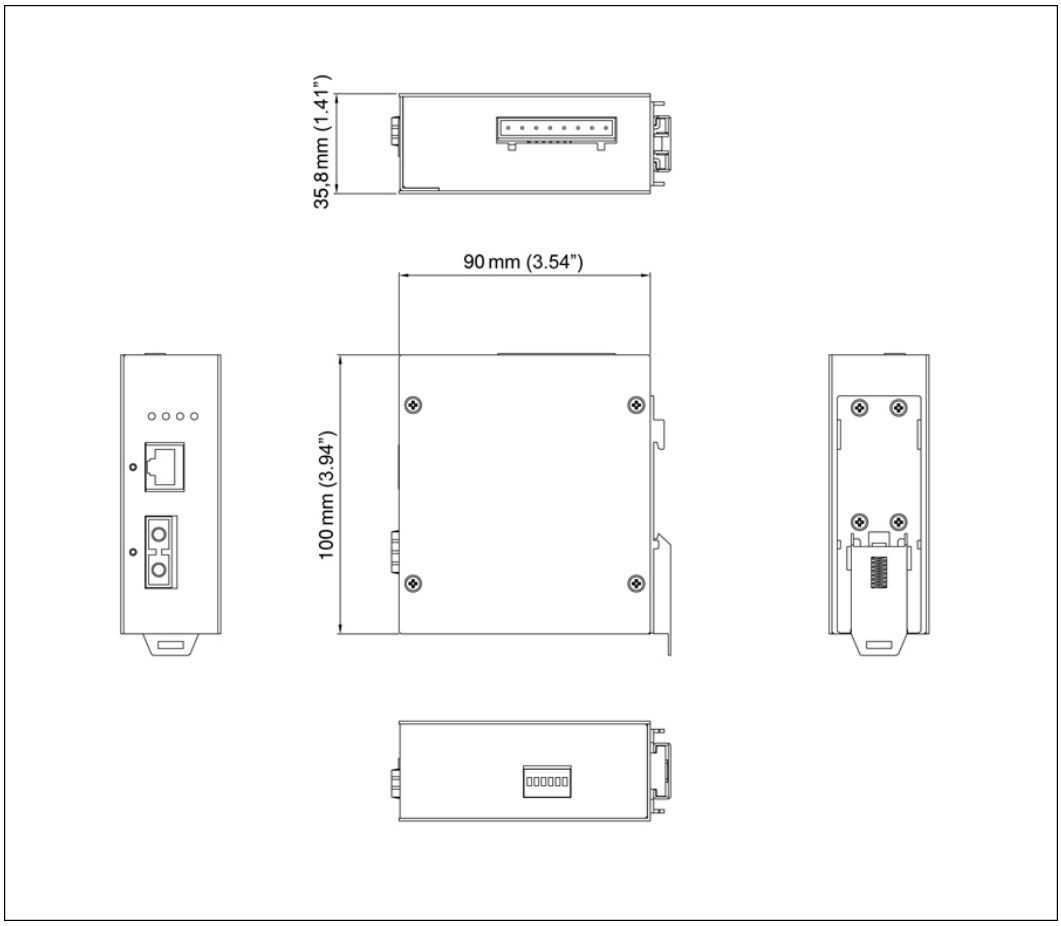
FED STD 101C Method 5007.1 (Free fall w/ package)

Application





Dimensions



Ordering Info

Model

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

Gigabit Fiber Options (X)

3	1000BASE-SX (SC) - Multi mode 550m 850nm
4	1000BASE-SX (SC) - Multi mode 2Km 1310nm
5	1000BASE-SX (ST) - Multi mode 550m 850nm
A	1000BASE-LX (SC) - Single mode 10Km 1310nm
B	1000BASE-LX (SC) - Single mode 20Km 1310nm
I	1000BASE-LX (ST) - Single mode 20km 1310nm
J	1000BASE-LX (ST) - Single mode 40km 1310nm
R	1000BASE-BX (SC) WDM-TX: Single mode 20Km 1310nm
S	1000BASE-BX (SC) WDM-TX: Single mode 20Km 1310nm

* More Gigabit options are also available upon request.

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