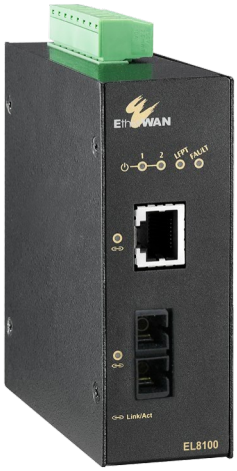
EL8100 Series

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-TX 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

Hardware 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

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

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)

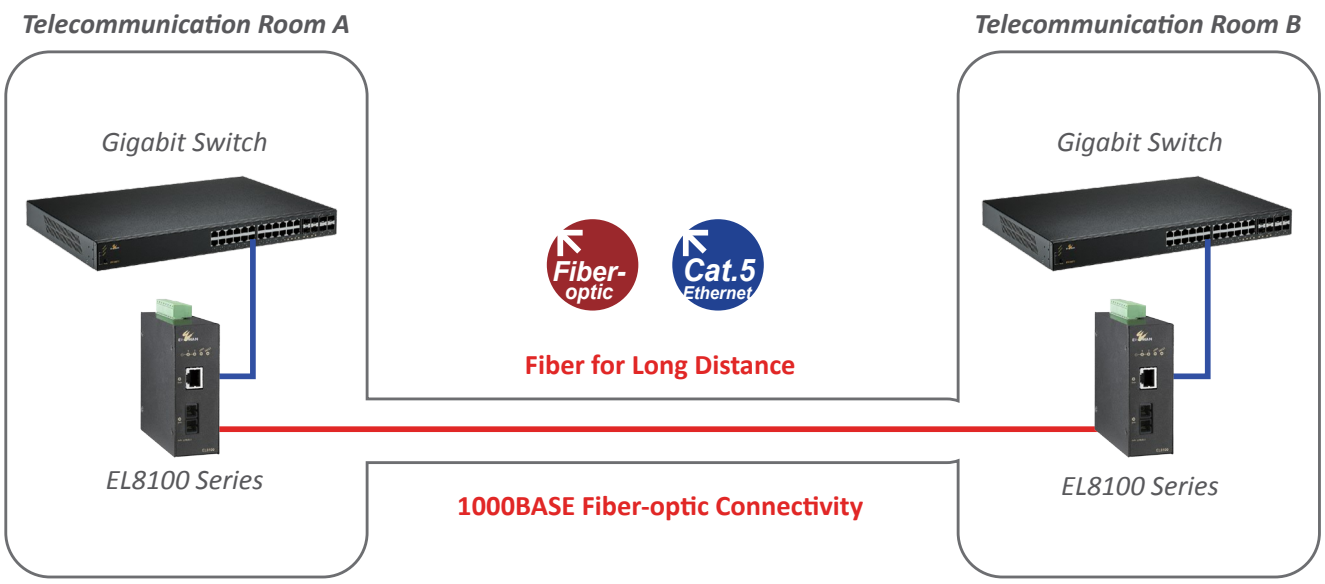
Environmental Test Compliance

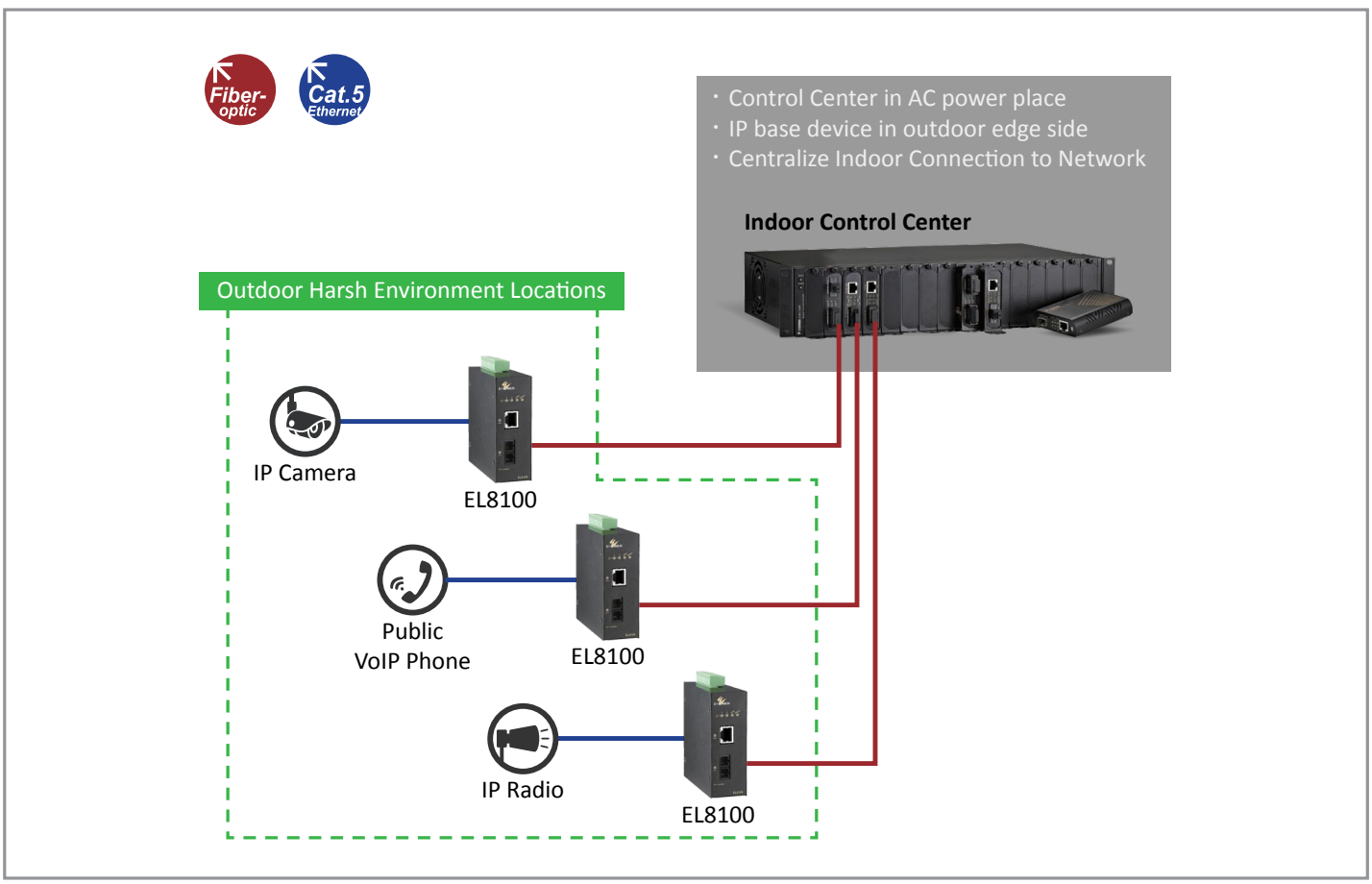
IEC 60068-2-6 Fc (Vibration Resistance)

IEC 60068-2-27 Ea (Shock)

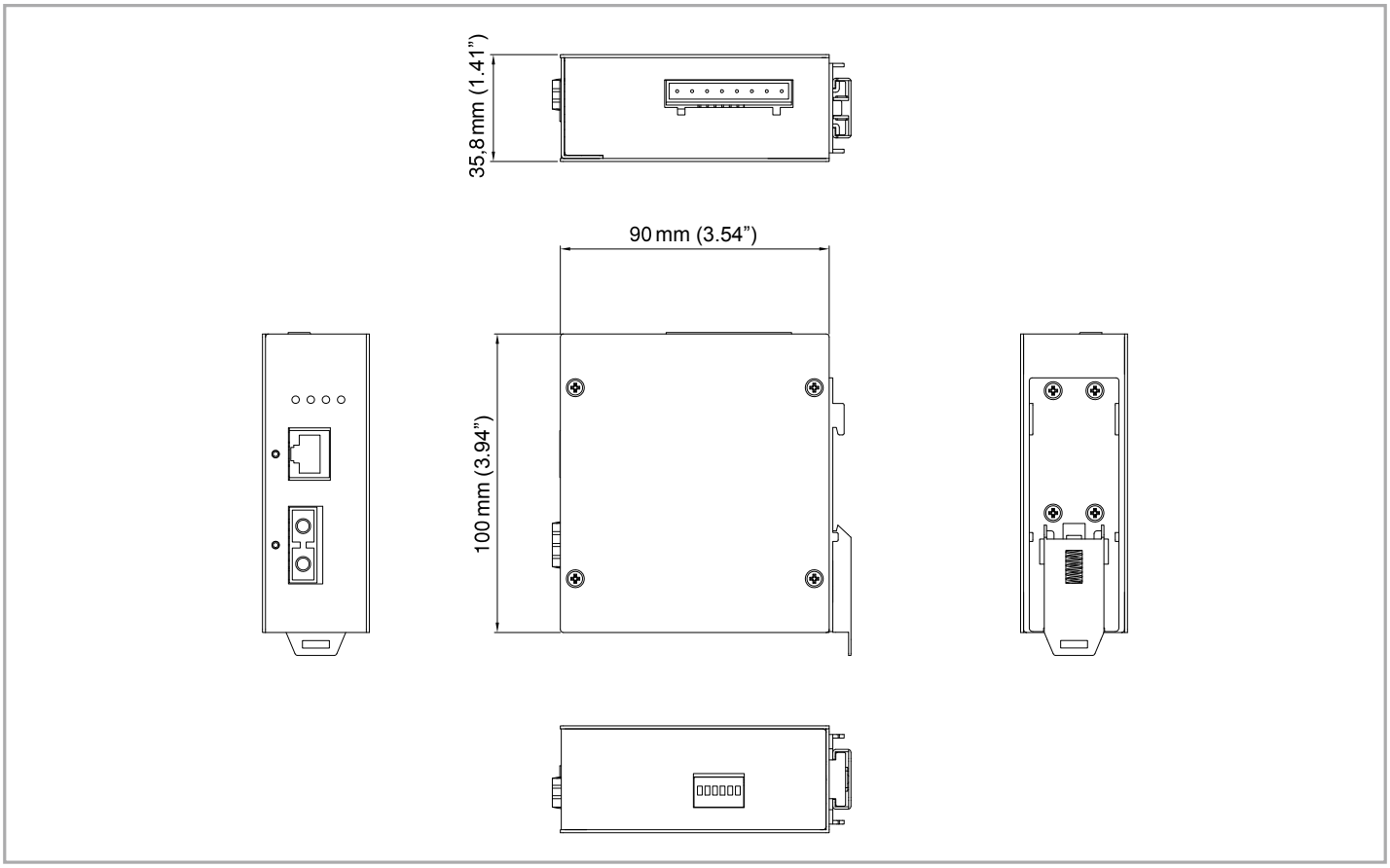
FED STD 101C Method 5007.1 (Free fall w/package)

Application Diagram





Dimensions



Ordering Information

Model

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

Gigabit Fiber Options (X)

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

** More Gigabit options are also available upon request.*