

# EL8020 Series

Hardened 10/100/1000BASE-TX to 100/1000 SFP Media Converter



## Overview

The EL8020 Series provides media conversion between 10/100/1000BASE-TX and 100/1000 SFP Fiber. Built specifically for mission critical applications in harsh environments, the EL8020's hardened design features high shock & vibration resistance, electrical noise immunity, wide operating temperature range from -40 to 75°C, and aluminum housing. With two power inputs, link down alarming, Link-Fault-Pass-Through and a wide range of fiber connectivity options, the EL8020 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 100/1000 SFP 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

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### 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

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### Input

- 12-48VDC

### Power Consumption

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

### Protection

- Overload current protection
- Reverse polarity protection

## Mechanical

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### 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

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### Ethernet Port

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

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### 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

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### ISO

- Manufactured in an ISO 9001 facility

## Safety

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### UL 61010

## EMI

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### FCC Part 15B Class A

### VCCI Class A

### EN 55032

### EN 61000-3-2

### EN 61000-3-3

### EN 61000-6-3

## EMS

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### 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

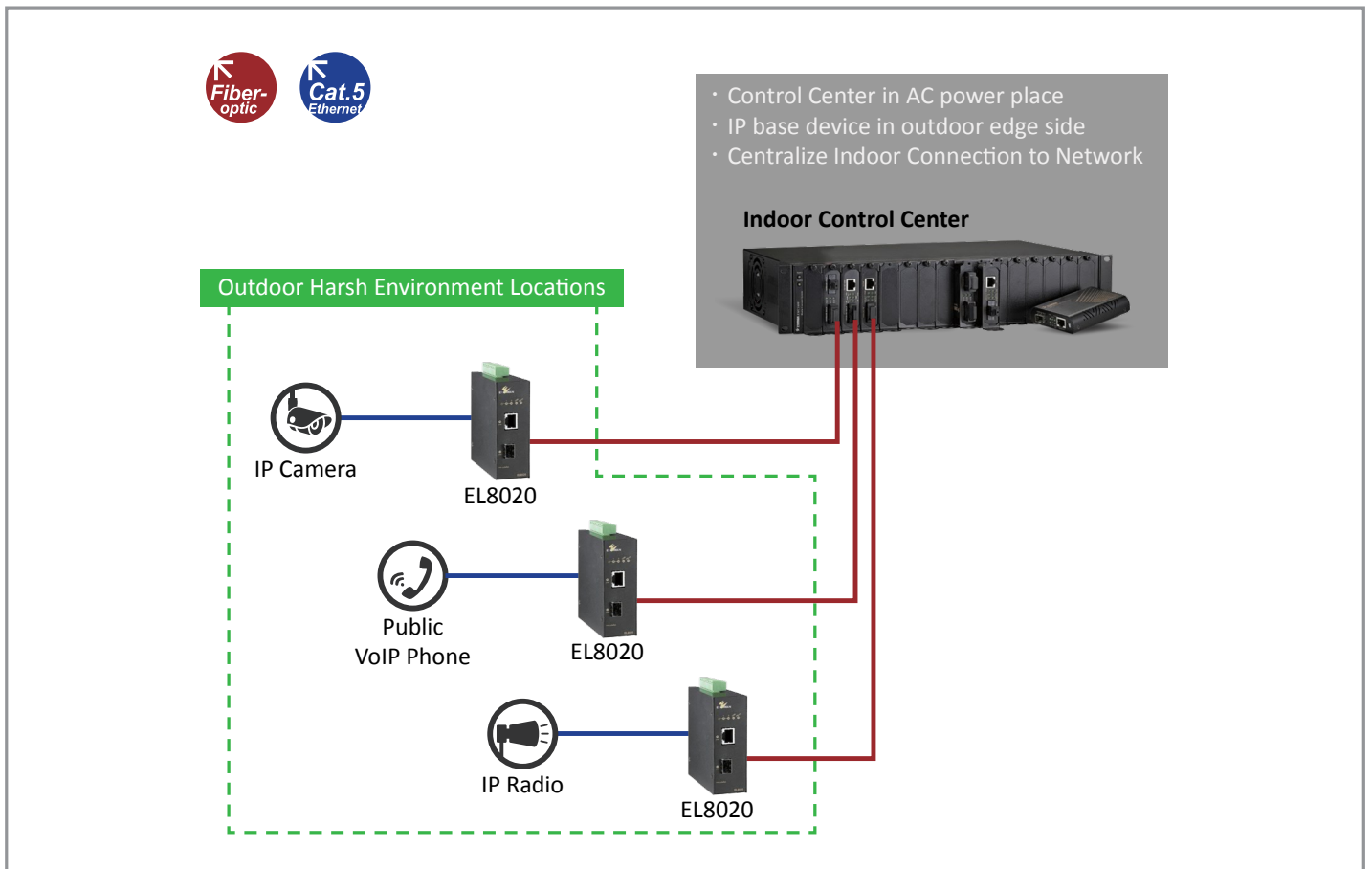
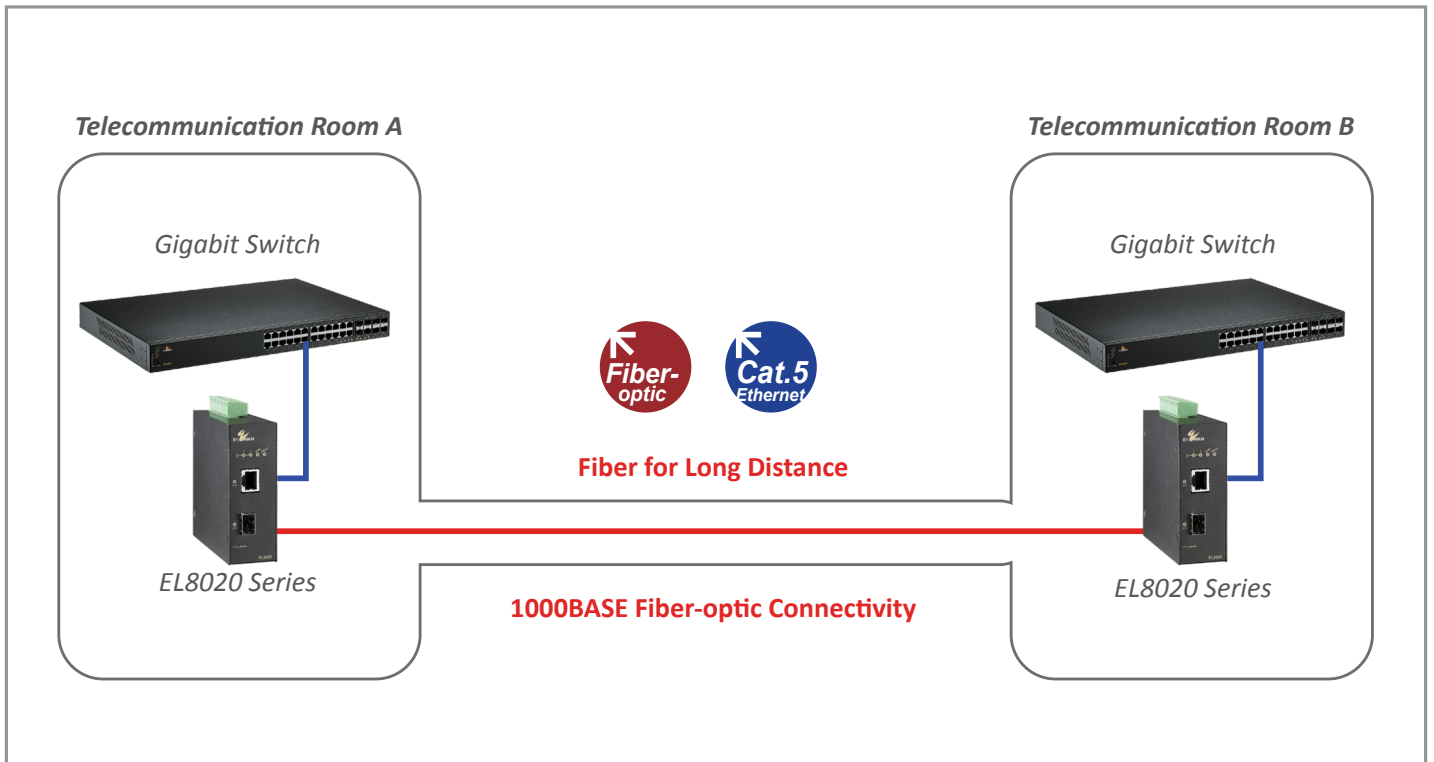
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### IEC 60068-2-6 Fc (Vibration Resistance)

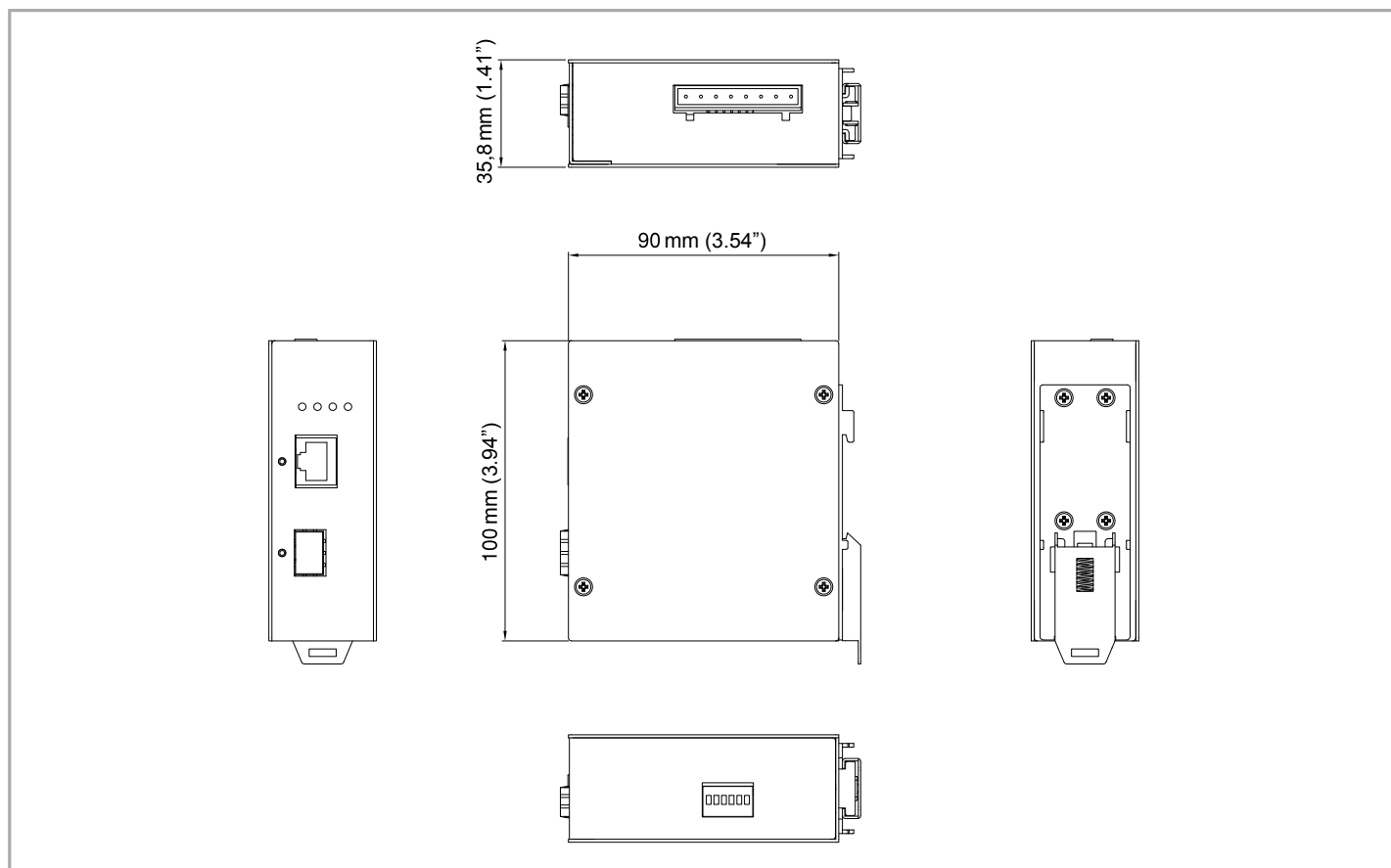
### IEC 60068-2-27 Ea (Shock)

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

# Application Diagram



## Dimensions



## Ordering Information

### Model

**EL8020-V1E**

10/100/1000BASE-TX to 100/1000 SFP Hardened Media Converter