# EL1142 Series

IEC 61850-3/IEEE 1613 Hardened 2-Port 10/100BASE-TX to 2-Port 100BASE-FX Media Converter



## Overview

**This product is discontinued as of 27th March 2026. Click here for alternative product.**

The EL1142 series provides two independent media conversion paths between 2 x 10/100BASE-T and 2 x 100BASE-SX-LX fiber. Similar to the EL1141 series media converter, the EL1142 includes the hardened construction and high performance needed for mission critical applications, including power substation automation. However, the EL1142 series offers twice the port density in the same housing dimensions, providing greater flexibility and requiring less space for installation.

EtherWAN — "When Connectivity is Crucial."

# Spotlight

## Higher Port Density

Two independent media conversion paths in a compact housing

## EN 50121-4 Certification

Designed and tested for railway environment applications

## IEC 61850-3/IEEE 1613 Certification

Meets standards for application in power substation automation

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

Provides constant monitoring of the links connected to the media converters

If a copper links 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

### Packet Buffer Memory

128K bits

### Processing Type

Store-and-forward

Auto Negotiation

Half-Duplex back-pressure and IEEE 802.3x Full-Duplex flow control

Auto MDI/MDIX

## Interface

### Ethernet Ports

10/100BASE-TX: 2 ports

100BASE-FX: 2 ports

### LED Indicators

Per Unit: Power1, Power2, Alarm

Per 10/100BASE-TX port: Link/Activity, 100, Full-Duplex/Collision, LFPT

Per 100BASE-FX port: Link/Activity, Full-Duplex/Collision

### Relay Contact

Dry contact with current 0.6A/30VDC

## Power

**Input**

12-48VDC

**Power Consumption**

5.28W Max., 12~48VDC, 0.4~0.11A

**Protection**

Overload Current Protection

Reverse Polarity Protection

## Mechanical

**Casing**

Aluminum Case

IP30

**Dimensions**

50 x 110 x 135mm (W x D x H)

(1.97" x 4.33" x 5.31")

**Weight**

1.2kg (2.64lbs.)

**Installation**

DIN-Rail (top hat type 35mm) or panel mounting

## 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

**EMC**

FCC Part 15B Class A

VCCI Class A

EN 61000-6-4

EN 61000-6-2 Class A

EN 55032 Class A

**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)

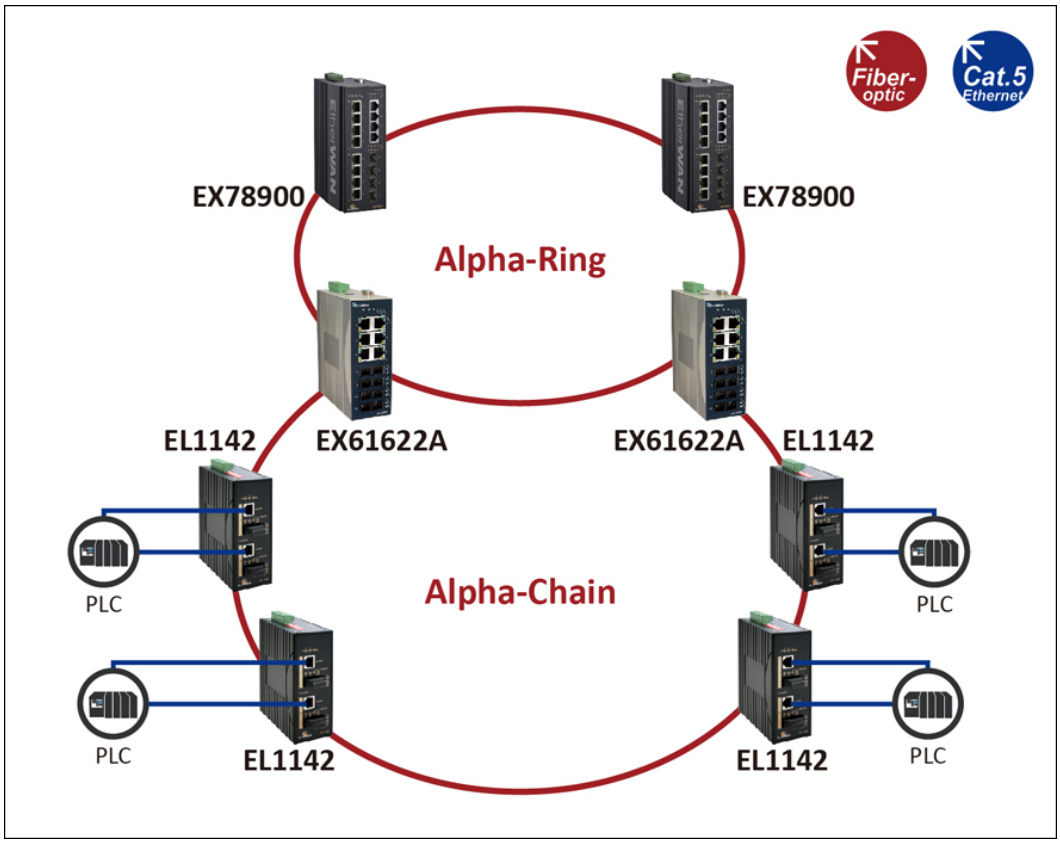
FED STD 101C Method 5007.1 (Free fall w/ package)

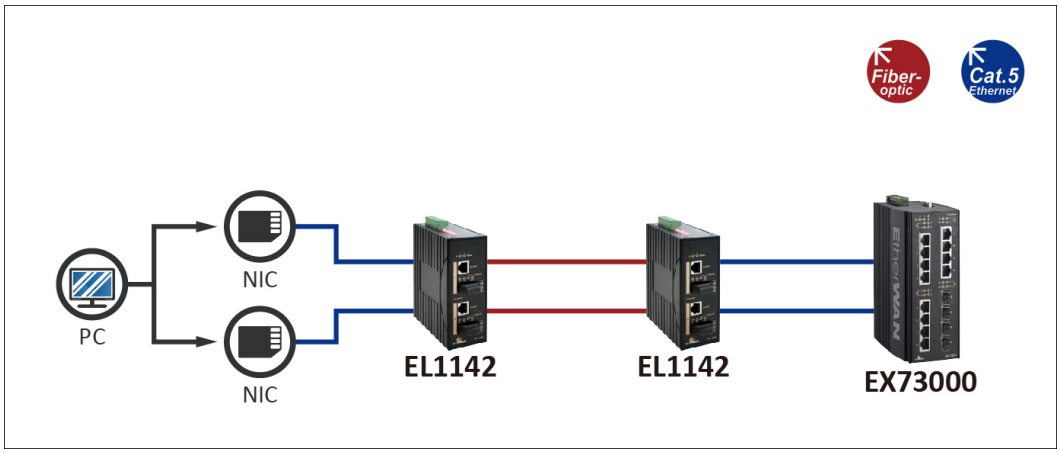
**Industrial Compliance**

IEC 61850-3/IEEE 1613

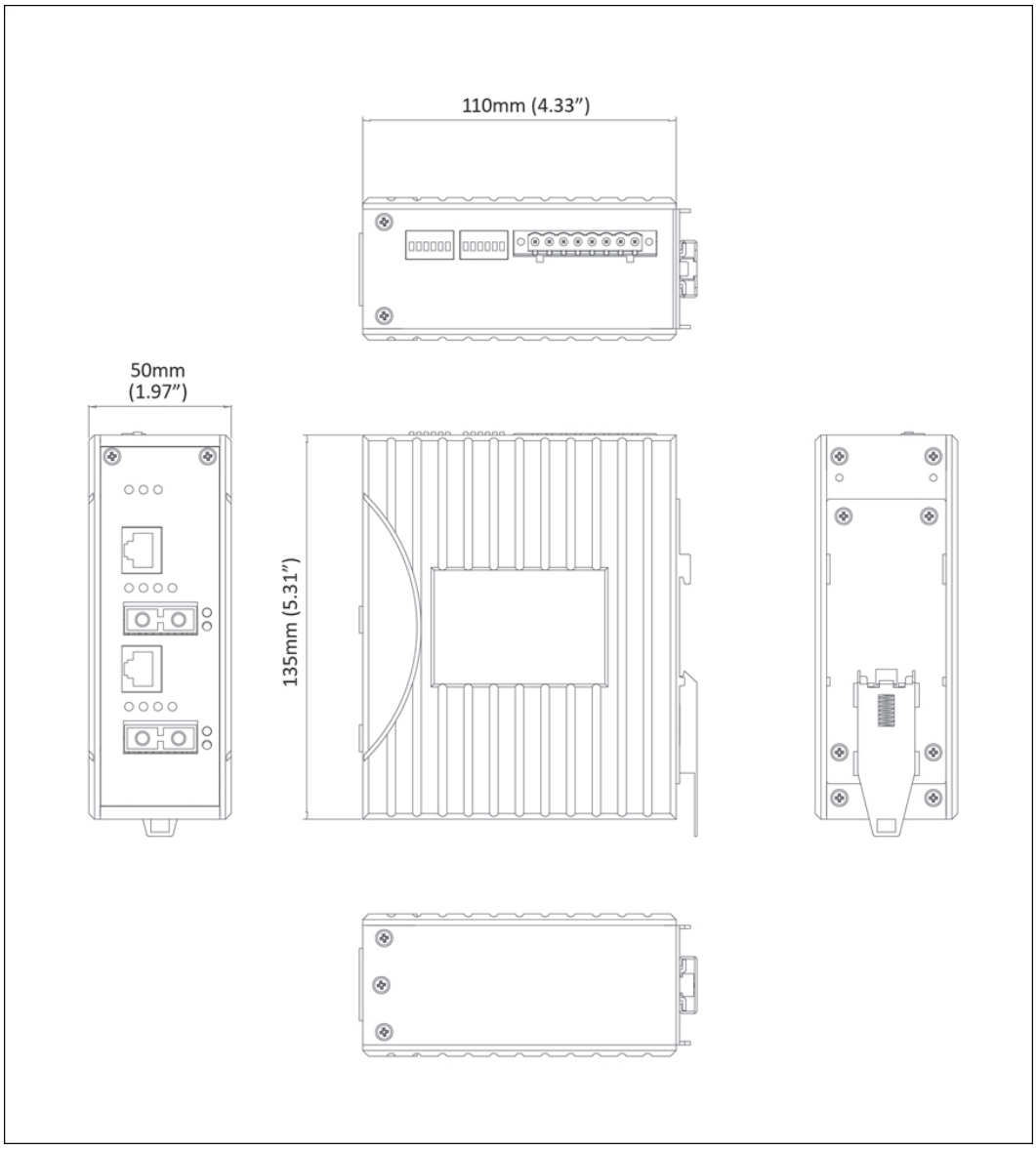
EN 50121-4

# Application



# Dimensions



# Ordering Info

## Model

| | |
|---|---|
| **EL1142-X0B** | 2-Port 10/100BASE-TX +2-Port 100BASE-FX IEC 61850-3/IEEE 1613 Hardened Media Converter |

* DIN-Rail mounting kit included.

## 100BASE-X Fiber Options (X)

| | |
|---|---|
| **1** | Multi Mode (SC) - 2Km (1310nm) |
| **2** | Multi Mode (ST) - 2Km (1310nm) |
| **A** | Single Mode (SC) - 20Km (1310nm) |
| **B** | Single Mode (SC) - 40Km (1310nm) |
| **H** | Single Mode (ST) - 20Km (1310nm) |

## Optional Accessories

| | |
|---|---|
| **KP-AA96-480** | KP-AA96-480 Panel mounting kit |
| **HDR-30-24** | 30W/1.5A DIN-Rail 24VDC Industrial Power Supply |
| **HDR-60-24** | 60W/2.5A DIN-Rail 24VDC Industrial Power Supply |
| **EDR-75-24** | 75W/3.2A DIN-Rail 24VDC Industrial Power Supply |
| **EDR-120-24** | 120W/5A DIN-Rail 24VDC Industrial Power Supply |
| **EX41-145046-X** | Power Supply 45W 12VDC with Open Wire<br>(X) = 1: US, 2: EU, 3: UK, 4: AU, 5: JP, 6: SA |

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