

# EL1142 Series

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



## Overview

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

### + IEC 61850-3/IEEE 1613 Certification

Meets standards for application in power substation automation

### + EN 50121-4 Certification

Designed and tested for railway environment applications

### + 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

### + Power

#### Input

12-48VDC

#### Power Consumption

4.5W Max  
0.37A@12VDC  
0.17A@24VDC  
0.09A@48VDC

#### 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

### + 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

### + 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

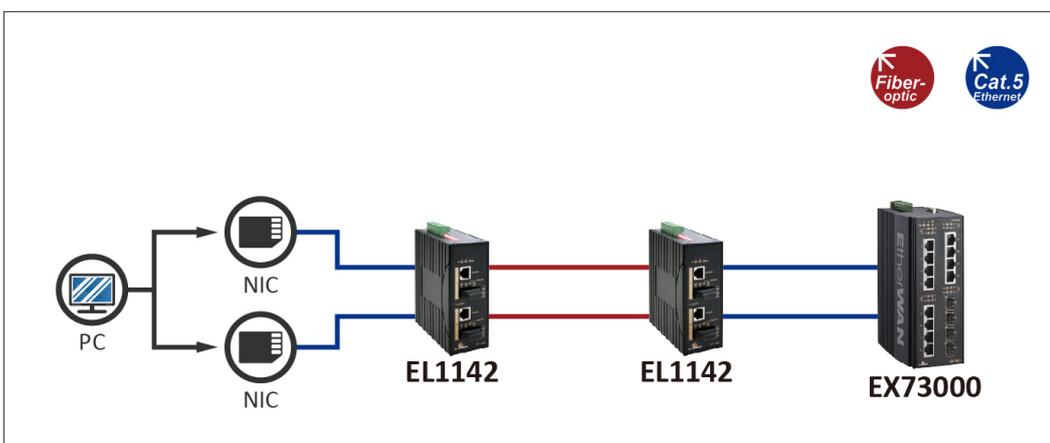
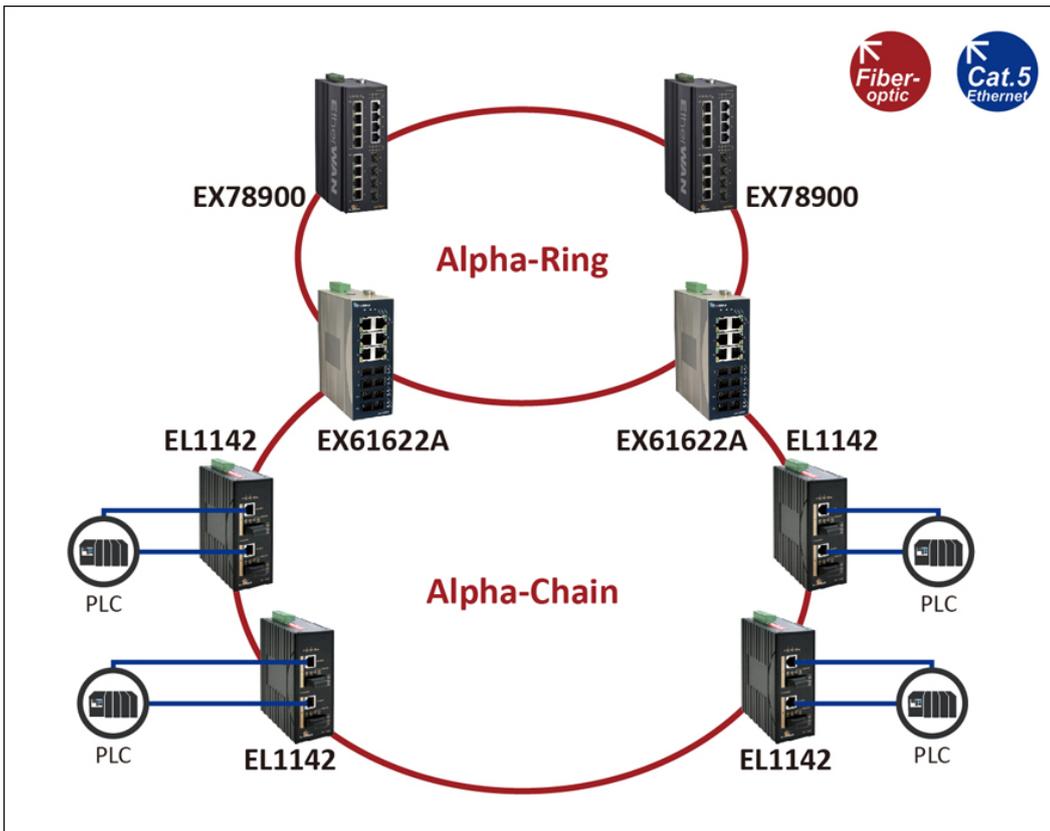
EN 61000-6-2  
• EN 61000-4-2 (ESD Standards)  
• EN 61000-4-3 (Radiated FRI Standards)  
• EN 61000-4-4 (Burst Standards)  
• EN 61000-4-5 (Surge Standards)  
• EN 61000-4-6 (Induced RFI Standards)  
• EN 61000-4-8 (Magnetic Field Standards)

#### Environmental Test Compliances

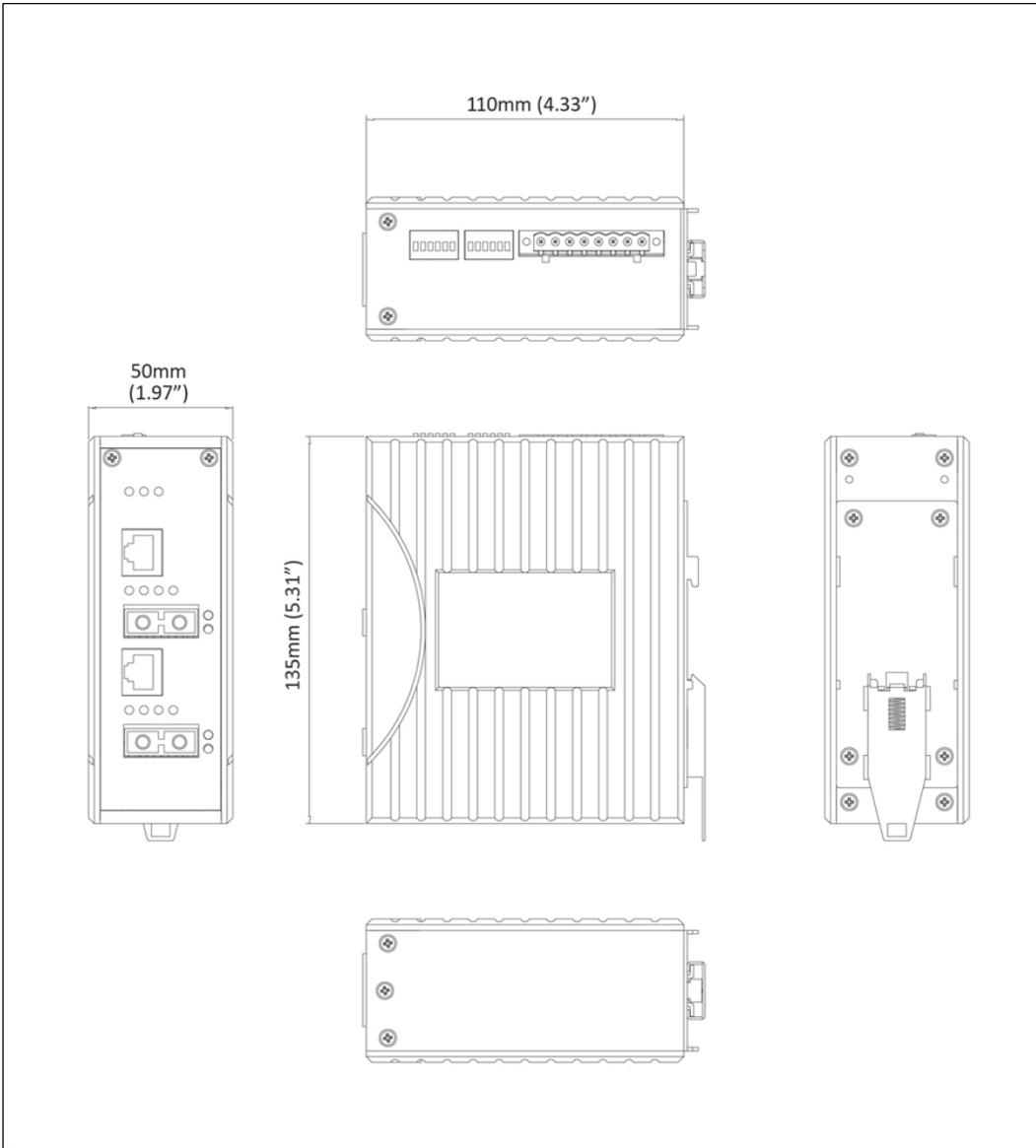
IEC 60068-2-6 Fc (Vibration)  
IEC 60068-2-27 Ea (Shock)  
FED STD 101C Method 5007.1 (Free fall w/ package)

Industrial Compliance  
IEC 61850-3/IEEE 1613  
EN 50121-4

## Application



## Dimensions



## Ordering Info

### Model

<b>EL1142-X0B</b>	2-Port 10/100BASE-TX +2-Port 100BASE-FX IEC 61850-3/IEEE 1613 Hardened Media Converter
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\* DIN-Rail mounting kit included.

### 100BASE-X Fiber Options (X)

<b>1</b>	Multi Mode (SC) - 2Km (1310nm)
<b>2</b>	Multi Mode (ST) - 2Km (1310nm)
<b>A</b>	Single Mode (SC) - 20Km (1310nm)
<b>B</b>	Single Mode (SC) - 40Km (1310nm)
<b>H</b>	Single Mode (ST) - 20Km (1310nm)

### Optional Accessories

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



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