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

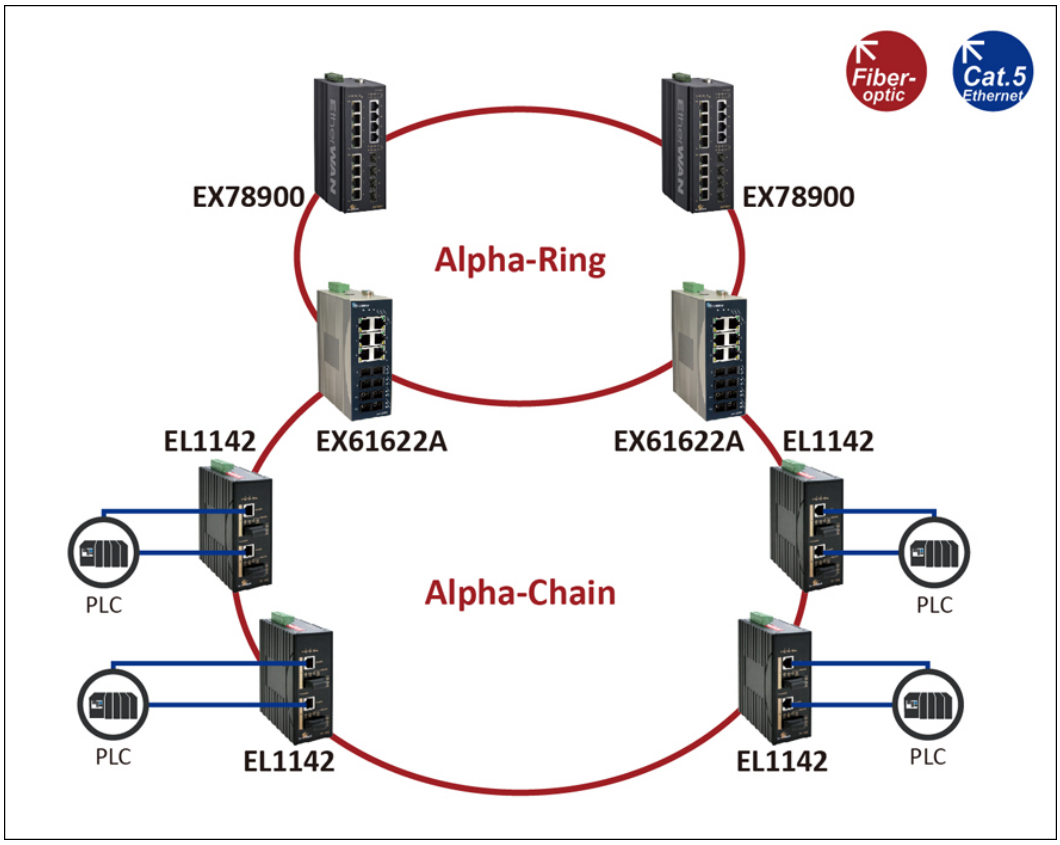
EMC
FCC Part 15B Class A
VCCI Class A
EN 61000-6-4
EN 61000-6-2 Class A
EN 55032 Class A

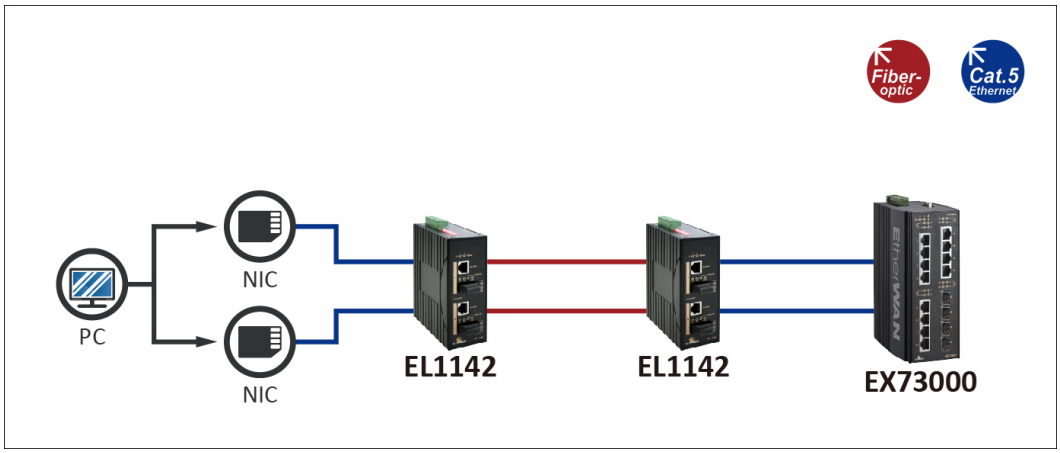
EMS
EN 61000-6-2
• EN 61000-4-2 (ESD Standards)
• EN 61000-4-3 (Radiated FRI Standards)
• EN 61000-4-4 (Burst Standards)
• EN 61000-4-5 (Surge Standards)
• EN 61000-4-6 (Induced RFI Standards)
• EN 61000-4-8 (Magnetic Field Standards)

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)

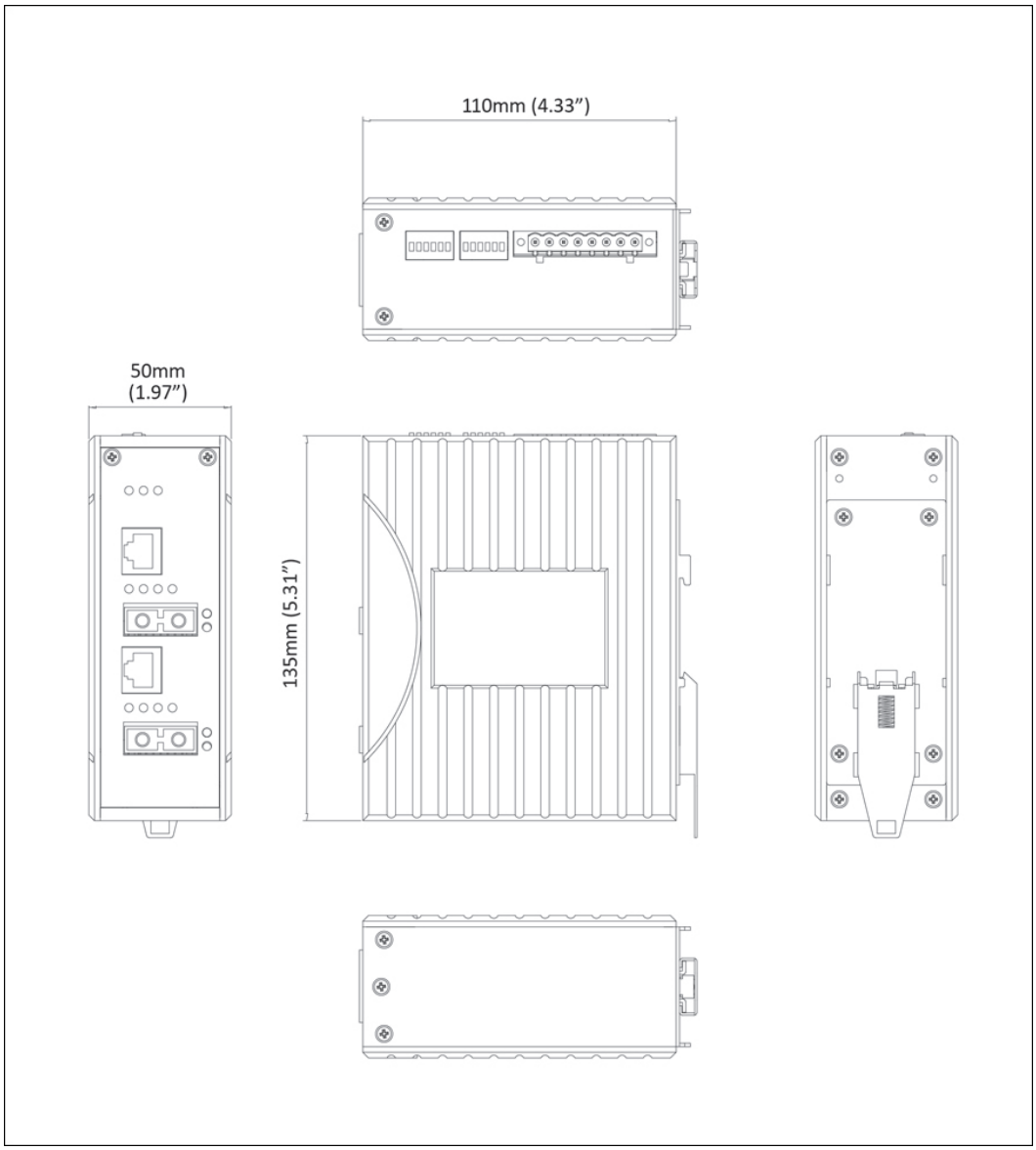
Industrial Compliance
IEC 61850-3/IEEE 1613
EN 50121-4

Application





Dimensions



Ordering Info

Model

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 (X) = 1: US, 2: EU, 3: UK, 4: AU, 5: JP, 6: SA