

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

+ 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 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

+ 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

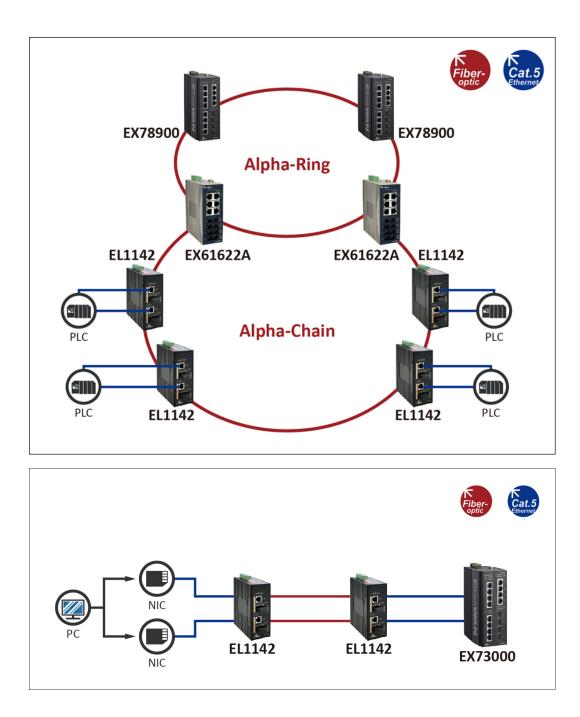
IEC 60068-2-6 Fc (Vibration) IEC 60068-2-27 Ea (Shock) FED STD 101C Method 5007.1 (Free fall w/ package)

Industrial Compliance

IEC 61850-3/IEEE 1613 EN 50121-4

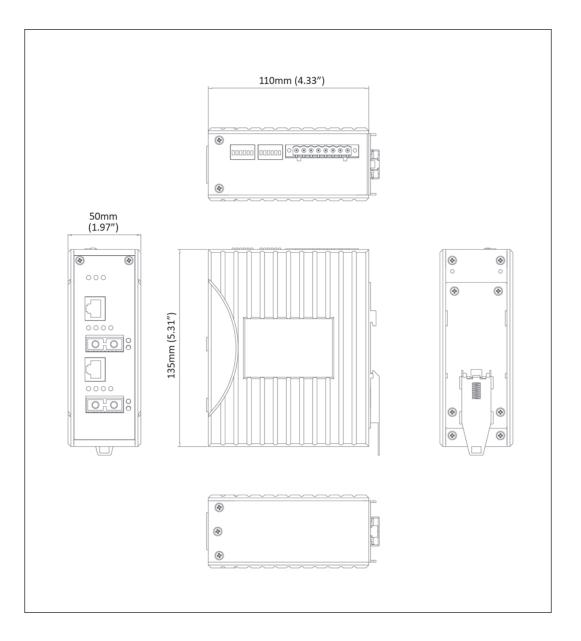


Application





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



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EtherWAN is constantly developing and improving products. Specifications are subject to change without notice and without incurring any obligation.