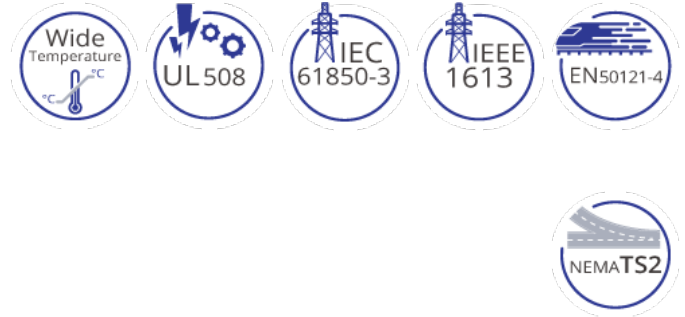


EL1141 Series

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



Overview

The EL1141 Series provides media conversion between 10/100BASE-T and 100BASE-SX-LX Fiber. Built specifically for mission-critical applications in harsh environments, the EL1141's hardened design features high shock and vibration resistance, electrical noise immunity, a wide operating temperature range from -40°C to 75°C, and ruggedized aluminum housing. EL1141 passes IEC61850-3/IEEE1613 certifications and is suitable for power substation applications. With triple power inputs, link down alarming, Link-Fault-Pass-Through and a wide range of fiber connectivity options the EL1141 is the ideal media converter for harsh environments.

EtherWAN — "When Connectivity is Crucial."

Spotlight

+ 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

+ Wide Operating Temperature

-40°C to 75°C wide operating temperature range design is suitable for installation in outdoor cabinets

+ 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 and 100BASE-FX
IEEE 802.3x Full duplex and flow control

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 to 48VDC (Terminal Block)
12VDC (DC Jack)

Power Consumption

2.4W MAX.
0.2A @ 12VDC
0.05A @ 48VDC

Protection

Overload Current Protection
Reverse Polarity Protection

+ Mechanical

Casing

Aluminum Case
IP30

Dimensions

50mm (W) x 110mm (D) x 135mm (H)
(1.97" (W) x 4.33" (D) x 5.31" (H))

Weight

0.8Kg (1.76lbs.)

Installation

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

+ Interface

Ethernet Ports

10/100BASE-TX: 1 ports
100BASE-FX: 1 ports

LED Indicators

Per Unit: Power 1, Power 2, Fault, Link-Fault-Pass-Through

Per port 10/100TX: Link/Activity, Full-duplex/Collision, Speed

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

Relay Contact

Relay contact rating with current 1A @ 30VDC, 0.5A @ 120VAC

+ 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

UL508

EMI

FCC Part 15B Class A
EN 55022
EN 61000-6-4
EN 55022
EN 61000-3-2
EN 61000-3-3

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)

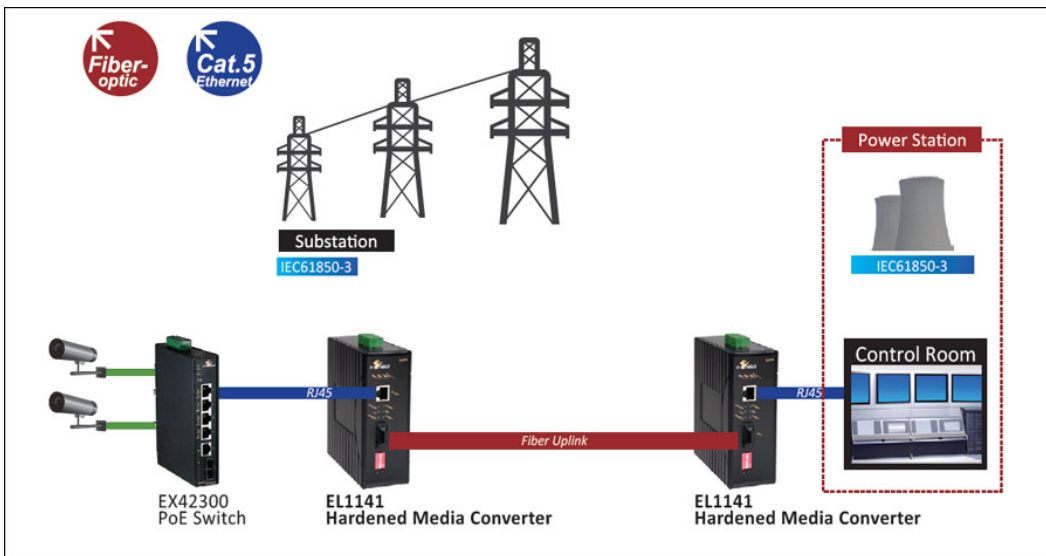
Environmental Test Compliances

IEC 60068-2-6 Fc (Vibration)
IEC 60068-2-27 Ea (Shock)

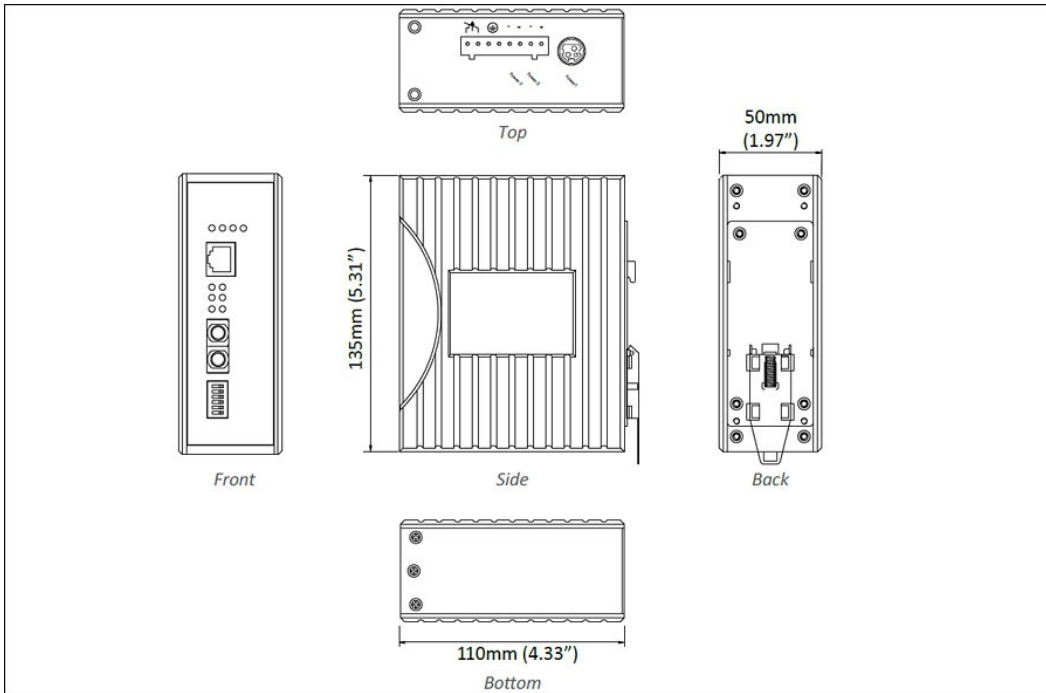
FED STD 101C Method 5007.1 (Free fall w/
package)

Industrial Compliance
IEC61850-3 / IEEE1613
EN50121-4
NEMA TS2

Application



Dimensions



Ordering Info

Model

| | |
|-------------------|--|
| EL1141-X0B | 10/100BASE-TX to 100BASE-FX Hardened Media Converter |
|-------------------|--|

* DIN-Rail mounting kit included.

100FX 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) |
| 6 | Multi Mode (SC) WDM-TX: 1310nm/RX: 1550nm-2Km |
| 7 | Multi Mode (SC) WDM-TX: 1550nm/RX: 1310nm-2Km |
| 8 | Multi Mode (SC) WDM-TX: 1310nm/RX: 1550nm-5Km |
| 9 | Multi Mode (SC) WDM-TX: 1550nm/RX: 1310nm-5Km |
| P | Single Mode (SC) WDM-TX: 1310nm/RX: 1550nm-20Km |
| Q | Single Mode (SC) WDM-TX: 1550nm/RX: 1310nm-20Km |
| R | Single Mode (SC) WDM-TX: 1310nm/RX: 1550nm-40Km |
| S | Single Mode (SC) WDM-TX: 1550nm/RX: 1310nm-40Km |

* More 100FX Fiber options also available upon request.

Optional Accessories

| | |
|--------------------|---|
| 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 |

EX41-145046-X

Power Supply 45W 12VDC with Open Wire
(X) = 1: US, 2: EU, 3: UK, 4: AU, 5: JP, 6: SA

