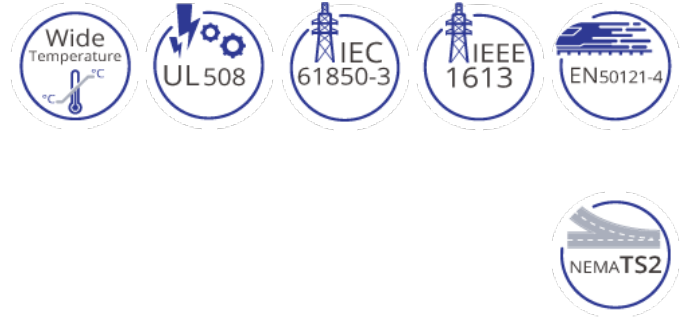


# EL1141 Series

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

### IEC61850-3/IEEE1613 Certification

- » Specific design for power automation applications

### EN50121-4 Certification

- » Specific design for railway environment application

### 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)

- » LFPT function let network operators be aware of network connection status
- » When fiber link is down, LFPT function will turn down Ethernet port to inform connected device that the link is down and vice versa

# Specifications

## Technology

### Standards

- IEEE802.3 10BASE-T
- IEEE802.3u 100BASE-TX/FX
- IEEE802.3x 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 IEEE802.3x full-duplex flow control
- Auto MDI/MDIX

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## Power

### Input Voltage

- 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

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## 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), Panel, or Rack mounting
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## Interface

### Ethernet Port

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

### 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
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## Environment

### Operating Temperature

- -40°C to 75°C (-40°F to 167°F)  
Tested @ -40°C to 85°C (-40°F to 185°F)

### Storage Temperature

- -40°C to 85°C (-40°F to 185°F)

### Ambient Relative Humidity

- 5% to 95% (non-condensing)

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## Regulatory Approvals

### ISO

- Manufactured in an ISO9001 facility

### Safety

UL508

### EMI

FCC Part 15B, Class A

EN61000-6-4

EN55022

EN61000-3-2

EN61000-3-3

### EMS

EN61000-6-2

- EN61000-4-2 (ESD Standards)
- EN61000-4-3 (Radiated RFI Standards)
- EN61000-4-4 (Burst Standards)
- EN61000-4-5 (Surge Standards)
- EN61000-4-6 (Induced RFI Standards)
- EN61000-4-8 (Magnetic Field Standards)

### Environmental Test Compliance

IEC60068-2-6 Fc (Vibration Resistance)

IEC60068-2-27 Ea (Shock)

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

### EMS

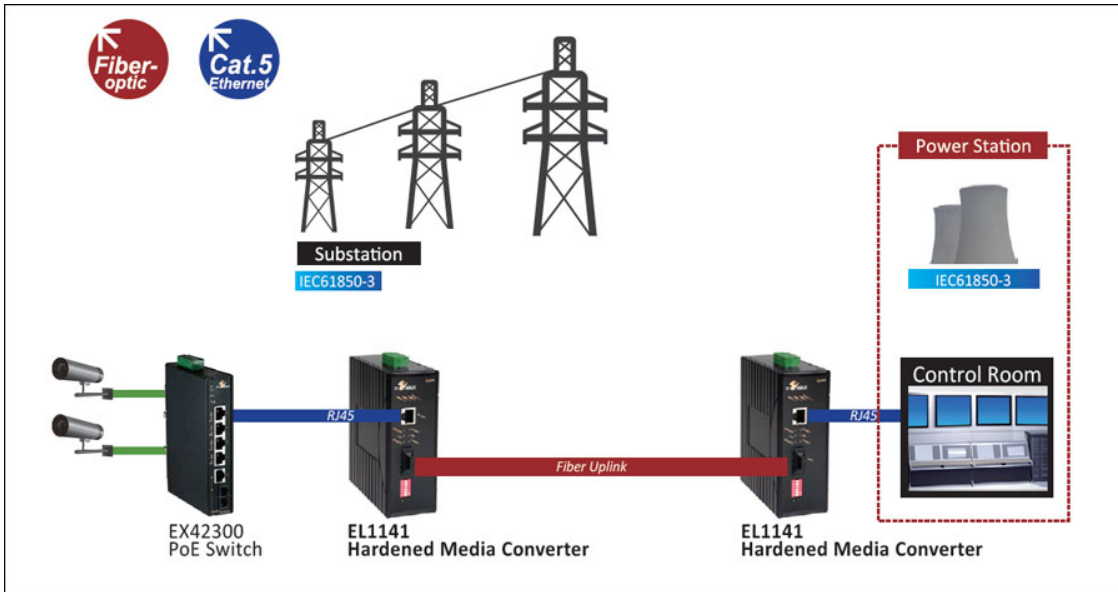
IEC61850-3 / IEEE1613

EN50121-4

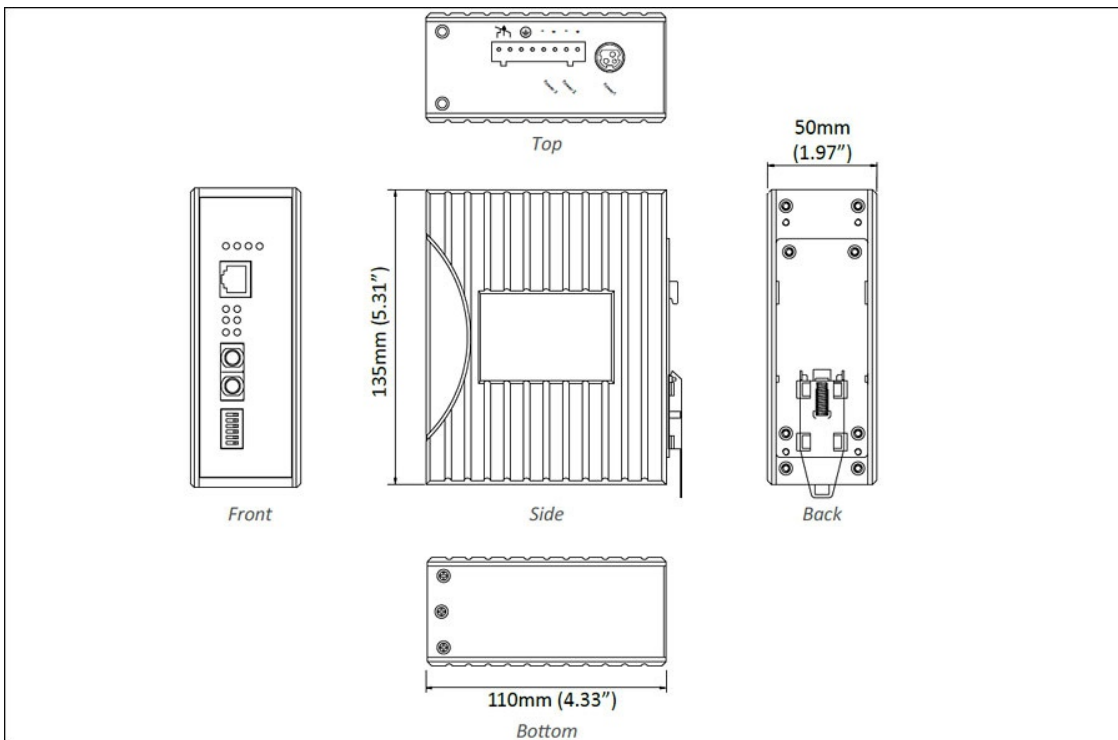
NEMA TS2

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# Application



# Dimensions



## Ordering Info

### Model

<b>EL1141-X0B</b>	10/100BASE-TX to 100BASE-FX Hardened Media Converter
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\* DIN-Rail mounting kit included.

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

\* More 100FX Fiber options also available upon request.

### Optional Accessories

<b>KP-AA96-480</b>	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

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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