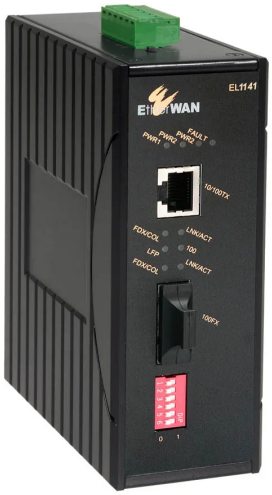
EL1141 Series

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

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)

Power

Input

12 to 48VDC (Terminal Block)

12VDC (DC Jack)

Power Consumption

12 to 48VDC, 0.24 to 0.06A

2.88W Max.

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

Regulatory Approvals

ISO

Manufactured in an ISO 9001 facility

Safety

UL508

UL62368-1

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)

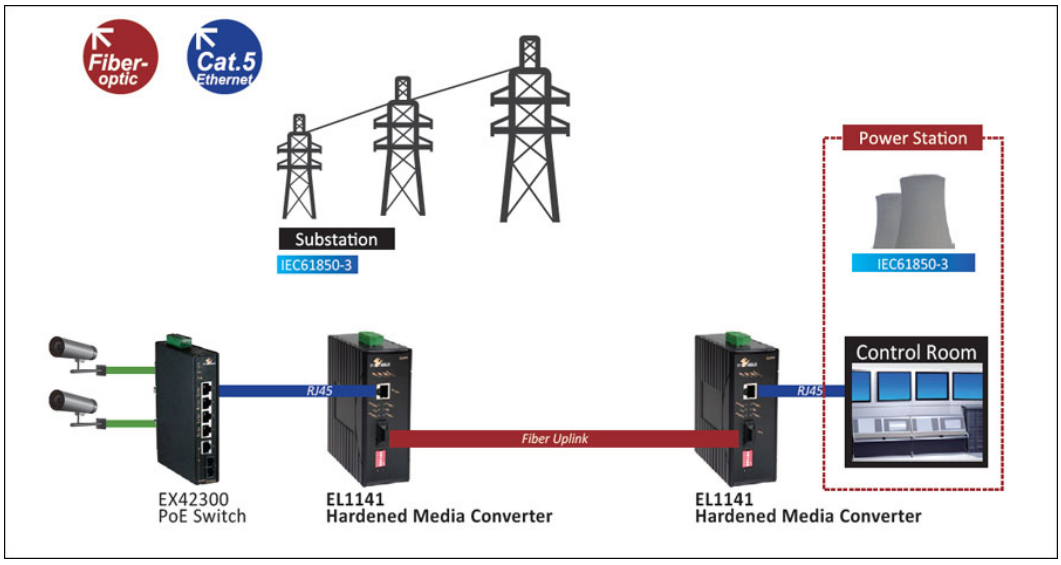
Industrial Compliance

IEC61850-3 / IEEE1613

EN50121-4

NEMA TS2

Application



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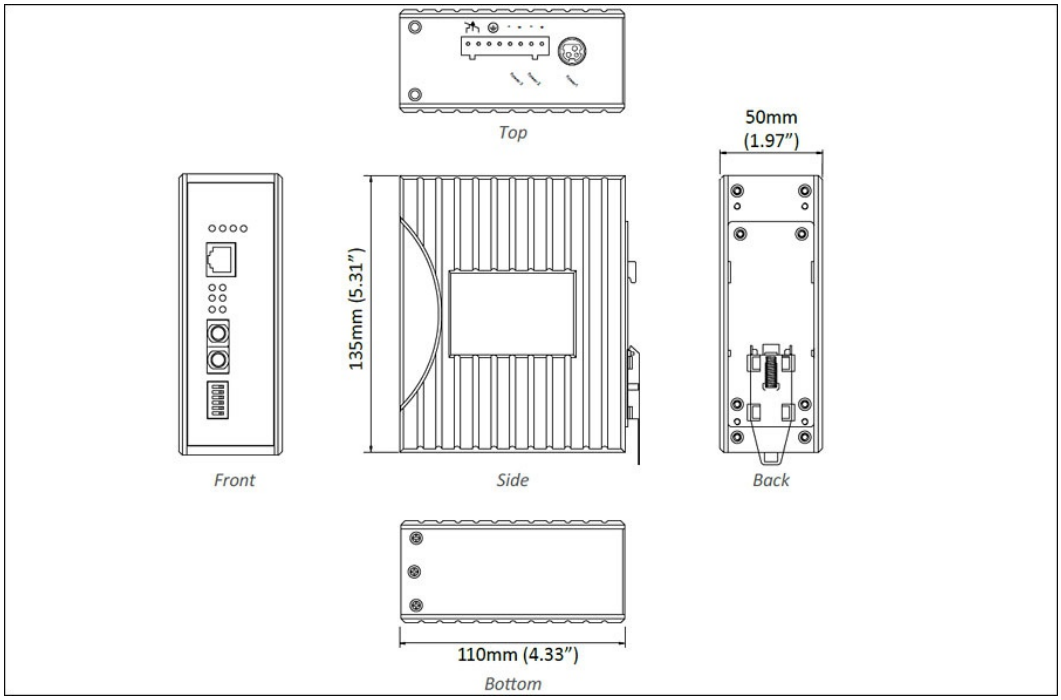

Ordering Info

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

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