## **EL9100 Series**

# Hardened 10/100/1000BASE-TX to 1000BASE-SX/LX/BX Media Converter













## Overview

The EL9100 Series provides media conversion between 10/100/1000BASE-T(X) and 1000BASE-SX-LX Fiber. Built specifically for mission-critical applications in harsh environments, the EL9100's hardened design features high shock & vibration resistance, electrical noise immunity, wide operating temperature range from -40°C to 75°C, and ruggedized aluminum housing. With triple power inputs, link down alarming, Link-Fault-Pass-Through and a wide range of fiber connectivity options, the EL9100 is the ideal media converter for environments where connectivity is crucial.

## **Spotlight**

### Gigabit Connectivity

- $^{\circ}\,$  Auto 10/100/1000BASE-TX and 1000BASE-SX/LX/BX Ethernet transmission conversion
- 1000Mbps Full duplex, 10/100MBps Full/Half duplex
- Full wire-speed forwarding rate

### UL508 Certification

Specific design for industrial communication applications with UL508 safety certification

#### Wide Operating Temperature

 $^{\circ}\,$  -40°C to 75°C wide operating temperature range design is suitable for installation in outdoor cabinet

## **Hardware Specifications**

#### **Technology**

#### **Standards**

- IEEE802.3 10BASE-T
- IEEE802.3u 100BASE-TX
- IEEE802.3ab 1000BASE-T
- IEEE802.3z 1000BASE-SX/1000BASE-LX
- IEEE802.3x full duplex and flow control

#### **Forward and Filtering Rate**

• 1,488,100pps for 1000Mbps

#### **Processing Type**

- Auto Negotiation
- Half duplex back-pressure and IEEE802.3x full-duplex flow control
- Auto-MDI/MDIX

#### **Power**

#### **Input Voltage**

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

#### **Power Consumption**

• 7.68W Max, 0.16A @ 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), Panel, or Rack mounting

#### Interface

#### **Ethernet Port**

- 10/100/1000BASE-TX: 1 port
- 1000BASE-SX/LX/BX: 1 port

#### **LED Indicators**

• Per Unit: Power1

Power2 Power3 Fault LFPT

• Per 10/100/1000BASE-TX Port: Link/ACT

100M 1000M

Full-duplex/Collision

• Per 1000SX/LX/BX Port: Link/Act

#### **DIP Switch**

- No.1: LFPT on/off
- No.2: Alarm for copper port on/off
- No.3: Alarm for fiber port on/off
- No.4: Auto-negotiation for fiber port on/off

#### **Alarm Contact**

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

#### **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)

#### **Regulatory Approvals**

#### ISO

Manufactured in an ISO9001 facility

#### **EMI**

FCC Part 15B, Class A

EN61000-6-4

EN55022

EN61000-3-2

EN61000-3-3

#### Safety

#### **UL508**

#### **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)

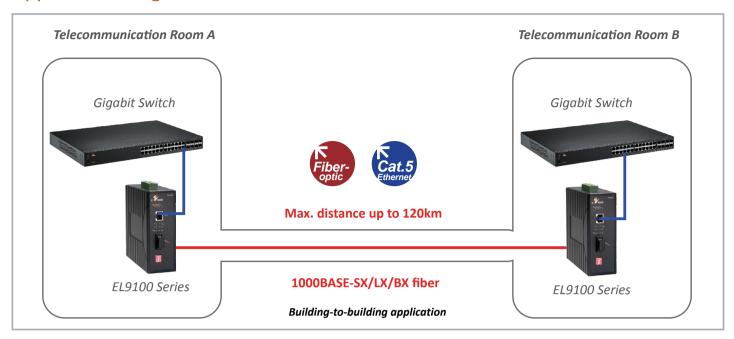
IEC60068-2-27 Ea (Shock)

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

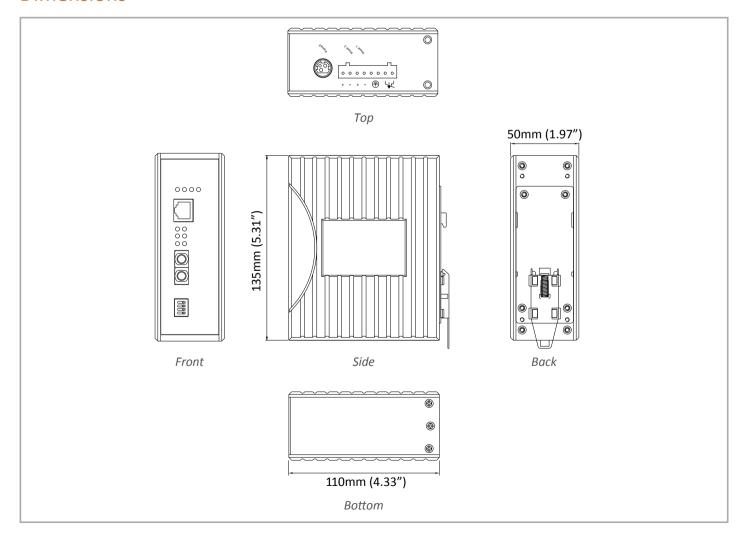
**Industrial Compliance** 

**NEMA TS1 & TS2** 

## **Application Diagram**



## **Dimensions**



## **Ordering Information**

## Model

EL9100-X1B	10/100/1000BASE-TX to 1000BASE-SX/LX/BX Hardened Media Converter

## Gigabit Port Options (X)

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3	1000BASE-SX(SC) - 550m
4	1000BASE-SX (SC) - 2Km
5	1000BASE-SX (ST) - 550m
Α	1000BASE-LX (SC) - 10Km
В	1000BASE-LX (SC) - 20Km
E	1000BASE-LX (SC) - 40Km (1310nm)
Н	1000BASE-LX (ST) - 10Km (1310nm)
I	1000BASE-LX (ST) - 20Km (1310nm)
R	1000BASE-BX (SC) WDM-TX:1310nm/RX:1550nm - 20Km
S	1000BASE-BX (SC) WDM-TX:1550nm/RX: 1310nm - 20Km

<sup>\*</sup> DIN-Rail mounting kit included

## **Optional Accessories**

DR-30-24	30W/1.5A DIN-Rail 24VDC Industrial Power Supply (For Terminal Block)
DR-60-24	60W/2.5A DIN-Rail 24VDC Industrial Power Supply (For Terminal Block)
DR-75-24	75W/3.2A DIN-Rail 24VDC Industrial Power Supply (For Terminal Block)
DR-120-24	120W/5A DIN-Rail 24VDC Industrial Power Supply (For Terminal Block)
41-136046-X	36W/3A 12VDC hardened power adapter with open wire in aluminum housing (For Terminal Block); (X) = 1: US, 2: EU, 3: UK, 4: AU, 5: JP, 6: SA
41-136044-X	36W/3A 12VDC hardened power adapter with latched DC jack in aluminum housing (For DC Jack); (X) = 1: US, 2: EU, 3: UK, 4: AU, 5: JP, 6: SA