

EL9100 Series

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



Overview

The EL9100 functions at temperature ranging from -40°C to 75°C (-40°F to 167°F) and is tested for functional operation @ -40°C to 85°C (-40°F to 185°F). Whether on the factory floor or the street corner, the EL9100 will provide flawless communications when you need it most. The EL9100 series supports multimode/single-mode fibre optics. The RJ-45 port on this unit provides Auto-MDIX and auto-negotiation. The link-fault-pass-through feature allows the network management agent on adjacent equipment to react to a broken link. Flexibility is the main feature of the EL9100, it may be DIN rail or panel mounted, and comes with power options to match the applications that require a tough, environmentally hardened, Gigabit Ethernet media converter.

Features

- Complies with NEMA TS1 & TS2 Environmental requirements for Traffic control equipment
- Complies with IEC61000-6-2 EMC Generic standard immunity for Industrial environment
- DIP switch configuration for "Link-Fault-Pass-Through", fibre Auto/force mode, link down alarm
- 10/100/1000Mbps-Full-duplex, Auto-Negotiation, Auto-MDI/ MDIX
- Full wire-speed forwarding rate
- Alarms for power and port link failure by relay output
- Redundant power inputs with Terminal Block and DC Jack
- -40°C to 75°C (-40°F to 167°F) operating temperature range
- Hardened aluminium case
- Supports DIN-Rail, Panel or Rack Mounting installation

Ordering Information

EL9100-X1Z 10/100/1000BASE-TX to 1000BASE-SX/LX/BX Hardened Media Converter

Gigabit Options:

- (X) =
- 3: 1000BASE-SX (SC) -550m
 - 4: 1000BASE-SX (SC) -2Km
 - 5: 1000BASE-SX (ST) -550m
 - A: 1000BASE-LX (SC) -10Km
 - B: 1000BASE-LX (SC) -20Km
 - H: 1000BASE-LX (ST) -10Km
 - I: 1000BASE-LX (ST) -20Km
 - R: 1000BASE-BX (SC) WDM -TX: 1310nm/RX: 1550nm -20Km
 - S: 1000BASE-BX (SC) WDM -TX: 1550nm/RX: 1310nm -20Km

Power Input Interface:

(Z) =B: Terminal Block & DC Jack

Power Supply: (Optional)

*Option A - The Terminal Block type external power supply are not included. Please order the following part numbers, as required:

DR-30-24, DR-60-24, DR-75-24, DR-120-24 or 41-136046-X X=1, 2,3,4,5

**Option B - The external power adapter and power cord are not included. Please order the following part numbers, as required:

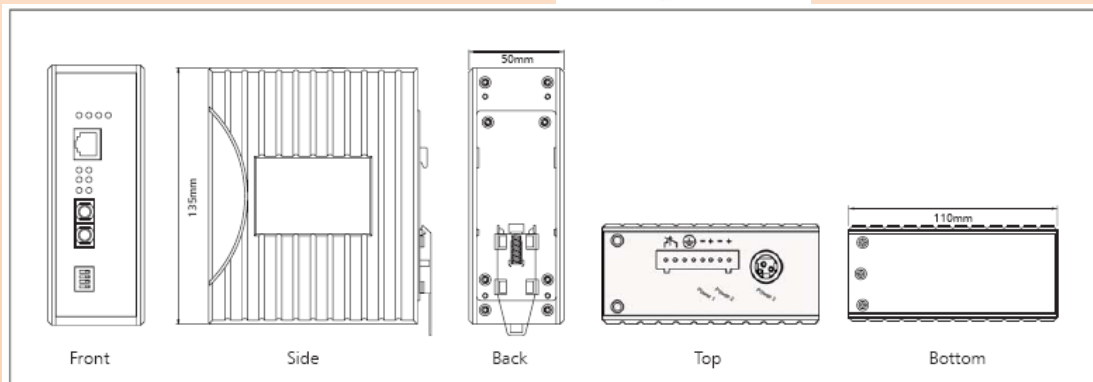
41-136044-X X=1, 2,3,4,5

Installation Type: DIN Rail (mounting kit is included)

Optional Panel mount kit, part number: KP-AA96-480



Diagrams



EL9100 Series

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

Specifications

Technology

Standards:

- IEEE802.3 10BASE-T, IEEE802.3u 100BASE-TX, IEEE802.3ab 1000BASE-T, IEEE802.3z 1000BASE-SX/1000BASE-LX, IEEE802.3x

Forward and Filtering Rate:

- 1,488,100pps for 1000Mbps

Power

Input:

- Input Voltage: 12 to 48VDC (Terminal Block); 12VDC (DC Jack)

Power Consumption:

- 10.56W, 0.88A@12VDC, 0.44A@24VDC, 0.22A@48VDC

Overload Current Protection:

- Present

Reverse Polarity Protection:

- Present

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, Rack Mounting

Interface

Ethernet Port:

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

LED Indicators:

- Per Unit: Power Status (Power1, Power2, Power3, Fault), LFPT
- Per Port: 10/100/1000TX: Link/Activity, Speed, Full-duplex/Collision
- Gigabit: Link/Activity

Relay 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-condensina)

Regulatory Approvals:

ISO:

- Manufactured in an ISO9001 facility

Safety:

- UL508

EMI:

- FCC Part 15, Class A
- VCCI, Class A
- EN61000-6-4
- EN55022
- EN61000-3-2
- EN61000-3-3



EMS:

- EN61000-6-2
- EN61000-4-2 (ESD Standards)
Contact: + / - 4KV; Criteria B
Air: + / - 8KV; Criteria B
- EN61000-4-3 (Radiated RFI Standards)
10V/m, 80 to 2.7GHz; 80% AM Criteria A
- EN61000-4-4 (Burst Standards)
Signal Ports: + / - 4KV; Criteria B
D.C. Power Ports: + / - 4KV; Criteria B
- EN61000-4-5 (Surge Standards)
Signal Ports: + / - 1KV; Line-to-Line; Criteria B
D.C. Power Ports: + / - 0.5KV; Line-to-earth; Criteria B
- EN61000-4-6 (Induced RFI Standards)
Signal Ports: 10Vrms @ 0.15~80MHz; 80% AM Criteria A
D.C. Power Ports: 10Vrms @ 0.15~80MHz; 80% AM Criteria A
- EN61000-4-8 (Magnetic Field Standards)
30A/m @ 50, 60Hz; Criteria A

Environmental Test Compliance:

- IEC60068-2-6 Fc (Vibration Resistance)
5g @ 10~150KHz, Amplitude 0.35mm
(Operation/Storage/Transport)
- IEC60068-2-27 Ea (Shock)
25g @ 11ms (Half-Sine Shock Pulse; Operation)
50g @ 11ms (Half-Sine Shock Pulse; Storage/Transport)
- IEC60068-2-32 Ed (Free Fall)
1M (3.281ft.)

Terminal Block and Power inputs

Power Input Assignment		
Power3		12VDC DC Jack
Power2	+	12-48VDC
	-	Power Ground
Power1	+	12-48VDC
	-	Power Ground
		Earth Ground
Relay Alarm Assignment		
 FAULT	*Relay warning signal disable for following: 1. The relay contact closes if Power1 and Power2 are both failed but Power3 on. 2. The relay contact closes if Power3 is failed but Power1 and Power2 are both on.	

