



Overview

The EL900 functions at temperatures 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 EL900 will provide flawless communications when you most need it most. The EL900 is available with a selection of fibre cabling and connector options. 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 EL900, it may be DIN rail or panel mounted, and comes with power options to match the applications that require a tough, environmentally hardened, Fast 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
- UL 1604 Class 1, Division 2 Classified for use in hazardous locations (Applicable to versions with Terminal Block power option)
- DIP switch configuration for "Link-Fault-Pass-Through", link down alarm, speed, duplex mode
- 768K bits buffer memory
- 10/100Mbps-Full/Half-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 or 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

EL900-X-Y-I-P Hardened 10/100BASE-TX to 100BASE-FX Media Converter

10/100TX Options:

- (Y) = B: Multi Mode (SC)
 C: Multi Mode (ST)
 D: Multi Mode (SC) WDM -TX: 1310nm/RX: 1550nm -2Km
 E: Multi Mode (SC) WDM -TX: 1550nm/RX: 1310nm -2Km
 F: Multi Mode (SC) WDM -TX: 1310nm/RX: 1550nm -5Km
 G: Multi Mode (SC) WDM -TX: 1550nm/RX: 1310nm -5Km

- Q: Single Mode (SC) WDM -TX: 1310nm/RX: 1550nm -20Km
 R: Single Mode (SC) WDM -TX: 1550nm/RX: 1310nm -20Km
 S: Single Mode (SC) WDM -TX: 1310nm/RX: 1550nm -40Km
 T: Single Mode (SC) WDM -TX: 1550nm/RX: 1310nm -40Km
 M: Single Mode (ST) -20Km
 N: Single Mode (SC) -20Km
 O: Single Mode (SC) -40Km

*More 100FX Fibre options also available upon request.

Installation Type:

- (I) = 1: DIN-Rail (mounting kit is included)
 Optional Panel mount kit, part number: **KP-AA96-480**



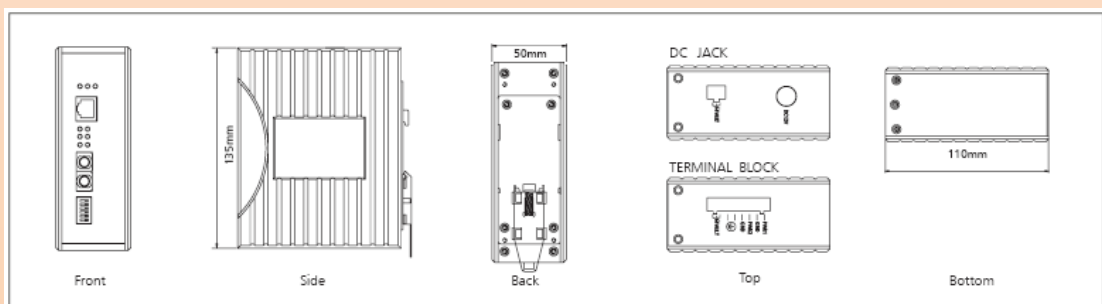
Power Connector Options:

- (P) = A: Terminal Block* / B: DC Jack**

*Options 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

**Options 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

Diagrams



Specifications

Technology

Standards:

- IEEE802.3 10Base-T, IEEE802.3u 100Base-TX/100Base-FX, IEEE802.3x

Forward and Filtering Rate:

- 14,880pps for 10Mbps
- 148,810pps for 100Mbps

Packet Buffer Memory:

- 768K bits

Processing Type:

- Store-and-Forward
- Half-duplex back-pressure and IEEE802.3x full-duplex flow control

Power

Input:

- Input Voltage: 10 to 48VDC (Terminal Block); 12VDC (DC Jack)

Power Consumption:

- 4.32W MAX. 0.36A@12VDC, 0.09A@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:

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

LED Indicators:

- Per Unit: Power Status (Power 1, Power 2, Fault), Link-Fault-Pass-Through
- Per Port: 10/100TX: Link/Activity, Full-duplex/Collision, Speed
- 100FX: Link/Activity, Full-duplex/Collision

Relay Contact:

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

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

Safety:

- Hazardous locations: Class 1, Division 2 group A,B,C&D
- UL60950-1, EN60950-1, IEC60950-1

EMI:

- FCC Part 15, Class A
- EN61000-6-3
- 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 100MHz; 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.)

NEMA TS1/2 Environmental requirements for Traffic control equipment

Terminal Assignments						
PWR1	Power Input 1 (10~48VDC)					
GND	Power Ground					
PWR2	Power Input 2 (10~48VDC)					
GND	Power Ground					
	Earth Ground					
	1. The relay opens if PWR1 or PWR2 fails 2. The relay opens if the Port Link fails (When Link Down Detection is Enabled)					
DIP	LFP	TX		FX		LINK DOWN
	Enable	F. Mode	10M	H. Duplex	H. Duplex	ON
	Disable	Auto Mode	100M	F. Duplex	F. Duplex	OFF

Power Input						
PWR	Power Input 0.76A@12VDC					
GND	Power Ground					
	1. The relay opens if PWR1 or PWR2 fails 2. The relay opens if Per Port Link is Broken (When Link Down Detection is Enabled)					
DIP	LFP	TX		FX		LINK DOWN
	Enable	F. Mode	10M	H. Duplex	H. Duplex	ON
	Disable	Auto Mode	100M	F. Duplex	F. Duplex	OFF

