

## Installation Guide

### 1 Unpacking

Open the carton and unpack the items. Your package should include an EL8020/EL8100 media converter and this Quick Install Guide. If items are missing or damaged, notify your EtherWAN representative.

Download the full manual at:

<https://www.etherwan.com>



### 2 Select Installation Location

Installation is DIN rail-mount, or wall mount (in an enclosure or industrial panel). Ensure that the power source is within 6 feet (1.8 meters), and check that there is adequate airflow.

Place the media converter on the DIN rail from above using the slot. Push the front of the media converter toward the mounting surface until it audibly snaps into place.

### 3 Connect Power

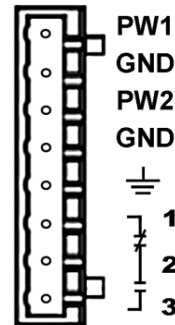
The media converter is equipped with an eight-contact terminal block. The terminal block provides dual DC power inputs, and a relay output contact. Redundant power supply is supported, but only one power input is required for operation. Note that the media converter does not have a power switch; it is turned on/off by connecting/disconnecting power.

Input voltage is **12 to 48VDC**.

The power dissipation under full load is as follows:

- 12VDC/84mA
- 24VDC/52mA
- 48VDC/28mA

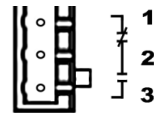
Note: Use qualified power supply that is SELV rated, or double insulation of UL 60950 or UL 61010-1 or UL 61010-2-201 standards.



Insert the DC input wires into the corresponding terminals, and tighten the clamp screws to hold them in place. Make sure that the plastic terminal block connector prongs are plugged firmly into the terminal block receptacles.

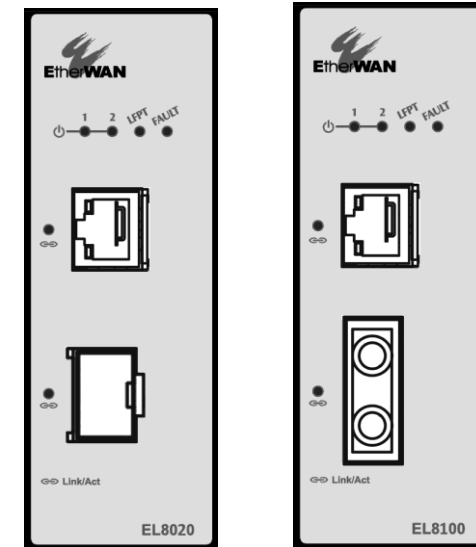
### 4 Relay Output Alarm

The media converter is equipped with relay output contacts on the terminal block for signaling of a power or port failure. The relay output can be connected to an alarm signaling device. Current is 0.6A @ 30VDC.



Relay contact	PW1	PW2	Point 1 - 2	Point 2 - 3
Alarm	Off	Off	Closed	Open
Alarm	Off	On	Closed	Open
Alarm	On	Off	Closed	Open
Non-Alarm	On	On	Open	Closed

### 4 Front Panel Reference



### 5 LED Indicators

LED	State	Indication
Fault	Steady	Power redundancy or port malfunction
	Off	Power redundancy/ports functioning normally
PW1	Steady	PW1 on
	Off	PW1 off
PW2	Steady	PW2 on
	Off	PW2 off
LNK/ACT	Steady	Connection established
	Flashing	Transmitting or receiving data
	Off	No connection established
LFPT	Steady	LFPT function enabled
	Off	LFPT function disabled

### 6 DIP Switch Settings

Port, power and LFPT settings are made very simple by means of DIP (Dual Inline Package) switches on the bottom panel of the hardened media converter.

No.	DOWN (Default)	UP
1	Enable LFPT*	Disable LFPT*
2	Enable link down alarm for copper port	Disable link down alarm for copper port
3	Enable link down alarm for fiber port	Disable link down alarm for fiber port
4	Enable Auto-Negotiation**	Enable Force mode
5	Reserved	
6	1000 fiber (EL8020 only)	100 fiber (EL8020 only)

\* LFPT=Link Fault Pass Through

\*\* Auto-Negotiation will be available for 1000 fiber only.

Fiber port supports Auto-negotiation and Force mode.

If Force mode is enabled, the media converter must be restarted in order for the new setting to take effect.

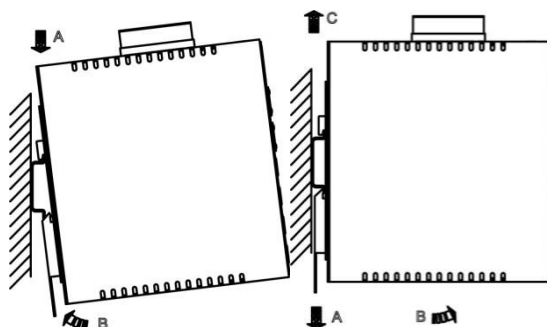
**NOTE:** DIP switch number 6 must be set to the same value (100 or 1000 fiber) for both media converters, and the SFP modules used for both media converters need to be the same speed as the value set by of DIP switch 6. Different DIP switch settings or different SFP speeds may cause abnormal function.

### 7 Other Information

➤ DIN-Rail Assembly Startup, and Dismantling

- Assembly: Place the media converter on the DIN rail from above using the slot. Push the front of the device toward the mounting surface until it audibly snaps into place.
- Startup: Connect the supply voltage to start up the media converter via the terminal block.

Dismantling: Pull out the lower edge



Power wiring information:

Use cable type - AWG (American Wire Gauge) 18-24 and the corresponding pin type cable terminals.

Use torque value 1.7 lb-in, do not use excessive force when fixing wiring.



➤ Label clean up:

Indoor use and pollution degree II, it must be wiped with a dry cloth to clean up the labeling.

➤ If the equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.

➤ The media converter shall be mounted in the Industrial Control Panel and ambient temperature is not exceed 75 degree Celsius

Manufacturer information:

**ETHERWAN SYSTEMS, INC.**

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- Altitude up to 2000 m
- Humidity range (Operational): 5% to 95%, non-condensation
- Make sure that the equipment receives adequate ventilation. Do not block the ventilation holes of the equipment.
- Open type