

# Installation Instructions

E333135 Class P

## 75W /B LED Driver

## 1. Safety instructions

Before installing or performing routine maintenance upon this equipment, follow the general precautions listed in this section.

The product should only be installed and connected by a qualified, licensed electrician. Maintenance should be performed by qualified persons familiar with the product's construction and operation, as well as any hazards involved.

Do not install damaged product! This product has been properly packed so that no parts should have been damaged during transit. Inspect to confirm.



### **DANGER: RISK OF ELECTRIC SHOCK**

- Disconnect or turn off power before installation or maintenance.
- Verify that supply voltage is correct by comparing it with the product information.
- Make all electrical and grounded connections in accordance with all applicable local code requirements.
- All wiring connections should be capped with UL approved recognized wire connectors.
- All unused connector openings must be capped.



### **WARNING: RISK OF BURN OR FIRE**

- Do not exceed maximum wattage, ratings, or published operating conditions of product.
- Do not overload.
- Follow all manufacturer's warnings, recommendations and restrictions to ensure proper operation of product.



### **CAUTION: RISK OF DAMAGE DUE TO ESD (ELECTROSTATIC DISCHARGE)**

- ESD can damage product(s). Personal grounding equipment must be worn during all installation of the unit.
- Do not touch individual electrical components as this can cause ESD and affect product performance.



### **CAUTION: RISK OF PRODUCT DAMAGE**

- Do not stretch or use cable sets that are too short or are of insufficient length.
- Do not tamper with contacts.
- Do not modify the product.
- Do not change or alter internal wiring or installation circuitry.
- Do not use product for anything other than its intended use.



### **CAUTION: CONDITIONS**

- Use only within an enclosure.
  - For use in damp and dry locations.
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## 2. Models and specifications

The eldoLED 75W /B LED driver product family consists of multiple driver configurations, which have been listed in Table 1.

### 2.1 Electrical ratings

Model	Input (AC)			Output ratings (DC)			
	Voltage	Frequency	Max current	Max voltage	Current	Max power	Control
DL75B-M2A0D *	120-277V	50/60Hz	0.9A	60V	0.25-1.4A	75W	DALI
EC75B-M1A0A	120-277V	50/60Hz	0.9A	60V	0.7-2.1A	75W	0-10V
EC75B-M1A0D	120-277V	50/60Hz	0.9A	60V	0.7-2.1A	75W	DALI
EC75B-M1A0Z	120-277V	50/60Hz	0.9A	60V	0.7-2.1A	75W	LEDcode
SL75B-M2A0D *	120-277V	50/60Hz	0.9A	60V	0.25-1.4A	75W	DALI
SL75B-M2A0A *	120-277V	50/60Hz	0.9A	60V	0.25-1.4A	75W	0-10V
SL75B-M1A0A	120-277V	50/60Hz	0.9A	60V	0.7-2.1A	75W	0-10V
SL75B-M1A0D	120-277V	50/60Hz	0.9A	60V	0.7-2.1A	75W	DALI
SL75B-M1A0Z	120-277V	50/60Hz	0.9A	60V	0.7-2.1A	75W	LEDcode

\* Dual output channels

### 2.2 Temperature ratings

For all models, the ambient temperature range is -20 °C to 50 °C.

### 2.3 Mechanical dimensions

For all models, the ambient temperature range is -20 °C to 50 °C.

	Length (mm)	Width (mm)	Height	Height with PEM inserts (mm)
Nominal	174.4	71.9	29.4	38.2
Deviation	1.2	1.2	0.5	



Your LED driver's web page features a STEP and/or IGS file of the driver for design-in purposes.

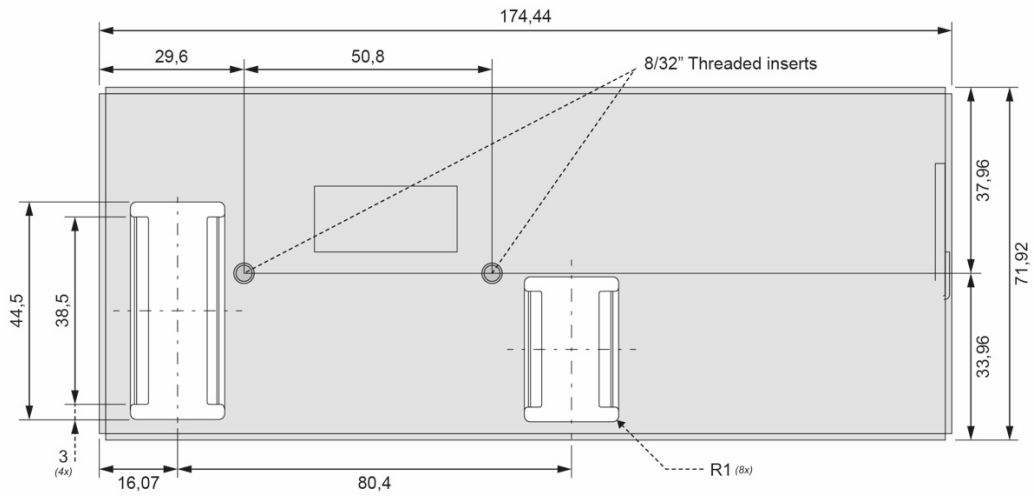


Figure 1 – 2-channel 75W /B: dimensions, bottom view

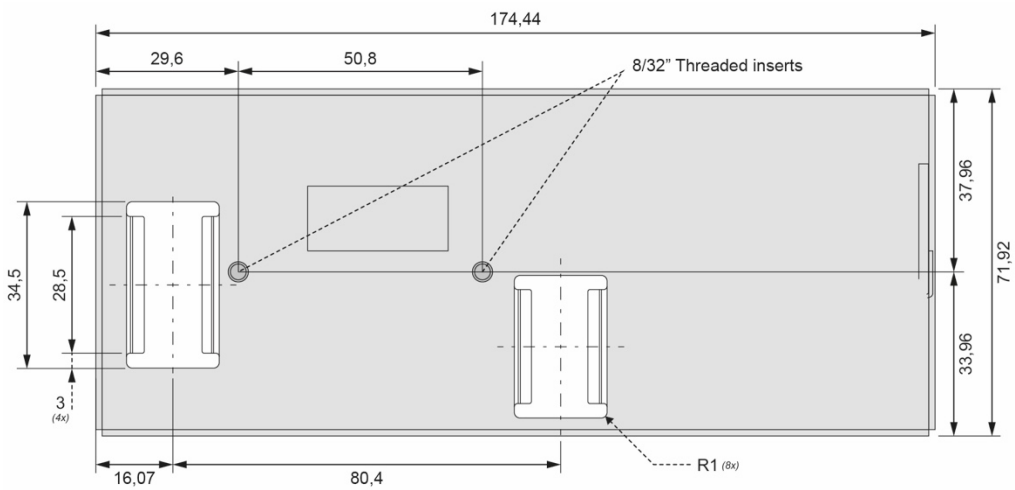


Figure 2 – 1-channel 75W /B: dimensions, bottom view

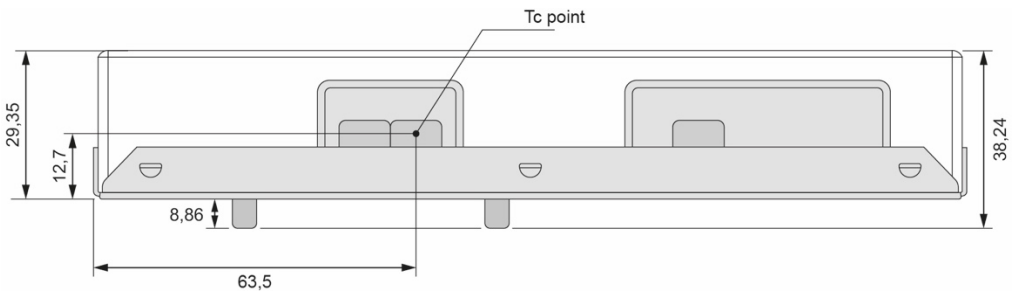


Figure 3 – 75W /B: dimensions, side view

### 3. Installation

#### 3.1 Required tools

- Wrench tool for 8/32" nuts
- Phillips screw driver 0.3 x 1.8 mm

#### 3.2 Additional material

- Nut 8/32" x2 for fixation

#### 3.3 Mounting the LED driver

Your LED driver features 8/32 threaded studs for mounting purposes:

1. Remove knockouts on junction box to feed a driver to fixture as shown in Figure 4.
2. Attach the 75W /B driver to the junction box and tighten the nuts as shown in Figure 4.

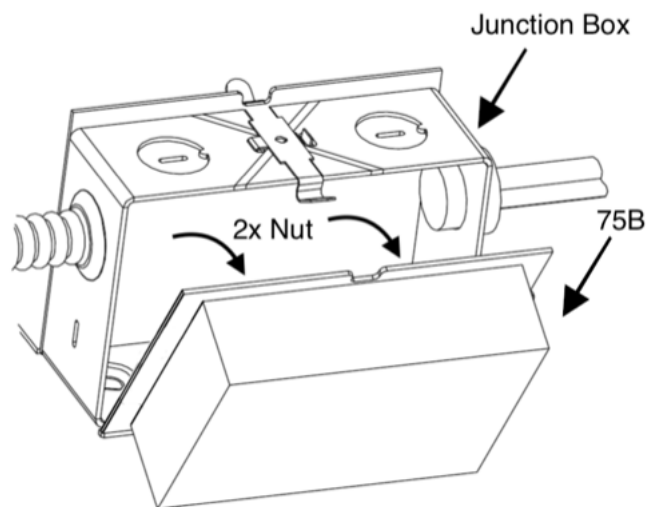


Figure 4 – Fastening the LED driver to the junction box

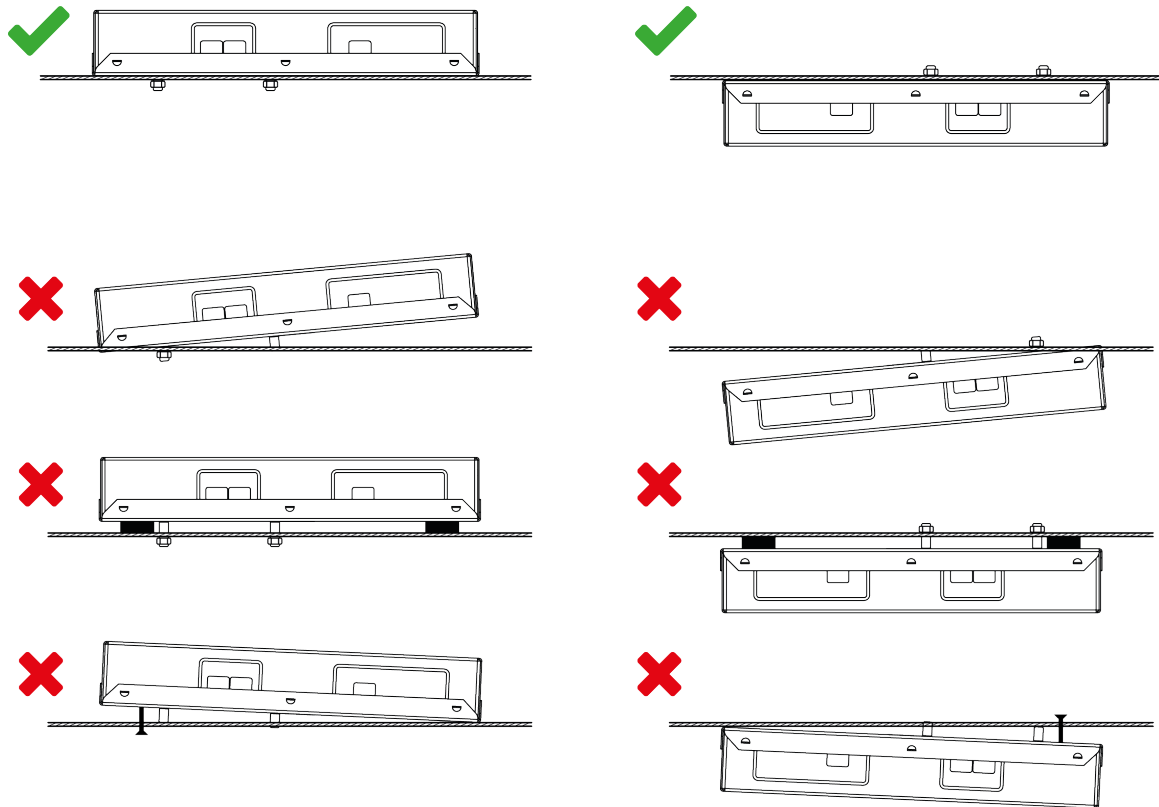


Figure 5 – Do's and don'ts when mounting the LED driver

### 3.4 Wiring the LED driver

#### 3.4.1 Mains

The LED driver 75W/B has been designed for use with universal mains voltage input of 120-277V AC, 50-60Hz.

#### 3.4.2 0-10V

Connect your 0-10V control device to the '0-10V+' and '0-10V-' connector on the 75W /B driver.

#### 3.4.3 DALI

Use the DALI connectors to connect the 75W /B driver to a DALI network. Always combine a DA+ and DA- connector for either data input or data output.

#### 3.4.4 LEDcode/NTC

All 75W/B drivers are programmable via TOOLbox pro.

The LEDcode input can be used for the thermal measurement. For extensive thermal management purposes, you can use an NTC thermistor. This sensor can be fastened on or near the LED engine, and its wires connected to the LEDcode/NTC connectors.



Figure 6 - Examples of NTC thermistors

The NTC thermistor feeds the temperature values that it detects to the driver. Whenever these values exceed the predefined NTC temperature limit, the driver will gradually decrease the light output until normal operating temperatures are reached.

You can connect a 47kOhm NTC thermistor to the LEDcode/NTC interface for this closed loop thermal control. Recommended NTC thermistors include:

- 23816403472 (leaded)
- NTCASCWE3473J (screw)

#### 3.4.5 General wiring specifications

Wire type	AWG20 – AWG16, 0.5-1.5mm <sup>2</sup>
Wire core type	Solid copper
Wire strip length	9mm

The maximum length of LED wiring is 36m / 118ft from LED output to LED load when using 16 AWG type wires.  
Refer to the table below for the maximum LED wiring length for other wire types:

AWG value	20	19	18	17	16
Distance (m)	14	18	22	28	36
Distance (ft)	46	59	72	92	118

Please observe a voltage drop over long wire lengths: the longer the wire length between LED output and LED load, the lower the forward voltage is that is available per LED output.

### 3.4.7 Connections



**WARNING:** risk of electrical shock. May result in serious injury or death. Disconnect power before servicing or installing.

**CAUTION:** the device may only be connected and installed by a qualified electrician. All applicable regulations, legislation and building codes must be observed. Incorrect installation of the device can cause irreparable damage to the device and the connected LEDs.

**CAUTION:** pay attention when connecting the LEDs: polarity reversal results in no light output and often damages the LEDs.

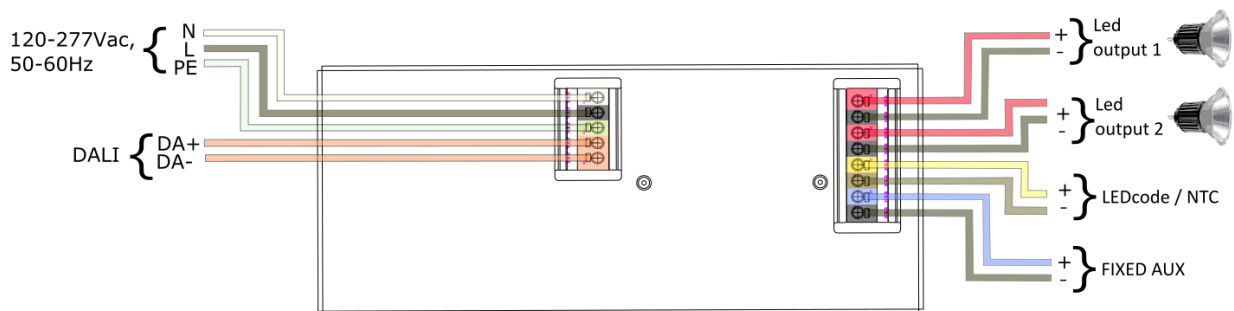


Figure 7 – Wiring for the dual output channel DL75B-M2A0D and SL75B-M2A0D

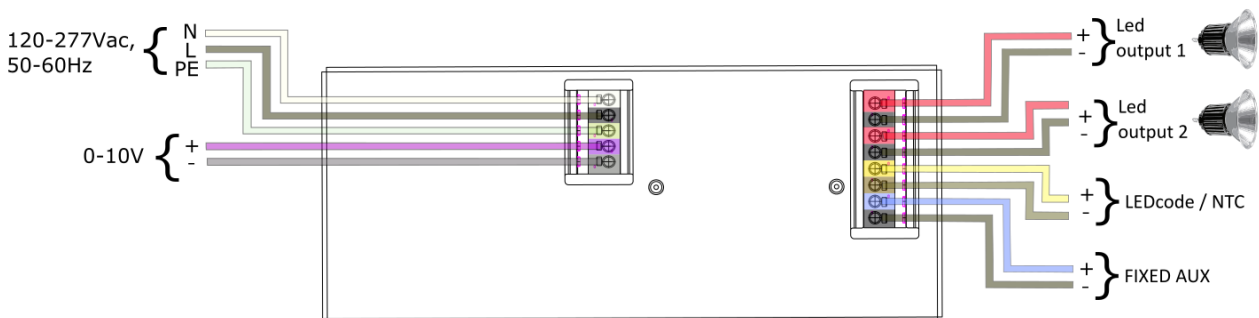


Figure x – Wiring for the dual output channel SL75B-M2A0A





Figure x – Wiring for the EC75B-M1A0D and SL75B-M1A0D



Figure x – Wiring for the EC75B-M1A0A and SL75B-M1A0A

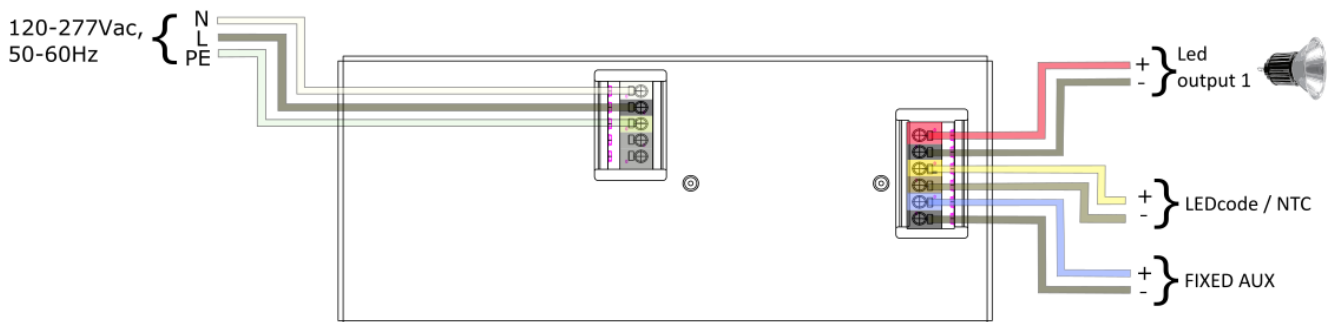


Figure x – Wiring for the EC75B-M1A0Z and SL75B-M1A0Z

## 4. Configuring the 75W /B LED driver

The 75W/B is delivered as a configured device, but can be reconfigured. To (re)configure the LED driver, use the following hardware and software tools :

- Programming hardware: TOOLbox pro  
<https://www.eldoled.com/led-drivers/tooling/programming-hardware/>
- Software: FluxTool  
<https://www.eldoled.com/led-drivers/tooling/programming-software/fluxtool/>

## 5. Troubleshooting

The maximum length of LED wiring is 100m / 328ft from LED output to LED load when using 16 AWG type wires.

Refer to the table below for the maximum LED wiring length for other wire types:

Failure description	Troubleshooting action
No light	<ul style="list-style-type: none"> <li>• Check mains voltage</li> <li>• Check wire connections:               <ul style="list-style-type: none"> <li>○ Mains line wires</li> <li>○ LED output wires</li> </ul> </li> <li>• LED output polarity</li> <li>• Control lines shorted (0-10V)</li> </ul>
No dimming	<ul style="list-style-type: none"> <li>• Check the control lines connection</li> <li>• If the dimming device is powered by a fixed AUX voltage, check the voltage</li> </ul>
Flashing	<ul style="list-style-type: none"> <li>• Check mains voltage</li> <li>• Check LED string length (output voltage greater than 55V)</li> </ul>
Low light output	<ul style="list-style-type: none"> <li>• LEDcode output short</li> </ul>
Dimming lower light	<ul style="list-style-type: none"> <li>• Output power exceeds 75W</li> </ul>

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