

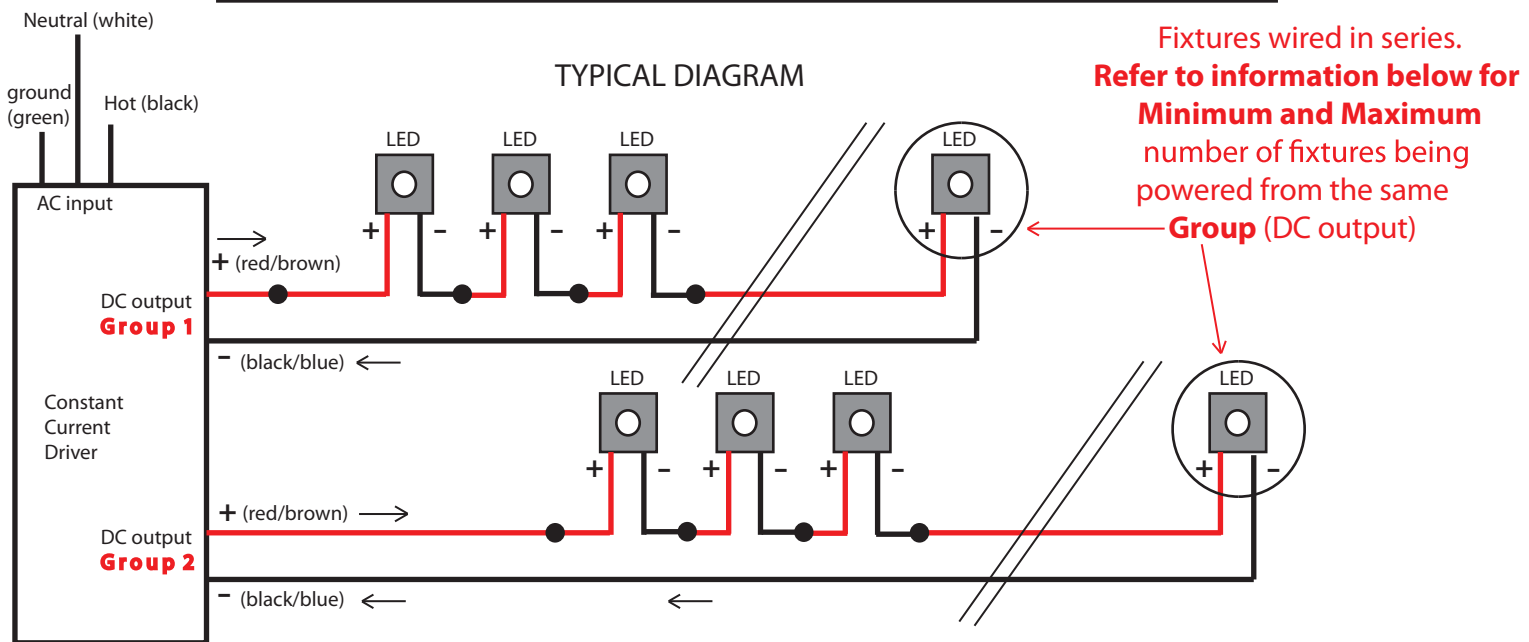


# Constant Current drivers

## Wiring Key Points

1. This product shall be installed by a qualified electrician.
2. Make sure the main power supply to the driver is turned off when wiring either the LEDs or driver.
3. LEDs shall be wired in series as shown in wiring diagram. CAUTION: parallel wiring will damage LEDs.
4. Wire shall be 18 awg stranded minimum. Large gauge wire shall be used to limit voltage drop in order to maintain the proper operating voltage. Take every precaution to avoid interference from other electrical circuits and equipment.
5. Dimming circuits are more sensitive to voltage drop and electrical interference from other electrical sources.
6. Isolating LED wiring by dedicated circuit for each control zone is recommended.
7. Contractor shall verify the fixture quantities connected to the driver are compatible with the driver's specifications prior to energizing the circuit.
8. All Class II power cable remote wiring and driver enclosures by others.

**LED's can be permanently damaged if these points are not followed**



Driver	AC Input	Dimming	Minimum number of fixtures	Maximum number of fixtures
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Group 1:

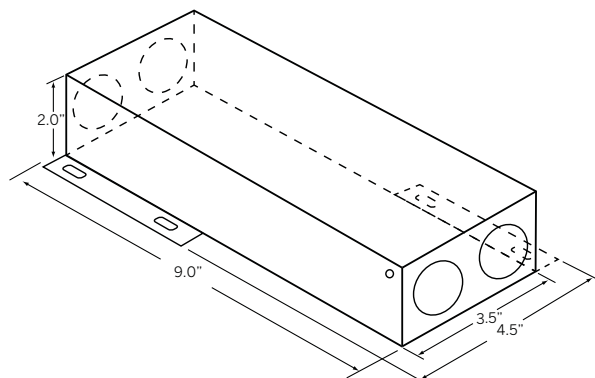
Group 2:

Please note: Dimming/control wiring not shown in the diagram above. A relay or Powerpack may be required. Running separate line side (line voltage) and controls (low voltage) leads may be required. Refer to the NEC, your local jurisdiction and the 0-10V dimmer or dimming system manufacturer you are planning on using for additional considerations on how to wire the 0-10V control leads.

**inter•lux**

Project:	Type:	Date:
Manufacturer:	Fixture:	Page:

## Dry Location Enclosure



### Maximum Wiring Distance Guide\*

Wire Gauge	Maximum Lead Length
18	72 ft (22 m)
16	118 ft (36 m)
14	150 ft (46 m)
12	200 ft (61 m)

\*Actual distance must be calculated by installer. Must comply with NEC code.

Our drivers are programmed to Linear dimming curve by default.

Compatible/Recommended dimmers and interfaces\*:

- Lutron Diva DVSTV (Wallbox dimmer)
- Lutron Nova T NTSTV (Wallbox dimmer)
- Lutron Maestro MS-Z101/MS-Z101-V (Wallbox dimmer/sensor)
- Lutron PowPak 0-10V RMJ-5T-DV-B (Energi Tripak)
- Lutron GRX-TVI (0-10V interface for Grafik QS and some commercial dimming panels)
- Lutron TVI-LMF-2A (EcoSystem to 0-10V interface)
- Lutron QSN-4T16-S (Energi Savr Node 0-10V)
- Lutron TVM2 module (HomeWorks and commercial dimming panels)

*\*Consult factory for any dimmer not listed above or if programming to a logarithmic dimming curve is required before ordering the drivers.*



### 50W 0-10V Dimmable LED Driver

SOLOdrive 561 is a 0-10V dimmable, constant current LED driver. Dimming is beautiful - smooth all the way down to 0. Its two LED outputs offer the possibility of driving a very high power 50W LED array connected to a single output, or driving two strings of 15 LEDs at 350mA. SOLOdrive is programmable to suit a wide application area and LEDcode allows easy extension of the SOLOdrive's feature set with time, motion and brightness based intelligence.

### Applications

- Office lighting
- Next-generation 'T5' luminaires
- Architectural lighting
- Hospitality lighting
- Low Bay lighting
- Signage / advertising lighting
- Retail lighting
- Public area / park / street lighting
- Display lighting

### Features & benefits

#### Input

- Voltage: 120-277VAC
- Current, max: 0.7A
- Frequency: 50/60Hz
- 0-10V dimmer input



SOLOdrive 561/M

#### Output

- Class 2 LED outputs (x2)
- Voltage: 55V typ
- Current range: settable from 200mA to 1,050mA for each LED output separately
- Power: 50W max

#### General

- Power factor: > 0.9
- 0-10V compatible (IEC 60929 Annex E). SOLOdrive 561 is a current source driver, compatible with both current sink and current source controllers. For a list of compatible 0-10V dimmers, please visit [www.eldoled.com/compatibility](http://www.eldoled.com/compatibility)  
Note that the driver's 0-10V interface is not insulated from the LED outputs, meaning the insulation class (basic or double) of the dimmer will determine the final insulation class of the LED outputs. If the 0-10V dimming signal is only basic insulated, LED outputs are considered ELV (not SELV).
- Hybrid HydraDrive: efficient, smooth and flicker-free dimming
- Full dimming control: 100% to 0%, choice of linear or logarithmic dimming curve
- Highly efficient over a wide power and voltage range: 89% at full load, ≥ 85% above 67% load
- Maximum (rated) power available over wide LED voltage (30-55V) and LED current range (200-1,050mA)
- NTC interface for robust thermal management
- LEDcode: programming interface (LED output current, NTC temperature, dimming curve, minimum dimming level) and sensor/extended feature set interface



SOLOdrive 561/S



SOLOdrive 561/A

### Product offering

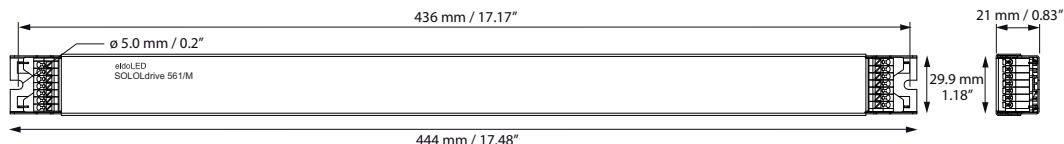
#### Description

Description	Product	Order no.
SOLOdrive AC, 50W, 0-10V, 1 control channel, constant current, 2x 60V LED outputs, long metal	SOLO 561/M	SL0561M1
SOLOdrive AC, 50W, 0-10V, 1 control channel, constant current, 2x 60V LED outputs, square metal	SOLO 561/S	SL0561S1
SOLOdrive AC, 50W, 0-10V, 1 control channel, constant current, 2x 60V LED outputs, square metal/plastic	SOLO 561/A	SL0561A1

**Dimensions, weight, packaging**

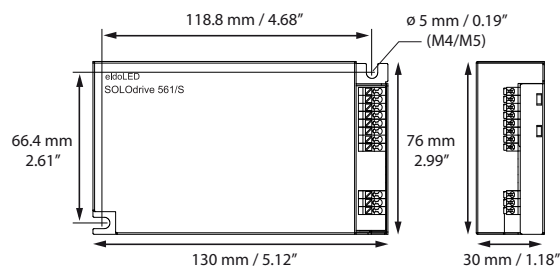
**SOLOdrive 561/M**

- Weight: 360 g, 12.7 oz
- Packaging: 4, 10 or 40 pcs/carton



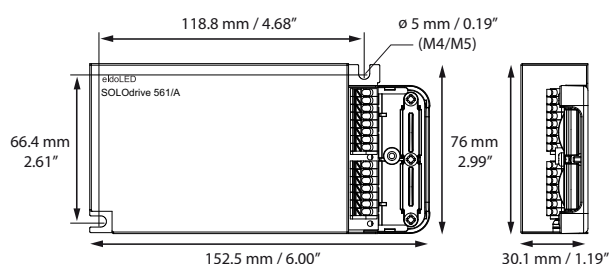
**SOLOdrive 561/S**

- Weight: 350 g, 12.35 oz
- Packaging: 6, 10 or 45 pcs/carton



**SOLOdrive 561/A**

- Weight: 372 g, 13.12 oz
- Packaging: 6, 10 or 45 pcs/carton



**Connections**

**Connectors**

- LED outputs: + and - (x2)
- LEDcode / NTC: + and -
- 0-10V: + and -
- Power: Line, Neutral and Ground

**Wiring**

- Cross section: 0.5 - 1.5 mm<sup>2</sup>, AWG 20 - 16
- Strip length: 9 mm / 0.35 in.

**LEDcode configuration**

- USB-LEDcode interface: TOOLbox pro (part number: TLU20502)
- FluxTool software: for Mac and PC freely downloadable from [www.eldoled.com/fluxtool](http://www.eldoled.com/fluxtool)

**Other information**

**Certifications**

- CE
- IEC 61347, IEC 62384, EN 55015, EN 55022, IEC 61000-3-2, IEC 61547, IEC 60929 Annex E
- UL: Recognized Component for US and Canada (file no. E333135), according to UL1310 and UL8750. US: Class 2 output. Canada: Non-Class 2 output. (SOLOdrive 561/M pending)

**Environmental ratings**

- Ta range: -20°C...+50°C / -4°F...+122°F
- Tc max: 85°C / 185°F
- For use in damp and dry locations

**Control compatibility**

- Standard 0-10V wall mount dimmers and switch controls



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**Other documentation and support**

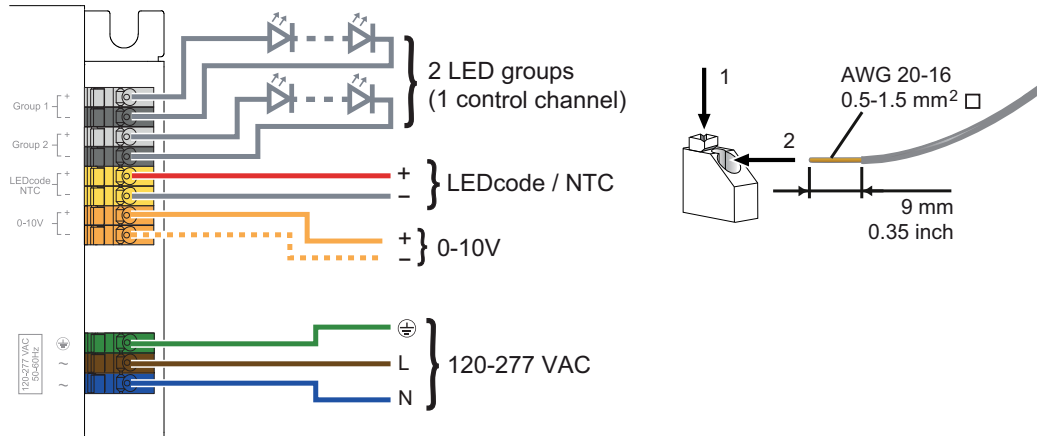
Visit [www.eldoled.com/ACsupport](http://www.eldoled.com/ACsupport) for further documentation such as quick start guide, wiring diagram, tech sheet and 3D IGES files.


**Warranty**


eldoLED represents and warrants that for a period of 3 (three) years, as of the date of invoice, Products materially meet the specifications and specifically agreed upon quality, both as stated in the applicable datasheet and/or written design-in specifications, or as stated in writing otherwise by eldoLED, provided that these specifications are explicitly designated by eldoLED as "warranted specifications".

For the complete warranty text, visit [www.eldoled.com/terms](http://www.eldoled.com/terms).

 Pay attention when connecting the LED groups:  
polarity reversal results in no light output and often damages the LEDs.



 **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.


### LED group


Indicates the location of the connectors for your LED groups. These LED groups are controlled over one channel.

### LED wiring distance

Maximum wiring distance at full load:

AWG value	20	19	18	17	16
Distance (m)	14	18	22	28	36
Distance (ft)	45.9	59	72.2	91.9	118.1

 Please observe voltage drop over long cable lengths.

 Longer cable lengths increase EMI susceptibility.

### LEDcode/NTC

LEDcode allows configuration of

- Dimming curve: lin / log
- Minimum dimming level
- NTC throttle temperature
- LED drive current per output: from 200mA-1,050mA in 1mA steps

Programming the driver via LEDcode requires a TOOLbox pro and FluxTool software.

Connecting a 47kΩ NTC thermistor enables closed loop thermal control. The NTC throttle temperature is programmable through LEDcode.

### 0-10V

Connect your 0-10V control device to the driver's 0-10V + and 0-10V- connectors.

### 120-277 VAC

The driver has been designed for use with universal mains voltage input of 120-277 VAC, 50/60Hz.