Constant current LEDs are to be wired in SERIES and require a MINIMUM and maximum number of fixtures connected to a driver as indicated on the following page.

POWERING or TESTING less than the MINIMUM number of fixtures per driver OR connecting fixtures with the driver live OR wiring them in parallel will IMMEDIATELY and PERMANENTLY DESTROY the LEDs.

Carefully read instructions prior to installation and testing.

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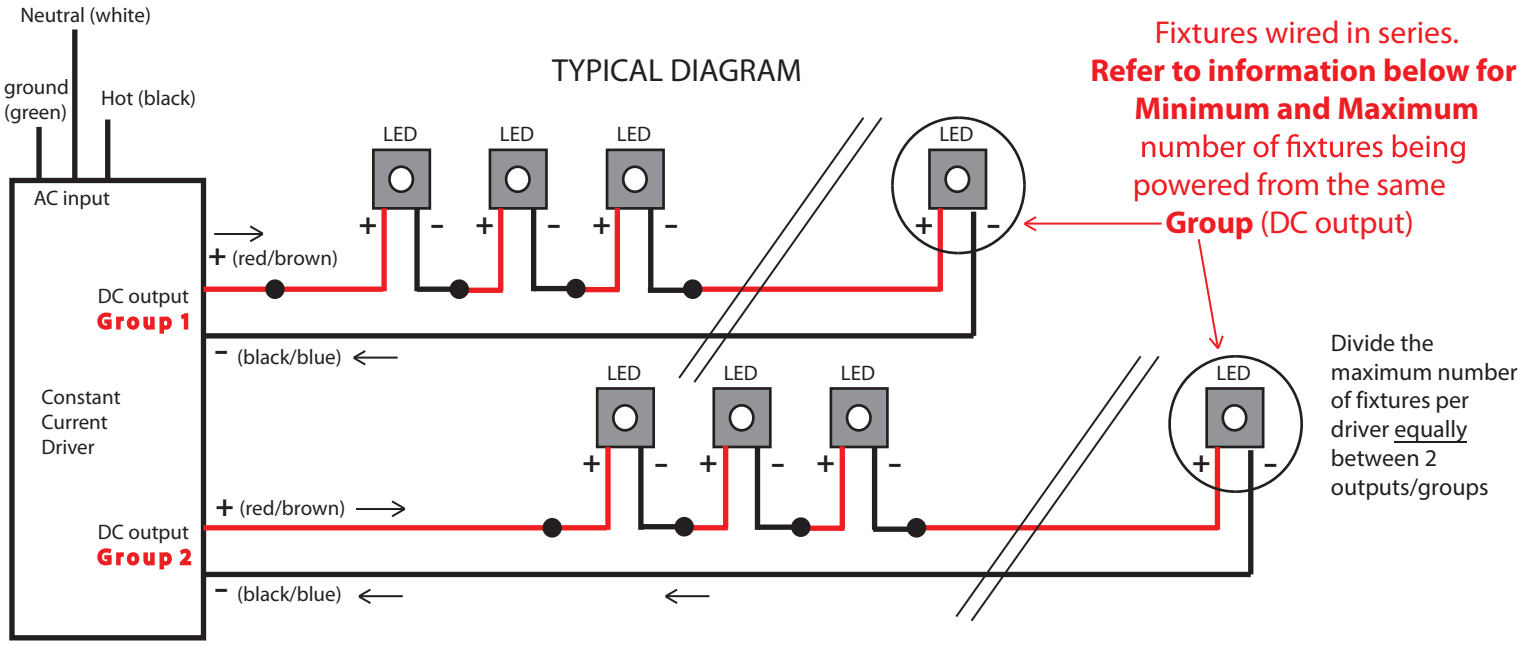
Constant Current drivers

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 interferance 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
SL0561S1	120/277V	0-10V	Group 1:	1	
			Group 2:	none	

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.

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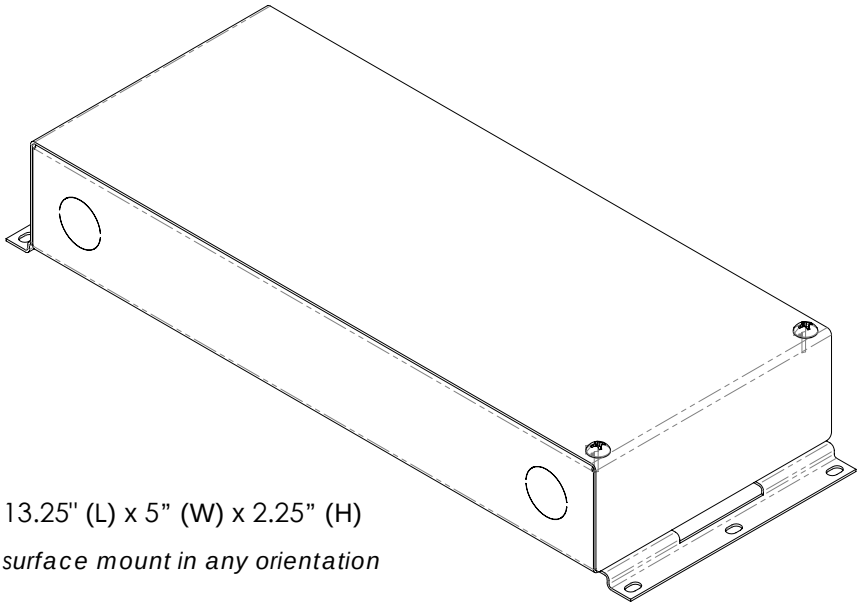
Project:	Type:	Date:
Manufacturer: LINEALIGHT	Fixture:	Page: 2 OF 5

Dry Location Enclosure



13.25'' (L) x 5” (W) x 2.25” (H)

surface mount in any orientation

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.*

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Datasheet
SOLOdrive 50W

50W 0-10V 'Dim to Dark' LED Drivers

Input characteristics

Input voltage AC	120-250V (ENEC approved) 120-277V (UL approved)
Input voltage DC	120-250V
Input current	0.7A max
Input frequency	50-60Hz
Efficiency @ full load	/B: 88% /S: 86%
Efficiency @ 2/3 load	/B: ≥86% /S: ≥85%
Power factor @ full load	>0.9C
THD @ full load	<20%
Inrush current	negligible: 30mA²s @ 277V
Surge protection	2kV DM, 2kV CM
Standby power	<0.5W

Output characteristics

LED output power	50W max
LED output current range	150-1400mA (settable)
LED output current resolution	programmable in 1mA steps
LED output current tolerance	+/- 5%
LED outputs	/B: 1 (UL Class 2) /S: 2 (UL Class 2)
LED output voltage range	1.5-55V

Control characteristics

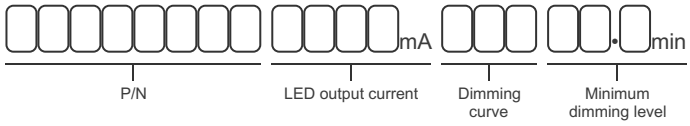
Control channels	1
Dimming protocol	0-10V
Dimming range	100%-0.1%
Dimming method	Hybrid HydraDrive
Dimming curve	logarithmic, linear, soft linear, square
Driver configuration	with TOOLbox pro and FluxTool
0-10V isolation	to line voltage input: 1500V to LED output: 3750V
0-10V current draw	<2mA

Product offering

SOLOdrive 561/S **P/N: SL0561S3**
SOLOdrive AC, 50W, 0-10V, 1 control channel, constant current, 2x 55V outputs, square metal

SOLOdrive 564/B **P/N: SL0564B2**
SOLOdrive AC, 50W, 0-10V, 1 control channel, constant current, single output, bottom feed, square metal

Order number configuration



P/N: for LED driver part number, see 'Product offering' above.

LED output current: in 1mA steps, e.g. "0258", "888", etc.

Dimming curve: enter "LOG" for logarithmic, "LIN" for linear, "SLN" for soft-linear, "SQU" for square dimming curve.

Minimum dimming level: write to one decimal place, e.g. "05.0" for 5%, "07.5" for 7.5%, "10.1" for 10.1%, etc. Leave blank if default minimum dimming level (0.1%) is required.

Protection

LED output short	yes
Overload	yes
Reverse polarity	yes, for LED output
Restart after protection	yes

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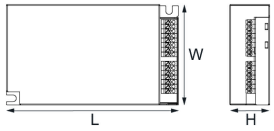
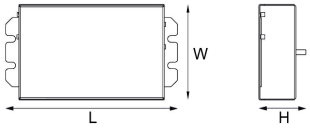
Datasheet
SOLOdrive 50W

Dimensions, weight and packaging

SOLOdrive 561/S	
LxWxH	130x76x30mm
Weight	350 g
Items per carton	6, 10 or 45 pcs



SOLOdrive 564/B	
LxWxH	130x72x34.4mm
Weight	285.5 g
Items per carton	40 pcs



Standards and certifications

Standards compliance	
EN	61347-1/-2-13, 62384, 55015, 55022, 61000-3-2, 61547
UL, Recognized Component	UL 1310, UL 8750 (Class 2 output)
FCC	47 CFR Part 15 class B
RoHS2	

Certifications

E333135

Remark	RCM certificate valid only for SL0564B2

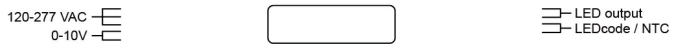
Wiring Specifications

Wire type	AWG 20-16, 0.5-1.5mm² solid or stranded copper
Wire strip length	9mm

Wiring diagrams

SOLOdrive 561/S

SOLOdrive 564/B



Thermal protection

External NTC thermistor	throttling @ 70 °C (settable)
External thermistor value	47kΩ
Recommended thermistors	238164063473 (leaded) NTCASCWE3473J (screw)

Thermal specification

Ta operating range	/B: -20 ºC ... +45 ºC for 150-900mA -20 ºC ... +40 ºC for >900-1,400mA /S: -20 ºC ... +50 ºC
Tc max	/B: 80 ºC /S: 83 ºC
Tc lifetime	/B: 73 ºC /S: 75 ºC
Lifetime @ Tc lifetime	50,000 hours

Warranty

Warranty period	3 years

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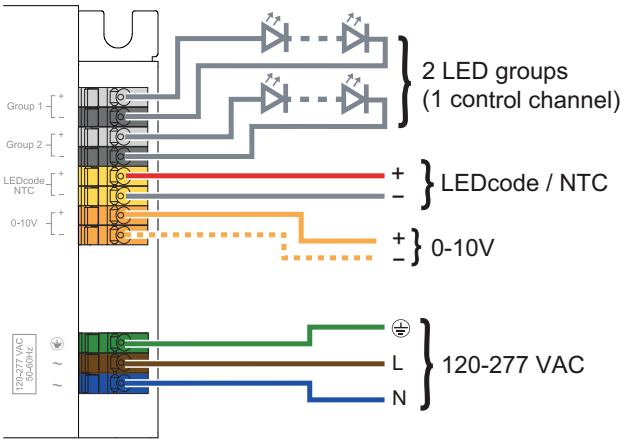
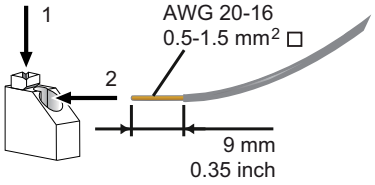
Wiring diagram SOLOdrive 561/S, 561/A (SL0561S3)

⚠ 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.