

# Inter-Lux

## Sylvania Optotronic® Constant Voltage Electronic 24V DC LED Power Supplies

### Ordering Information

Qty.	Ordering Abbreviation	Nominal Input Voltage (V)	Nominal Input Current (A)	Power Factor	Output Power Range (W)	Dimming Mode	Dimming Control	Dimming Range	Location Rating	Item Number
→	OT96W/24V/UNV/DIM	120 277	0.97 0.39	0.9	1-96	PWM	0-10V DC	10-100%	Damp	51520
	OT20W/24V/120-240V/SQ	120	0.38	0.5	0.9-20	n/a	n/a	n/a	Dry	51512
	OT75W/24V/UNV	120 277	0.76 0.33	0.99	0.9-75	n/a	n/a	n/a	Damp	51514
	OT96W/24V/UNV/JBX	120 277	0.91 0.39	0.99	0.8-96	n/a	n/a	n/a	Wet <sup>2</sup>	51626
	OT240W/3X24V/120-240V/JBX	120	2.39	0.99	0.8-240	n/a	n/a	n/a	Wet <sup>2</sup>	51627

Notes:

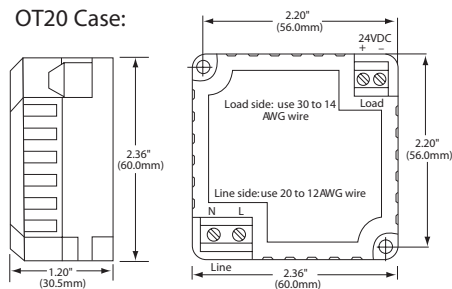
1. All power supplies can be remote mounted up to 32 feet. Although it is possible to exceed the remote mounting distance, the installer and/or end user must take precautions to prevent and/or test the effects of EMI (electromagnetic interference).
2. Use wiring rated and marked PLTC, CL3R, and "sun resistant"

### Minimum and Maximum Ratings

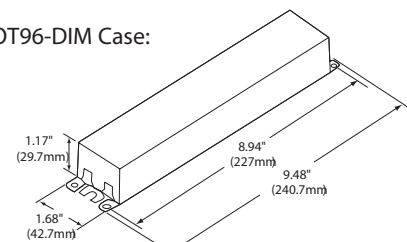
Parameter	Power Supply	Values
Ambient Temperature Range	OT20	-20°C through +50°C
	OT75	-25°C through +60°C
	OT96	-20°C through +40°C
	OT96JBX and OT240	-30°C through +70°C

### Case dimensions

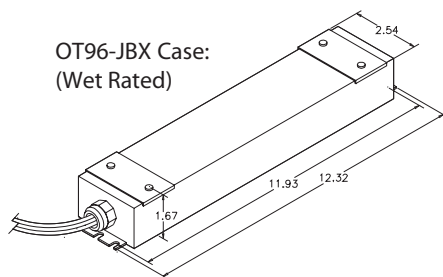
OT20 Case:



OT75 & OT96-DIM Case:

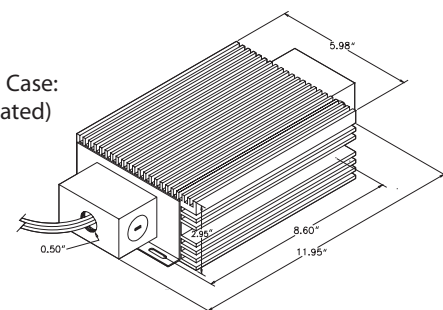


OT96-JBX Case:  
(Wet Rated)



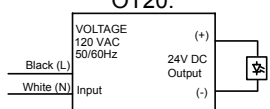
Input: wires with a UL Listed, 1/2" metallic fitting  
Output: wires with a UL Listed, 1/2" plastic fitting

OT240 Case:  
(Wet Rated)

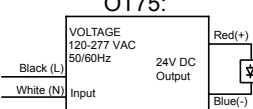


### Wiring Diagrams

OT20:

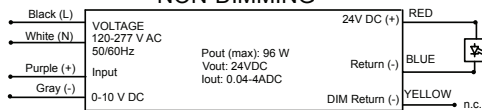


OT75:

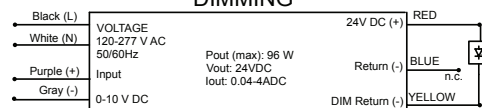


OT96DIM only:

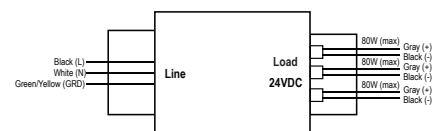
#### NON-DIMMING



#### DIMMING



OT240:



#### Specifications and Certifications

OT20, OT75, OT96, OT96DIM: UL 1310, UL48  
Recognized for US & Canada Class 2 Unit

OT96 (NAED 51626) & OT240 (NAED 51627):  
UL48 Listed for US & Canada Class 2 Unit

# Colour is our nature



### 4/6/24A Full-Colour Dimmable LED Driver

LINEARdrive DC is a constant voltage LED driver with multiple LED outputs that are controlled over four channels. It is targeted at larger networked and smaller standalone installations that require dimmable, low-power full-colour static or dynamic LED lighting. LINEARdrive DC is DALI, DMX/ RDM and LedSync compatible.

### Applications

- Entertainment lighting
- Full-colour architectural lighting
- Signage / advertising lighting
- Cove lighting
- Decorative lighting
- Dynamic colour panel lighting

### Features & benefits

#### Input

- Voltage: 12 - 28 VDC for LINEARdrive 100D/180D/720D1  
12 - 48 VDC for LINEARdrive 720D2
- Current, max:  
LINEARdrive 100D: 4A at 24V, 6A at 12V  
LINEARdrive 180D: 6A, irrespective of PSU voltage  
LINEARdrive 720D: 24A, irrespective of PSU voltage



LINEARdrive 720D

#### Output

- Voltage: 5V, 12V, 24V or 48V (5V and 48V: LINEARdrive 720D2 only)
- Max load per output:

	RGBW @ 12V	RGB @ 12V	RGBW @ 24V	RGB @ 24V	RGBW @ 48V	RGB @ 48V
LINEARdrive 100D	1.5A	2A	1A	1.3A	n.a.	n.a.
LINEARdrive 180D	1.5A	2A	1.5A	2A	n.a.	n.a.
LINEARdrive 720D1	6A	6A	6A	6A	n.a.	n.a.
LINEARdrive 720D2	6A	6A	6A	6A	6A	6A

### General

- DALI (LINEARdrive 720D only), USITT DMX512A / RDM (ANSI E1.20) and LedSync compatible
- HydraDrive: 15-bit resolution
- Dimming control: smooth dimming from 100% to 0.1%, gamma-corrected curve
- Intuitive 3-button user interface for on-the-fly configuration
- Interface for external control device: 10kΩ potentiometer, 0-10V source or momentary switch
- ShowMaster: 9 default shows, up to 20 user-defined shows, uploadable via TOOLbox and PC software

### Product offering

#### Description

- LINEARdrive DC, 100W, DMX/0-10V, 4 control channels, constant voltage, 4x LED outputs
- LINEARdrive DC, 180W, DMX/0-10V, 4 control channels, constant voltage, 4x LED outputs
- LINEARdrive DC, 720W, 48V, DMX/DALI/0-10V, 4 control channels, constant voltage, 4x LED outputs

#### Product

- LINEAR 100D
- LINEAR 180D
- LINEAR 720D

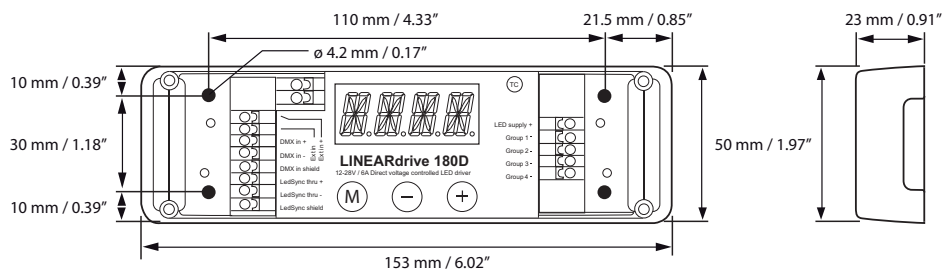
#### Order no.

- LIN100D2
- LIN180D2
- LIN720D2

## Dimensions, weight, packaging

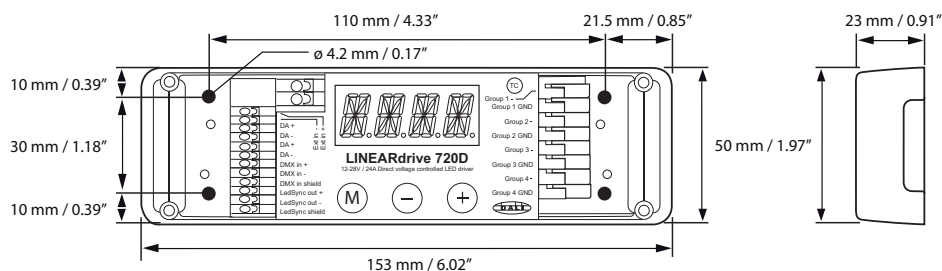
### LINEARdrive 100D/180D

- Weight: 120 g, 4.2 oz
- Packaging: 12 pcs/carton



### LINEARdrive 720D

- Weight: 144 g, 5.0 oz
- Packaging: 12 pcs/carton



## Connections

### Connectors LINEARdrive 100D/180D

- VDC: + and -
- DMX in: +, - and shield
- LedSync thru: +, - and shield
- Ext in: + and -
- LED outputs: 4 outputs with common +

### Wiring

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

### Connectors LINEARdrive 720D

- VDC: + and -
- DMX in: +, - and shield
- LedSync out: +, - and shield
- DALI: + and - (x2)**
- Ext in: + and -
- LED outputs: + and - (x4)

## Other information

### Certifications

- CE
- IEC 61347, EN 55015, IEC 61003, EN 61547
- UL: UL Recognized Component (file no. E333135)
- LINEARdrive 100D is Class 2 output.

### Environmental ratings

- Ta range: -20°C...50°C / -4°F...122°F
- Tc max: 65°C / 149°F
- For use in dry locations

### Control compatibility

- DALI control gear (LINEARdrive 720D)
- DMX512A and RDM explore & address (ANSI E1.20) control gear
- Standard 0-10V switch controls



### Europe, Rest of World

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### North America

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San Jose, CA 95110  
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### Other documentation and support

Visit [www.eldoled.com/support](http://www.eldoled.com/support) 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).

Sales support EU & Rest of World: [sales@eldoled.com](mailto:sales@eldoled.com)  
Sales support US/Canada: [nasales@eldoled.com](mailto:nasales@eldoled.com)

## Wiring diagram LINEARdrive DC 100

(LIN100D1)



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

### 12V - 28V DC IN

To connect the driver/controller to a 12-28V DC power supply unit (PSU), connect the PSU's positive voltage supply wire to the VDC+ connector and the PSU's negative voltage supply wire to the VDC- connector.

### EXT in (optional)

You have the possibility to connect an external control device (0-10V control device, 10kΩ potentiometer or show selection switch) to the driver/controller's Ext in+ and Ext in- connector. Configure the driver/controller for use with an external control device over the 3-button user interface.

### DMX in/LedSync thru (optional)

Use these connectors when the driver/controller is used in a DMX network.

For DMX in, connect the network cable's DMX+, DMX- and DMX shielding wire (the orange/white, orange and brown wire in a CAT5 cable) to the DMX in+, DMX in- and DMX in shield connector respectively.

For LedSync thru, connect the network cable's data+, data- and shielding wire to the LedSync thru+, LedSync thru- and LedSync shield connector respectively.

### LED groups

Indicates the location of the connectors to which you can connect your LED groups. R(ed) represents channel 1, G(reen) represents channel 2, B(lue) represents channel 3 and W(hite) represents channel 4. The default group color allocation can be changed over the 3-button user interface.

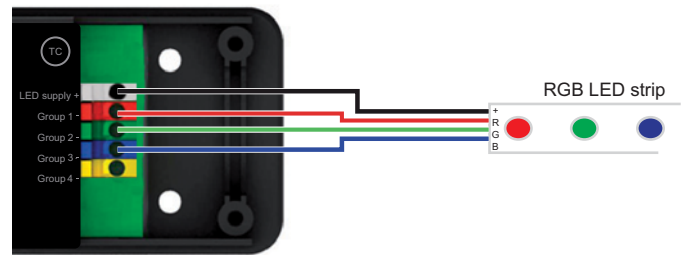
**Connecting an RGB LED strip**

Maximum current per output at 12V: 2A

Maximum current per output at 24V: 1.3A

Configuration of the LED groups:

Press M and + simultaneously, in the LED menu choose RGB and save this setting by pressing M.

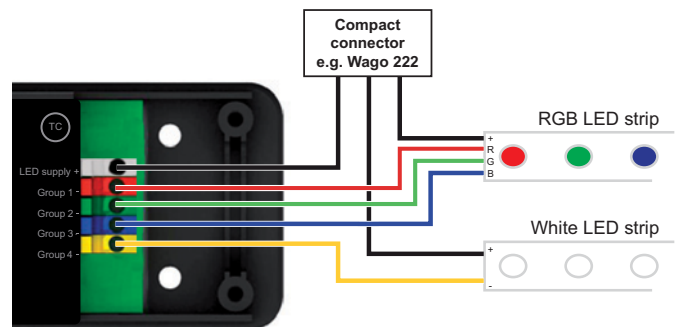
**Connecting an RGB strip and a white LED strip**

Maximum current per output at 12V: 1.5A

Maximum current per output at 24V: 1A

Configuration of the LED groups:

Press M and + simultaneously, in the LED menu choose RGBW and save this setting by pressing M.

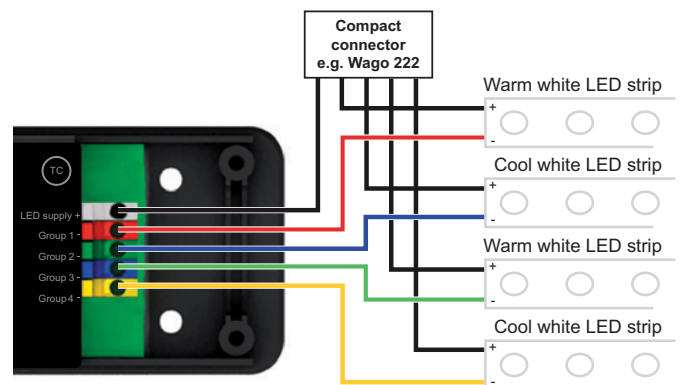
**Connecting warm white and cool white LED strips**

Maximum current per output at 12V: 1.5A

Maximum current per output at 24V: 1A

Configuration of the LED groups:

Press M and + simultaneously, in the LED menu choose 4-4L and save this setting by pressing M.

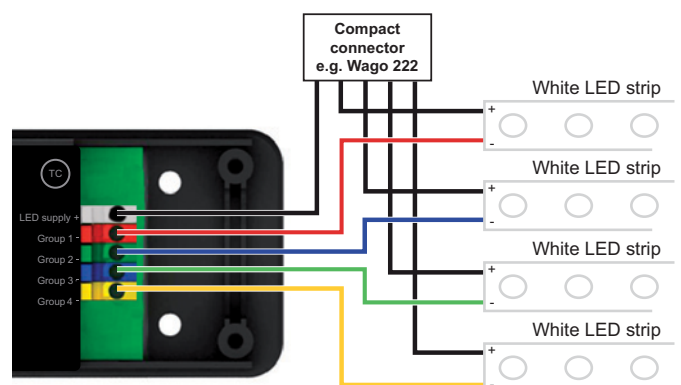
**Connecting four white or self-colored LED strips**

Maximum current per output at 12V: 1.5A

Maximum current per output at 24V: 1A

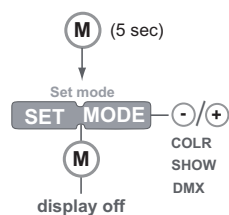
Configuration of the LED groups:

Press M and + simultaneously, in the LED menu choose 1-4L and save this setting by pressing M.

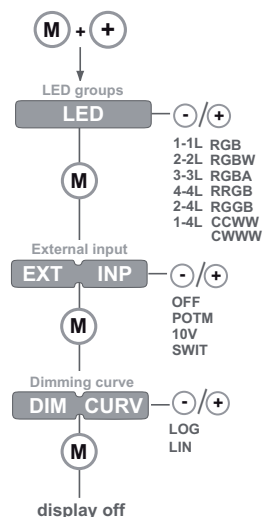


## Manual configuration

## 1. Select mode of operation:



## 2. Set LED groups:



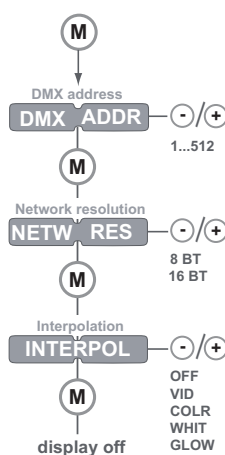
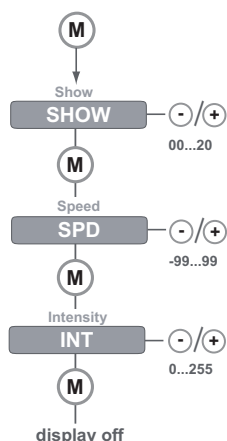
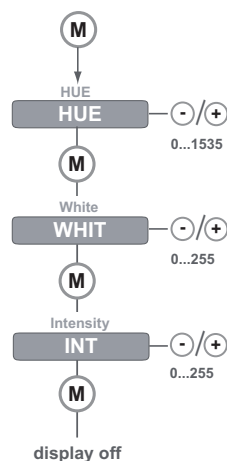
## 3. Standalone operation - Colour\*-

or

## Standalone operation - Show -

or

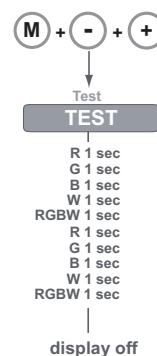
## Networked operation - DMX -



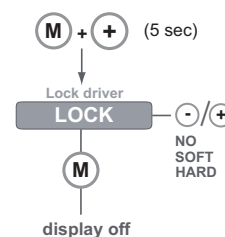
\* The colour menu depends on the LED group settings you have selected in step 2.

## Other features

## Visual test run



## Locking the configuration:



## Reset to factory defaults

