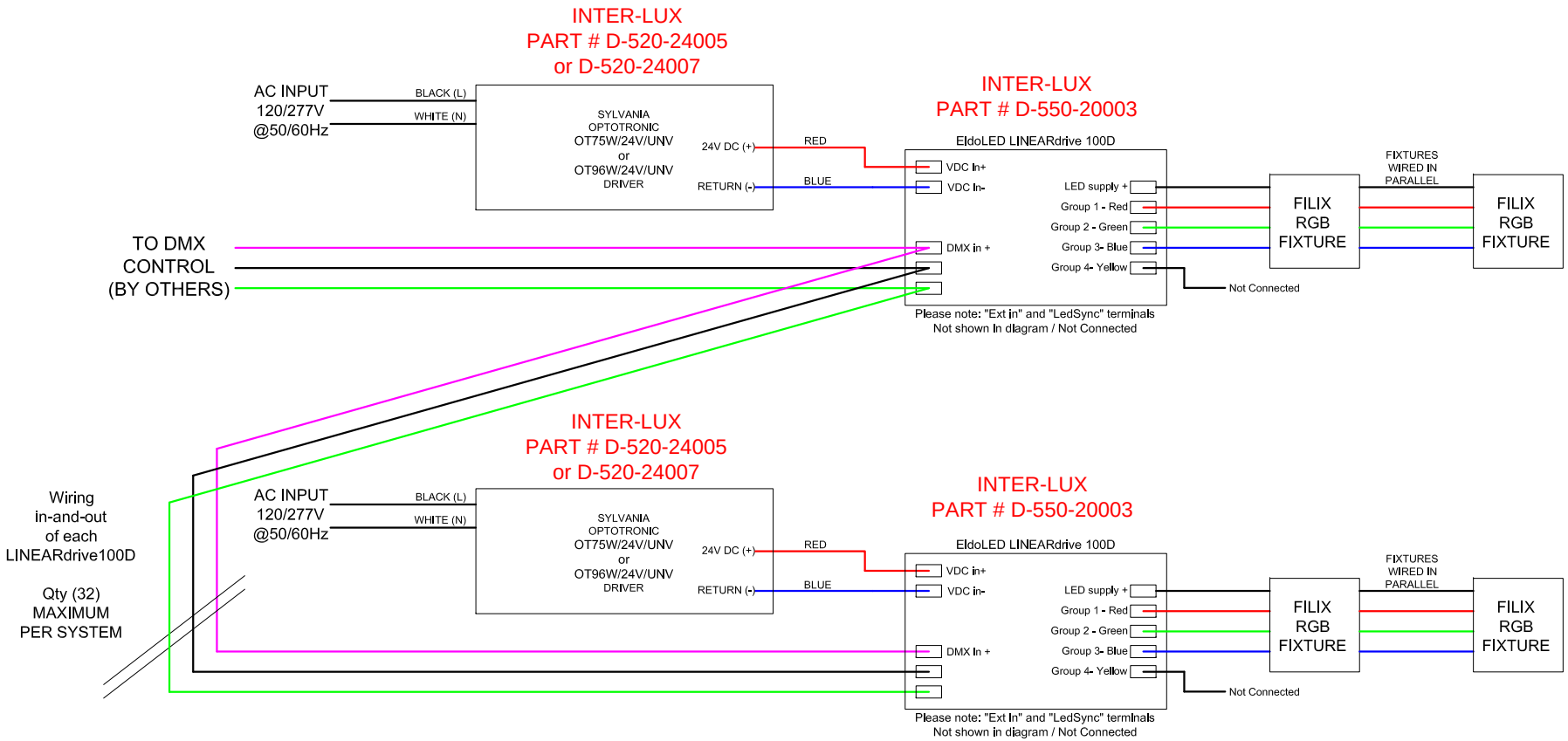


inter•lux
tools for lighting

OPTOTRONIC® Power Supply OT96W/24V/UNV

Inter-lux part # D-520-24007

GENERAL INFORMATION

Item Number	51522
Type	Constant Voltage
Output Power	96W (Max.)
Output Voltage	24V DC
Input	Universal (120-277V)

ELECTRICAL SPECIFICATIONS

Input	
Input Voltage (VAC)	120V-277V *(+/- 10%)*
Frequency Range (Hz)	50 – 60 Hz *(+/- 10%)*
Input Current (A)	0.91 @ 120V 0.39 @ 277V
Input Power (W)	111W
THD	< 20%
Power Factor	> 0.95
Inrush Current (A_{pk})	< 55A
Line Regulation	< 5%
Stand-by Power (W)	< 1.5W
Output	
Output Voltage (VDC)	24V *(+/- 5%)*
Output Current (A)	0.1 – 4.0A
Output Ripple (V)	1V
Efficiency	>85% (*Typical)*
Load Regulation	<5%

ENVIRONMENTAL SPECIFICATIONS

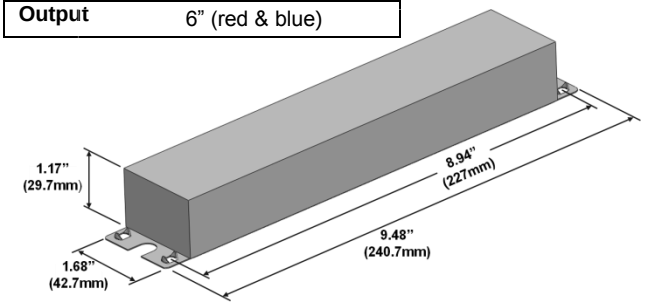
Ambient Operating Temp	-25 to 40 ºC
Max. Case Temp. Tc	75ºC
Storage Temp.	-25 to 50 ºC
Max. Relative Humidity (%)	96% non-condensing
Surge Protection (KV)	ANSI C62.41 Cat A (2.5KV)
Vibration Rating	3G
Overvoltage Protection	Yes
Short Circuit Protection	Yes
Over-temperature Protection	Yes
UL Environmental Rating	Damp
IP Rating	IP64
EMI Compliance	FCC Part 15 Class A

WIRING DIAGRAM

See page 1

MECHANICAL DIAGRAM

Wiring	Leads Only
Wire Gauge	18AWG
Input Wire	6” (black & White)
Output	6” (red & blue)



RoHS compliant

c UL us
E320395

c SA us

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INTER-LUX
PART # D-550-20003

Datasheet LINEARdrive 100D, 180D, 720D DC Series

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

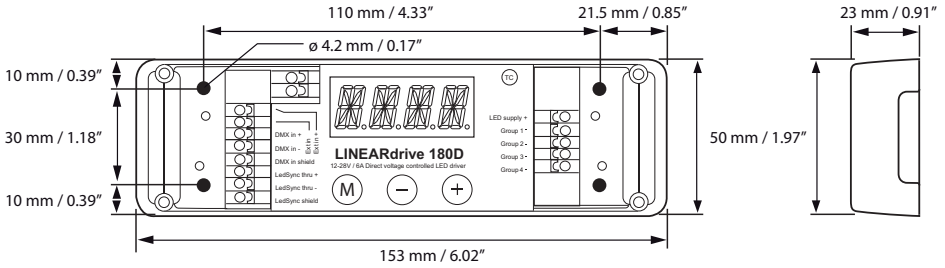
Product offering

Description	Product	Order no.
LINEARdrive DC, 100W, DMX/0-10V, 4 control channels, constant voltage, 4x LED outputs	LINEAR 100D	LIN100D2
LINEARdrive DC, 180W, DMX/0-10V, 4 control channels, constant voltage, 4x LED outputs	LINEAR 180D	LIN180D2
LINEARdrive DC, 720W, 48V, DMX/DALI/0-10V, 4 control channels, constant voltage, 4x LED outputs	LINEAR 720D	LIN720D2

Dimensions, weight, packaging

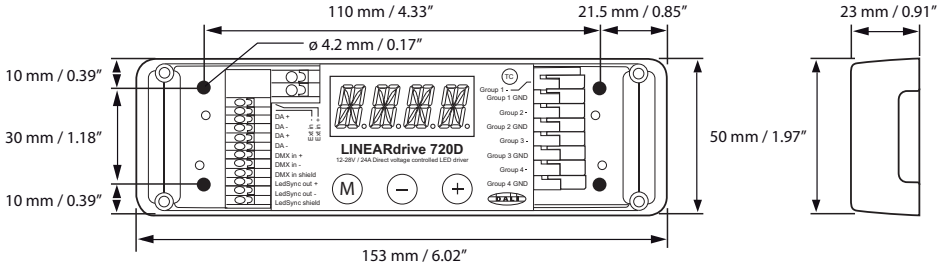
LINEARdrive 100D/180D

- 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^2, 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

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Sales support EU & Rest of World: sales@eldoled.com
Sales support US/Canada: nasales@eldoled.com

Other documentation and support

Visit 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.

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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.

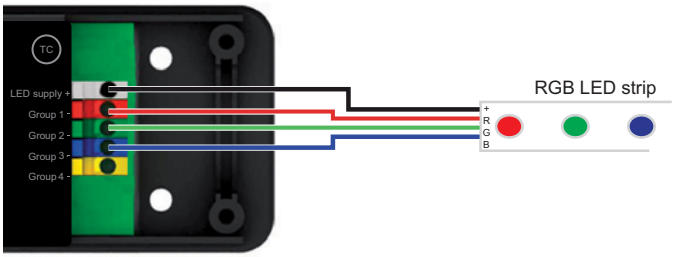
LED groups

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

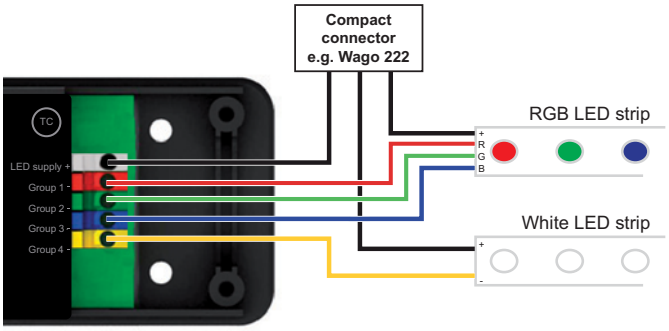
Configuration of the LED groups:
Press M and + simultaneously, in the LED menu choose RGB and save this setting by pressing M.



Connecting an RGB strip and a white LED strip

Maximum current per output at 12V: 1.5A
Maximum current per output at 24V: 1A

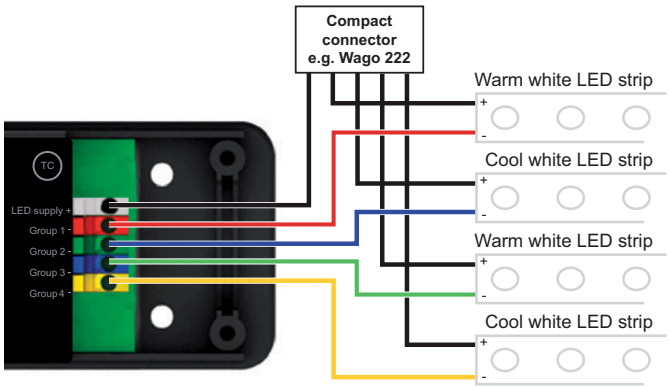
Configuration of the LED groups:
Press M and + simultaneously, in the LED menu choose RGBW and save this setting by pressing M.



Connecting warm white and cool white LED strips

Maximum current per output at 12V: 1.5A
Maximum current per output at 24V: 1A

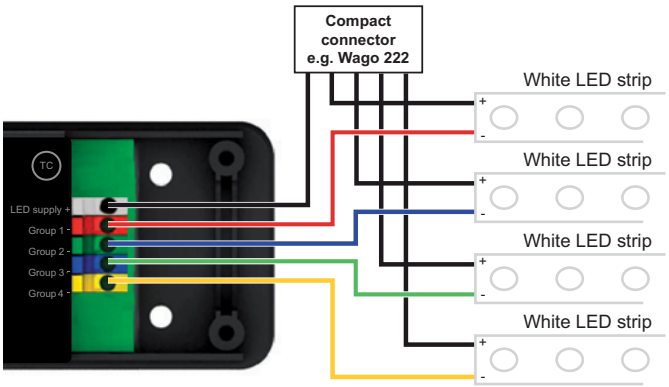
Configuration of the LED groups:
Press M and + simultaneously, in the LED menu choose 4-4L and save this setting by pressing M.



Connecting four white or self-colored LED strips

Maximum current per output at 12V: 1.5A
Maximum current per output at 24V: 1A

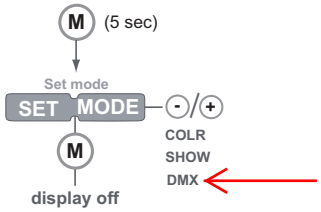
Configuration of the LED groups:
Press M and + simultaneously, in the LED menu choose 1-4L and save this setting by pressing M.



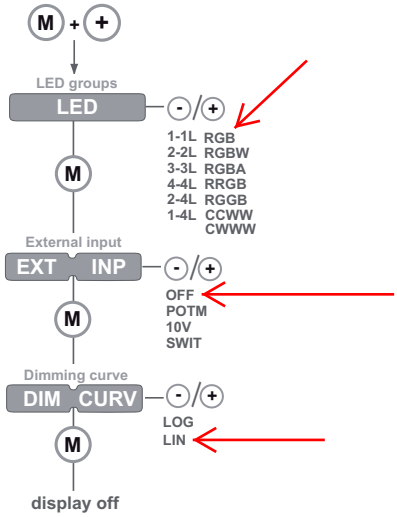
V1.1

Manual configuration

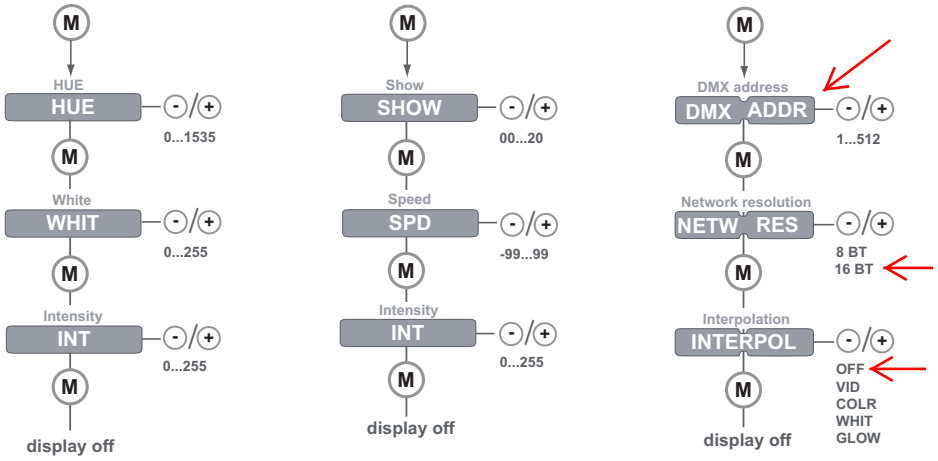
1. Select mode of operation:



2. Set LED groups:



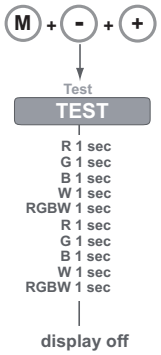
3. Standalone operation - Colour*- *or* Standalone operation - Show - *or* Networked operation - DMX -



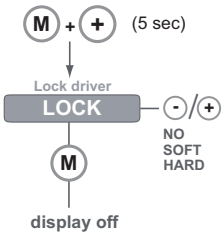
* The colour menu depends on the LED group settings you have selected in step 2.

Other features

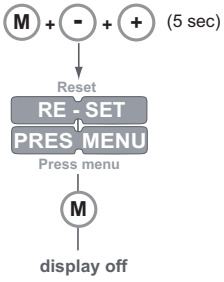
Visual test run



Locking the configuration:



Reset to factory defaults



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