eldoLED
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Datasheet

LINEARdrive 200D-D2Z2D

8A DALI Full-Colour Dimmable LED Driver

LINEARdrive

LINEARdrive gives you all the control you need for your low-voltage LED application. This constant voltage LED driver is DALI compatible and enables you to create the perfect shade of white or show sequence without an external controller. Symbiosis ensures the LED driver works seamlessly together with LED modules, controls and intelligent luminaire elements.

Product offering

LINEARdrive 200D-D2Z2D

Part number (P/N)	LN200D-D2Z2D
Product description	LINEARdrive DC, 8A, 12-24VDC, DALI, 2 control channels, constant voltage, 2x LED outputs, plastic long

Programming tools

Programming interface	TOOLbox pro (TLU20504)
Programming cable set	TOOLbox pro to LED driver, programming cable, 5pcs (TLC03051)
Programming Hand-held, Touch-and-Go	PJ0035HH1
Programming software	FluxTool

Warranty

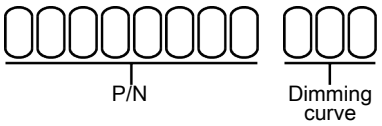
Warranty period	General Terms and Conditions

AcuityBrands.

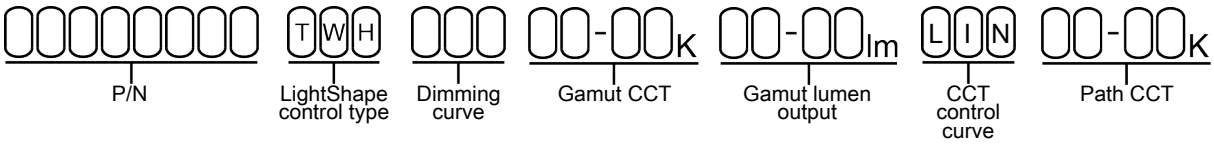
LINEARdrive 200D-D2Z2D

Order number configurator

Standard



LightShape



P/N	LED driver part number.
LightShape control type	"TWH" stands for Tunable White
Dimming curve	"LOG" for logarithmic (default) "LIN" for linear
Gamut CCT	LightShape-specific option. Enter the LEDs' CCT as "XX-YY" where XX is LED output 1 and YY is LED output 2. Available options per output: 18, 20, 22, 25, 27, 30, 35, 40, 50, 57 and 65. E.g. "18-50" for 1800K on LED output 1 and 5000K on LED output 2.
Gamut lumen output	Enter the lumen output range for LED output 1 and 2 as "XX-YY" where XX is LED output 1 and YY is LED output 2. Available range per output: from "01" for 100lm to "99" for 9900lm. E.g. "10-12" for 1000lm on LED output 1 and 1200lm on LED output 2.
CCT control curve	"LIN" for linear (default)
Path CCT	Leave blank if Path CCT requires the same values as Gamut CCT. Or specify the Path CCT values as "XXYY" where XX is LED output 1 and YY is LED output 2. Available options per output: 18, 20, 22, 25, 27, 30, 35, 40, 50, 57, 65. E.g. "18-50" for 1800K on LED output 1 and 5000K on LED output 2.

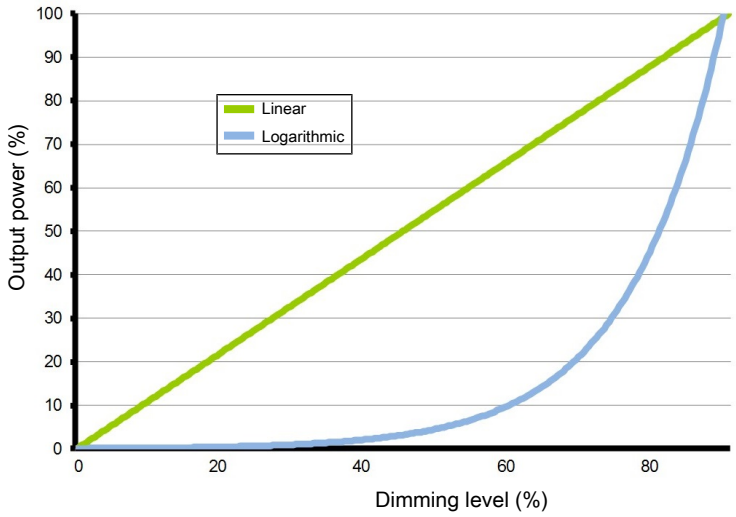
Input characteristics

Nominal input voltage DC	12 - 24V
Maximum input current	8A, irrespective of PSU voltage

Output characteristics

LED output load	8A maximum, irrespective of whether using one or both LED outputs
Maximum LED output power	224W
Number of LED outputs	2
LED output voltage	12 - 28V
Circuit protection	To prevent excessive output current from damaging the LED driver, it is highly recommended to use circuit protection appropriate for your application's nominal and inrush current requirements in combination with an OVP, OVC short circuit protected AC/DC adapter.

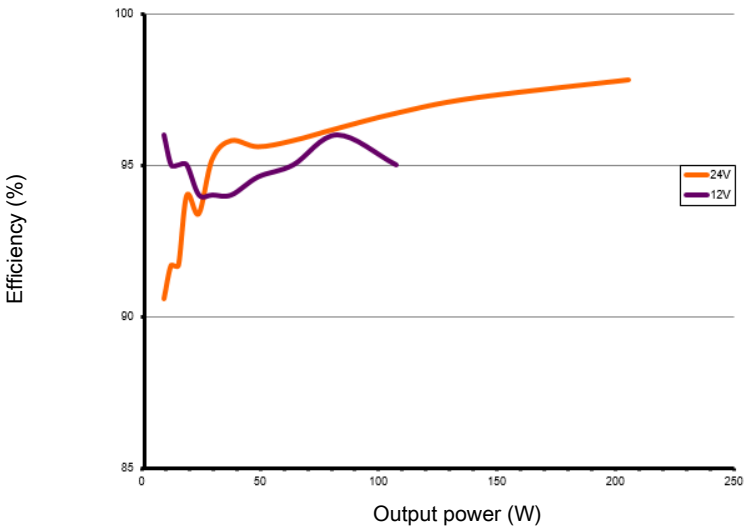
Control characteristics

Control channels	2
Control protocol	DALI
Dimming range	100% - 0.1%
Dimming curve options	Logarithmic (default) Linear
Dimming method	HydraDrive
Dimming curves	

Performance

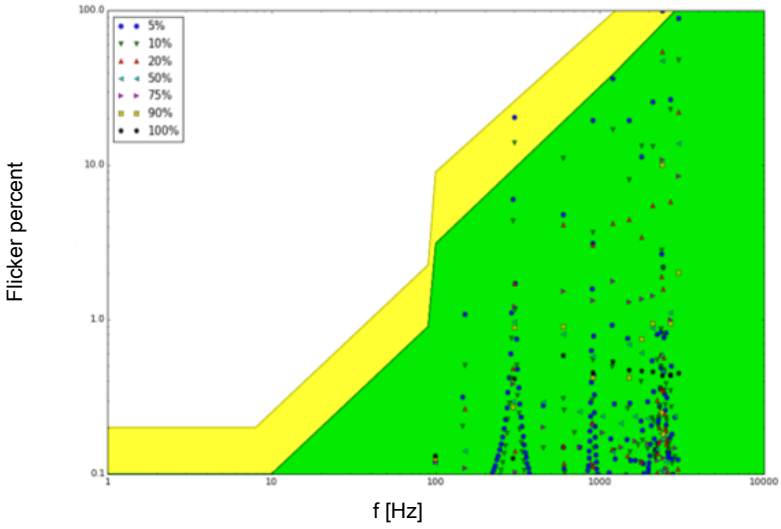
Typical efficiency vs load

Tested with a load of 24 LEDs in series, programmed for 8000mA and at 25 ºC ambient temperature. The measurements below 192W were performed by dimming the light output.



Typical flicker performance

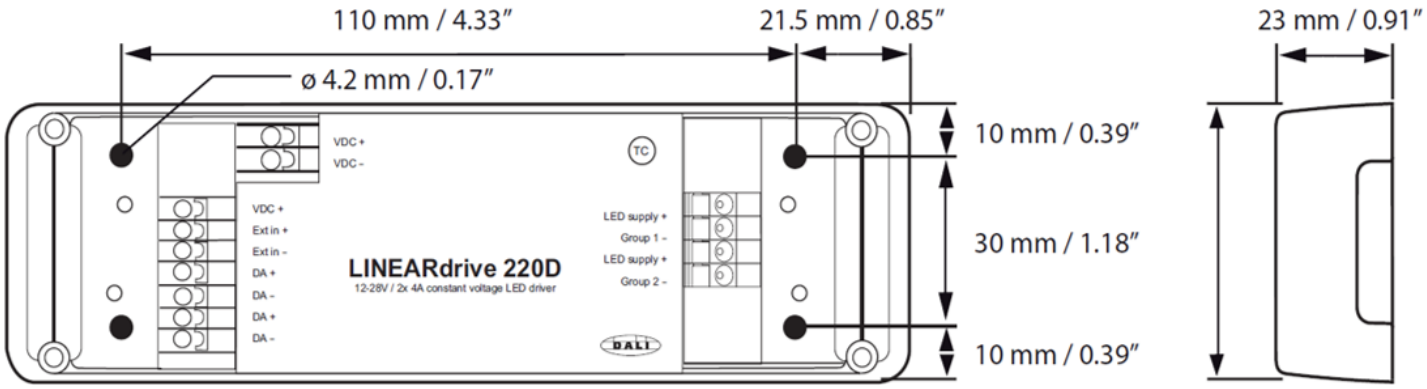
Typical flicker percent as a function of frequency, measured across the dimming range. The results are overlaid with the low-risk (yellow) and no observable effect (green) levels as defined in IEEE P1789.



Environmental conditions

Operating ambient temperature (Ta) range	-20 ºC to +50 ºC
Maximum operating case temperature (Tc max)	78 ºC

LED driver mechanical details



Length (L)	typical: 153 mm / 6.03 in
Width (W)	typical: 50 mm / 1.96 in
Height (H)	typical: 23 mm / 0.91 in
Mounting hole diameter (d)	4.2 mm / 0.17 in
Center to center mounting hole distance (L1)	110 mm / 4.33 in
Center to center mounting hole distance (L2)	30 mm / 1.18 in
Weight	149 g
Mounting screw	M4

Packaging

Length x Width x Height	170 x 110 x 156 mm / 6.69 x 4.33 x 6.14 in
Weight	2 kg
Products per box	12 pcs

Connector layout

Wiring specifications

Wire core cross section	0.2 - 1.5 mm² AWG 24 – 16
Wire strip length	9.0 mm / 0.35 inch

Standards and compliance

UL, recognized component	UL 1310 UL 8750 (Class 2 output)
ENEC safety	EN 61347-1 EN 61347-2-13 (Emergency lighting)
Conducted emissions	EN 55015, Class B
Radiated emissions	EN 55015, Class B
Electrostatic discharge	EN 61000-4-2
Restriction of hazardous substances	RoHS2
SVHC-list substances	REACH Art.33

Certifications

E333135

Qualified mains power supplies

Performance	EMC requirements may not be guaranteed on system level. The location, wiring and grounding of the switching power supply in the system may influence its EMC characteristics. In different environments or applications, the same switching power supply may have different outcomes. Our test results are based on the setup shown in the EMC report. Full load performance is guaranteed with maximum cable-length of 2 meter for supply cable (2 x 2.08mm^2) as well as for load cable (4 x 1.5mm^2)
Compatibility	The following mains power supplies are already tested by eldoLED and are compatible with this eldoLED driver:

Voltage rating	Manufacturer	Article number
24V	Meanwell	HLG-240H-24A
12V	Meanwell	HLG-240H-12A

Safety

	Risk of electrical shock. May result in serious injury or death. Disconnect power before servicing or installing.
	The LED driver may only be connected and installed by a qualified electrician. All applicable regulations, legislation, and building codes must be observed. Incorrect installation of the LED driver can cause irreparable damage to the LED driver and the connected LEDs. Pay attention when connecting the LEDs: polarity reversal results in no light output and often damages the LEDs.
	LED drivers are designed and intended to operate LED loads only. Powering non-LED loads may push the LED driver outside its specified design limits and is, therefore, not covered by any warranty.
	eldoLED products are designed to meet the performance specifications as outlined at certain operating conditions in the data sheet. It is the responsibility of the fixture manufacturer to test and validate the design and operation of the system under expected and potential use cases, including faults.
	Please observe voltage drop over long cable lengths. Longer cable lengths increase EMI susceptibility.
	Product renderings and dimensional drawings are generic for the housing type. Product label, connector type and quantity may vary.

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