



**Colour
is our nature**

4x2A DMX/DALI Full-Colour Dimmable LED Driver

LINEARdrive

LINEARdrive gives you infinite colour control for low-voltage LED applications ranging from single colour for accent and cove lighting all the way up to RGBW for full colour entertainment product solutions. This constant voltage LED driver is DMX/DALI compatible and allows you to create your colour or dynamic show without an external controller. Symbiosis ensures the LED driver works seamlessly together with LED modules, controls and intelligent luminaire elements.

Product offering



LINEARdrive100/A

| | |
|---------------------|---|
| Part number (P/N) | LIN100A1 |
| Product description | LINEARdrive, 100W, DMX/DALI , 4 control channels, constant voltage, 4x 12/24V outputs, long metal / plastic |

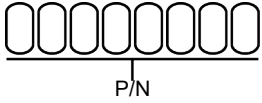
Programming tools

| | |
|---------------------------------|---|
| Programming interface | TOOLbox pro (TLU20504) |
| Programming cable set | TOOLbox pro to LED driver, programming cable, 5pcs (TLC03051) |
| Programming software | FluxTool |
| Programming via product display | The parameters can be set via the display on the driver. For instructions, please see the Menu Structure Quick Start Guide. |

Warranty

| | |
|-----------------|--|
| Warranty period | General Terms and Conditions |
|-----------------|--|

Order number configurator



| | |
|-----|------------------------|
| P/N | LED driver part number |
|-----|------------------------|

Input characteristics

| | |
|--------------------------------|------------------------------------|
| Nominal input voltage range AC | 120 - 250V (ENEC), 120 - 277V (UL) |
| Nominal input voltage DC | 120 - 275V |
| Maximum input current AC | 1.05A @ 120V |
| Input frequency range | 50 - 60Hz |
| Power factor at full load | > 0.94 |
| THD at full load | < 10% |
| Maximum inrush current AC | 35A 240µs @ 120V |
| Surge protection | 3kV (L to N) 4kV (L/N to GND) |
| Maximum standby power | < 0.5W |

Output characteristics

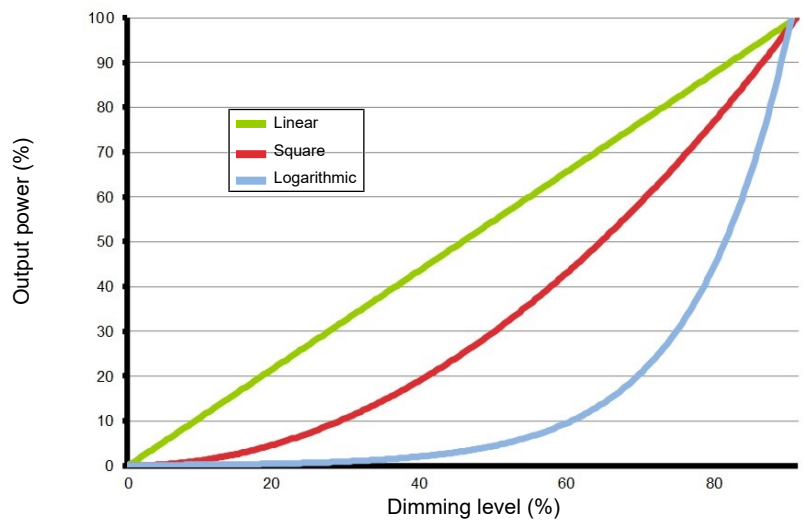
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|--------------------------|---|
| LED output load | <p> RGBW @ 12V: 2.08A RGB @ 12V: 2.76A RGBW @ 24V: 1A RGB @ 24V: 1.33A </p> <p>5A maximum common anode</p> <p>For UL Class 2:</p> <p> RGBW @ 12V: 1.25A per output RGB @ 12V: 1.66A per output RGBW @ 24V: 1A per output RGB @ 24V: 1.33A per output </p> |
| Maximum LED output power | 100W |
| Number of LED outputs | 4 (UL Class 2) |
| LED output current | 2.8A absolute maximum rating per output |
| LED output voltage | 12 - 24V DC |
| 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. |

Control characteristics

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|------------------|---------|
| Control channels | 4 |
| Control protocol | DMX/RDM |

| | |
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| Dimming range | 100% - 0.1% |
| Dimming curve options | Logarithmic (default) Linear Square |
| Dimming method | HydraDrive |
| Driver configuration | Via 3-button user interface on driver Remark: ignore dimming curve setting in DALI mode |

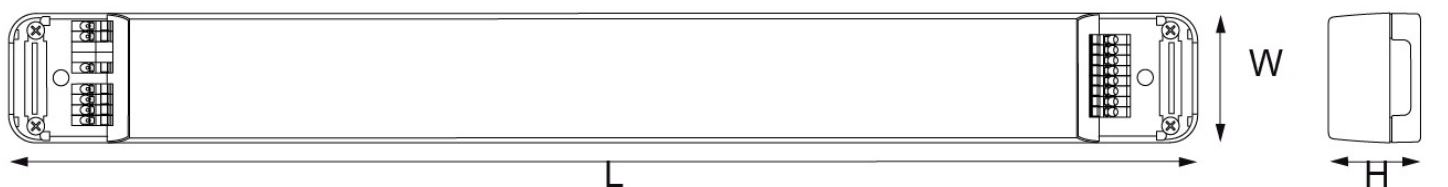
Dimming curves



Environmental conditions

| | |
|---|------------------|
| Operating ambient temperature (Ta) range | -40 °C to +50 °C |
| Maximum operating case temperature (Tc max) | 90 °C |

LED driver mechanical details



| | |
|------------|----------------------------|
| Length (L) | typical: 388 mm / 15.27 in |
| Width (W) | typical: 42 mm / 1.65 in |
| Height (H) | typical: 30 mm / 1.18 in |
| Weight | 705 g |

Packaging

Products per box 20 pcs

Connector layout



Wiring specifications

Wire core cross section 0.5 - 1.5 mm²
AWG 20 – 16

Wire strip length 9.0 mm / 0.35 inch

Automatic circuit breakers (MCB)

| Maximum loading | MCB type | B10 | B13 | B16 | C10 | C13 | C16 |
|-----------------|----------|-----------------------|-----|-----|-----|-----|-----|
| | | Number of LED drivers | 5 | 6 | 8 | 8 | 10 |

Standards and compliance

| | |
|-------------------------------------|--|
| UL, recognized component | UL 1310 UL 8750 (Class 2 output) |
| ENEC safety | EN 61347-1 EN 61347-2-13 (Emergency lighting) |
| ENEC performance | EN 62384 |
| Conducted emissions | EN 55015 |
| Radiated emissions | EN 55015 |
| Radio disturbance characteristics | EN 55022 |
| Harmonic current emissions | EN 61000-3-2 |
| Electromagnetic immunity | EN 61547 |
| DALI | EN 62386-101/102/207 |
| DMX | E1.11 – 2008, USITT DMX512-A ANSI E1.20 |
| RCM | AS/NZS 61347.1, AS/NZS 61347.2.13 |
| Restriction of hazardous substances | RoHS3 (Directives 2011/65/EU-2015/863/EU) |

Certifications



RCM independent control gear classification

| | | |
|--|---|-----------------|
| Regulation AS/NZS 60598.2.2 | Applies when the control gear is built inside constructions | |
| Clearance type | Description | Distance |
| Height clearance to building element (HCB) | Minimum distance between the top of the control gear and any building element above it | 50 mm |
| Minimum insulation clearance (MIC) | Minimum distance between the top of the control gear and the building insulation above it | 50 mm |
| Side clearance to building element (SCB) | Minimum distance between the side of the control gear and any building element | 50 mm |

| | | |
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| Side clearance to insulation (SCI) | Minimum distance between the side of the control gear and any building insulation | 50 mm |
|------------------------------------|---|-------|

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| RISK OF FIRE | BUILDING INSULATION MUST NOT COVER THE CONTROL GEAR |
|--------------|---|

Safety



An independent control gear that can be used where normally flammable materials, including building insulation, are or may be present, but cannot be abutted against any material and cannot be covered in normal use.



FELV control terminals marked “Risk of electric shock” are not safe to touch. Dimming connected to FELV control terminal shall be insulated for Low Voltage supply of the control gear. Any terminals connected to the FELV circuit shall be protected against accidental contact.



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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