

Colour
is our nature

Highly Integrated 50 Watt LED Driver/Controller

LM Series

The LM Series products are highly integrated driver/controllers for high-power LED lighting applications.

The LM Series driver/controllers can be used in a network or as standalone devices. ShowMaster, supported on all eldoLED driver/controllers, allows you to upload show sequences for use in standalone mode. Create and manage your own show sequences using the TOOLbox and freely available PC software.

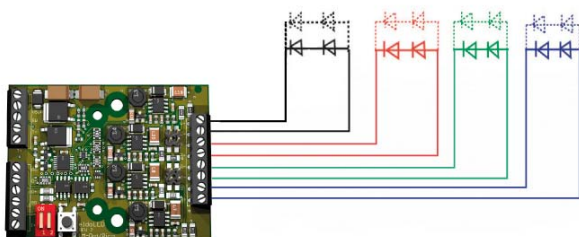
Having multiple LED current sources, the LM Series driver/controllers cater to the needs of SSL applications demanding a very high power output. They are DMX- and LedSync-compatible, allowing 15-bit dimming and colour control and bidirectional communication for driver configuration and temperature read-out.

LM-Dot Pico

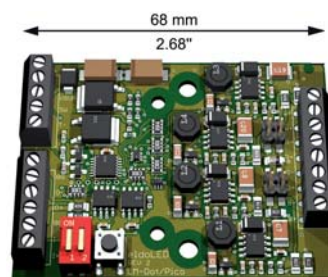
The LM-Dot Pico is the ideal choice for powering 350mA - 700mA, high-brightness LEDs and is available in a 3- and 4-channel version. Thanks to LedSync Out, the LM-Dot Pico allows daisy-chaining of SSL fixtures and can broadcast running show sequences to all connected LM Series devices.

High power output

The LM-Dot Pico allows a power output of up to 50W. Also, the LED current can be set for each group individually, providing you with all the flexibility you need to drive your LEDs.



Example of an LED group wiring schematic



High control resolution

The LM-Dot Pico supports a 15-bit control resolution per output channel for accurate dimming and fine colour mixing.

Low EMI

Slew-rate controlled dimming and shielded conductors keep the driver's EMI emissions at a very low level.

Robust thermal management

The LM Series driver/controllers have a robust thermal management. A built-in over temperature protection shuts down the driver/controller if it threatens to overheat. Furthermore, an NTC interface enables various ways of thermal protection, including LED throttling, a graceful decrease of light output until normal operating temperatures are reached.

Features

- USITT DMX512A- and LedSync-compatible
- Break-through form factor: 68x50x14mm / 2.68x1.97x0.55"
- Power output of up to 50W
- Operating supply voltage range: 24V-32V DC
- NTC interface and built-in over temperature protection

Advantages

- Accurate, smooth dimming and high-res colour mixing
- Drive, control and thermal protection per fixture
- Easy network setup
- Low EMI
- Screw terminals allowing easy connection of leads

Electrical data

- LED current settings: 350mA/700mA. Can be set to a different value for each group by way of a jumper.
- Operating supply voltage range: 24V-32V DC
- Power output range: 0-50W
- LED current sources: 3 or 4, depending on driver version
- Reverse polarity protection
- Processor: eldoLED FluxLogic 2400 Series
- Independent LED groups: 3 or 4, depending on driver version

Dynamic effects

- Hydra Drive Algorithm Based Modulation
- Control of channel 1 (R), 2 (G), 3 (B) and 4 (W/A): 0 - 100% in 15-bit set point resolution
- Contrast ratio: up to 8,000:1

Thermal data

- Passive cooling: heat sink mounting. Heat sink for driver only must be able to dissipate 10% of power consumed by LED engine. E.g. If LEDs consume 50W, driver requires a 5W heat sink.
- Built-in protection against overheating
- NTC interface: for connection of negative temperature coefficient (NTC). NTC enables temperature read-out of driver or LED engine and can be used for thermal throttling function

Network control

- Network input: USITT DMX512A or LedSync
- Network output: LedSync
- Network input/output: based on RS485 specification
- Input signal update rate: 8ms
- Network resolution: 8 or 16 bit, set at factory or with TOOLbox and PC software
- Network channels used by driver in 8-bit resolution: 3 or 4
- Network channels used by driver in 16-bit resolution: 6 or 8
- Communication: bidirectional for driver configuration and temperature readout
- Start address configuration: manually with TOOLbox and PC software or auto-addressing if daisy-chained (LedSync only)

ShowMaster

- Nine standard shows or up to 20 customer-defined shows set at factory.
- User-defined shows (ShowMaster): up to 20 shows, via TOOLbox and PC software.
- Show selection: via TOOLbox and PC software or via external/remote or onboard switch

Connections

- Power: screw terminals (2)
- Data: screw terminals (6)
- NTC: screw terminals (2)
- External switch: screw terminals (2)
- LED groups: screw terminals (8)

Environmental ratings

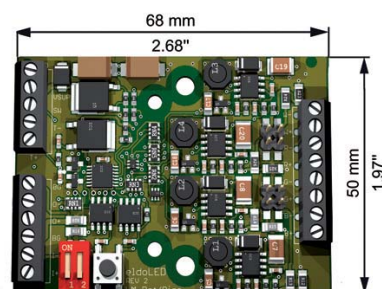
- Maximum ambient temperature: 60°C (140°F)
- Minimum ambient temperature: 0°C (32°F)
- Storage ambient temperature: -40°C to 95°C (-40°F to 203°F)
- Relative humidity: non-condensing

Mounting data

- Mounting orientation: any
- Mounting holes: for M3 screw (2) and M4 screw (2)
- Mounting kit: DIN rail mounting

Dimensions

- LxWxH: 68mm x 50mm x 14mm
2.68" x 1.97" x 0.55"

**Ordering information**

Description	Product	Order nr
LM-Dot Pico 3 Channel 40W	LM-Dot/P 3045	LMP30451
LM-Dot Pico 4 Channel 50W	LM-Dot/P 4055	LMP40551
DIN rail clip with alu spacer (optional)	DIN rail clip	DRC10101