

Colour
is our nature

Integrated Network Dimmer

DimWheel Series

The DimWheel Series products are powerful one-button DMX controllers for LED drivers and luminaires.

Intuitive operation: one-button on/off, dimming and colour control

Operating the DimWheel is as intuitive as operating a standard household dimmer. Pressing the rotary encoder switches the light on or off, turning the encoder while the light is on adjusts the brightness. Pressing and holding down the encoder shortly enters the colour selection mode - subsequently turning the encoder selects the hue, and pressing and turning it once more sets the saturation level. Pressing the encoder one final time saves the selected colour. Turn the encoder fast to make big steps, turn it slowly for bit-by-bit control of brightness, hue or saturation.

High control resolution

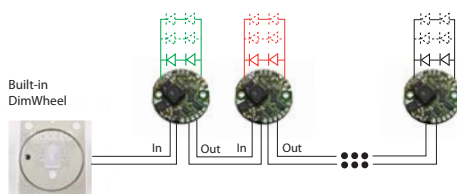
15-bit resolution guarantees smooth brightness control and extremely fine colour mixing, making the DimWheel the perfect digital LED dimmer. The DimWheel also offers total dimming control from 100% down to 0.5%.

Onboard LED

An LED on the DimWheel's PCB gives you local visual feedback on the actual dimming level and colour selection.

Network control

The DimWheel uses a DMX/LedSync-compatible output interface to control eldoLED and other standard DMX devices with either an 8-bit or 16-bit network resolution. The network resolution is configurable by way of a DIP switch. The 16-bit network resolution, which is supported by the LedSync protocol, allows extremely smooth dimming and fine colour mixing.



Example of a DimWheel wiring schematic

Easy installation

The DimWheel's small footprint of 40mm by 48mm or 1.57" by 1.89" allows integration in any industry-standard mounting space used for traditional lighting dimmers.

The screw terminals and threaded encoder guarantee easy connection and easy mounting, making the installation process of the DimWheel a breeze.

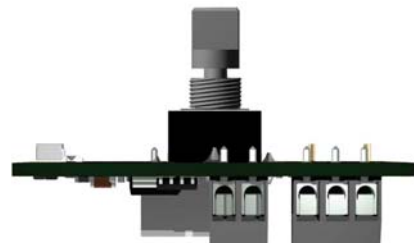


Features

- On/off switch integrated in encoder
- Operating supply voltage range: 12V-32V DC
- USITT DMX512A- and LedSync-compatible
- 8- or 16-bit network resolution
- Onboard LED for local visual feedback
- Colour, on/off state and dimming level are saved to memory when light is switched off or a power glitch occurs

Advantages

- Accurate/complete solution for LED lighting colour, dimming and on/off control
- Can be mounted and used like standard household dimmers
- Low EMI
- Simplifies total system solution
- Easy network setup



Screw terminals and threaded encoder ensure easy mounting

Electrical data

- Operating supply voltage range: 12V-32V DC
- Processor: eldoLED DimLogic 4200 Series
- Reverse polarity protection

Dynamic effects

- Control channel 1-128: 0 - 100%
- Control channel 129-256: 0 or 100%

Thermal data

- Cooling: passive. No active cooling required.

Connections

- Power: screw terminals (2)
- Data: screw terminals (6)

Network control

- Network output: USITT DMX512A or LedSync, based on RS485 specification
- Output signal update rate: 13ms
- Number of network channels: 256
- Network resolution: 8- or 16-bit, configurable by way of DIP switch
- Communication: bi-directional for configuration or sensor value read-out

Operating modes

- On/off mode
- Dimming mode
- Colour selection mode

User interface

- Encoder type: detentless
- Encoder resolution: 20 steps in 360°
- Ballistic effect: yes

Environmental ratings

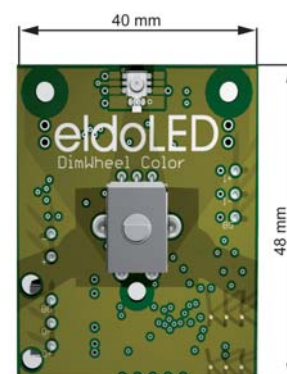
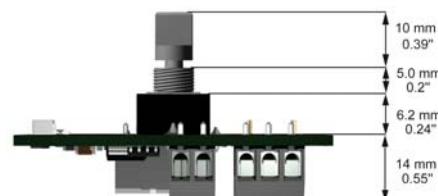
- Maximum ambient temperature: 60°C (140°F)
- Minimum ambient temperature: -20°C (-4°F)
- Storage ambient temperature: -40°C to 95°C (-40°F to 203°F)
- Relative humidity: non-condensing

Mounting data

- Mounting orientation: any
- Mounting holes: for M3 screws (3)
- Threaded encoder for easy mounting

Dimensions

- LxWxH: 48 mm x 40 mm x 21.2 mm
1.89" x 1.57" x 0.84"

**Ordering information**

Description	Product	Order nr
Dimmer 3 channel Colour (RGB) LedSync	DimWheel - C3	DLC30101
Dimmer 4 channel Colour (RGBW) LedSync	DimWheel - C4	DLC40101

For special form factors, connectors or other customized solutions, please contact us at OEMsales@eldoled.com.