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Colour
is our **nature**

DALI-to-DMX Bridge

eldoLED bridges

eldoLED network features are based on the LedSync protocol. All eldoLED products support LedSync and have built-in DMX compatibility. A number of bridges are offered that allow (1) the default LedSync/DMX universe to communicate with other network protocols such as DALI and 0-10V, or (2) networking over RF instead of wired solutions.

DALI-to-DMX bridge

The eldoLED DALI-to-DMX bridge translates up to 32 DALI ballast values into DMX signals. The bridge is ideally suited to extend existing DALI lighting installations with a DMX universe, combining the best of both worlds in one hybrid network consisting of DALI and DMX luminaires.

The bridge's input side is completely DALI-compatible, meaning you can use all popular DALI control devices and commissioning tools to control and configure groups and scenes in DALI the way you are used to.
The advantages of the DMX output side of the DALI-to-DMX bridge include the possibility of c hoosing the network resolution and using the same DMX address for multiple luminaires. The DALI-to-DMX bridge autoconfigures the number of DMX channels to the number of configured DALI ballasts.

Configuring network resolution on DMX side

DMX network resolution (number of bits used to send a set point over the network) can be set to either 8 or 16 bit via the bridge's DIP switch. In 8-bit mode, every DALI ballast value is translated into one 8-bit DMX channel. In 16-bit mode, two DMX channels are used per DALI ballast value. 16-bit mode enables a 15-bit resolution fade, resulting in a smooth transition between set points, invisible to the human eye.

Broadcast mode for daisy-chaining

The bridge broadcasts and replicates the DALI ballast settings over a maximum of 256 DMX channels with a 16ms update rate. The broadcast mode and set point replication gives you the advantage of daisy-chaining and auto-addressing luminaires, which is especially useful when networking over long cable distances.

68 mm
2.68"
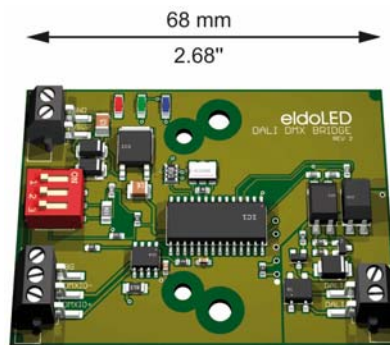
The DALI-to-DMX bridge

Allocating a start address to multiple luminaires

Grouping luminaires with exactly the same behavior is easy in DMX. All it takes is setting those luminaires to the same DMX start address. In short, combining the advantages of DALI and DMX allows you to build a far larger yet easy-to-control network.

Form factor

The DALI-to-DMX bridge measures 68mm by 50mm or 2.68" by 1.97". DIN rail clip and backing plate are available for easy installation in standard electric boxes.

Features
- Conversion of 32 DALI ballasts into DMX512-compatible signals
- Broadcast and replication mode
- Operating supply voltage range: 12V - 32V DC
- DMX network resolution configurable by way of DIP switch

Advantages
- Enables hybrid DALI-DMX network
- Allows daisy-chaining /auto-addressing of luminaires
- Smooth transition between set points
- Easy connection of power, DALI and DMX
- Easy setup and installation

Electrical data
- Operating supply voltage range: 12V - 32V DC IN
- Processor: eldoLED BridgeLogic 600
- Reverse polarity protection: yes
- Galvanically isolated from DALI

Connections
- Power: screw terminals (2)
- DALI IN: screw terminals (2)
- DMX OUT: screw terminals (3)

Dynamic effects
- DMX control channels: 0 - 100%

Environmental ratings
- T_a range:

  0°C to 60°C (32°F to 140°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 (2) and M4 screws (2)

Network control
- Network input: DALI
- Network output: USITT DMX512A-compatible, based on RS485 specification
- DALI network resolution: approximately 5 bit (3% increments)
- USITT DMX512A network resolution: 8 bit and 16 bit
- DALI ballasts used (8-bit): 1...32
- DMX channels used (8-bit): 1...32
- DMX channels used (16-bit): 2...64

Thermal data
- Cooling: passive

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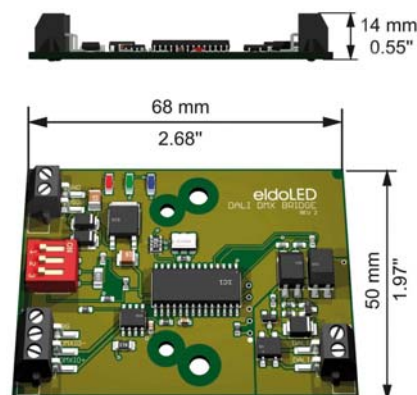
Ordering information

Description	Order nr
DALI-to-DMX Bridge	BDD10101