

# DALI Bridge

## DALI Bridge Module

Date: \_\_\_\_\_

Quantity: \_\_\_\_\_

Company: \_\_\_\_\_

Project: \_\_\_\_\_



The **DALI Bridge** is a key device in enabling the Encelium X Lighting Control System to address DALI LED drivers via the GreenBus communication bus from the Wired Manager – GreenBus.

A Wired Manager – GreenBus consists of 8-Channels that can inherently communicate using the DALI protocol that is inherently Class 1 based. To enable the interface with the Class 2 GreenBus channel, the DALI Bridge is used to provide the appropriate electrical isolation.

Most jurisdictions allow running the DALI bus as a Class 1 circuit, together with line power supplying the DALI LED drivers (consult applicable local electrical and building codes). It uses DIN Rail housing and requires an external power supply.

The 203 x 203 mm (8 x 8 inches) DALI Junction Box with DIN Rail allows for mounting of 1 DALI Power Supply and 1 DALI Bridge.

### Works with

- Encelium X
  - ▶ GreenBus Wired



### Key Features & Benefits

- Enables DALI (Digital Addressable Lighting Interface) network-based lighting products in the Encelium X Lighting Control System
- Adjusting light levels to respond to variable lighting requirements
- Scheduling luminaire operation to lower energy use during off-peak occupancy
- Customizing lighting scenes for tailored experiences/tasks
- Adjusting luminaire group assignments for adjusted space layouts
- Monitor ballast failures to predict maintenance
- Simple DIN Rail mounting

# Specifications

## SENSING AND CONTROL

### Control

- GreenBus Communication

### Control Options

- Compatible with DALI-compliant LED Drivers
- 64 DALI LED Drivers per DALI Bridge
- 512 DALI LED Drivers per Wired Manager – GreenBus

## ELECTRICAL

### External Power Supply

- Requires dedicated power supply<sup>1</sup>
- 100 to 240 VAC, 50/60 Hz, 1.8A (hardwire connection)

### DALI Output

- 24V, 250 mA maximum

### Connections

- Purple: GreenBus In/Out
- Purple: GreenBus In/Out
- 24 VDC Input
- DALI Control

## ENVIRONMENTAL

### Operating Temperature

- 0° to 50°C (32° to 122°F)

## PHYSICAL

### Dimensions (H x W x D)

- 61 x 89.92 x 17.53 mm (2.4 x 3.5 x 0.7 inches)

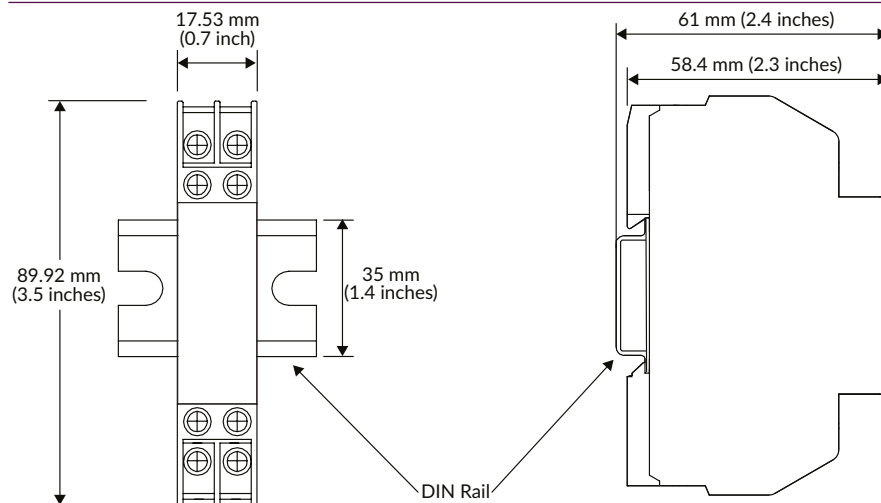
### Weight

- 77 g (2.7 oz)

### Housing Color

- Almond

## Dimensions



### Footnotes:

<sup>1</sup> Powered by external power supply (Catalog Number: 6EP1331-1SH03).

<sup>2</sup> This does not apply to: (1) damage caused by accident, mishandling, or dropping; (2) materials which have been subject to unauthorized repair; (3) materials not used in accordance with instructions; (4) ordinary wear and tear.

<sup>3</sup> Install in accordance with all applicable national and local electrical and building codes.

## Housing Material

- Plastic

## Mounting Option

- DIN Rail Mount

## Wire Gauges

- 18 AWG (GreenBus)
- 24 VDC (As per Supply Specification)
- DALI (As per DALI Specification)

## WARRANTY

- Standard warranty is in effect for a period of five (5) years from the date of shipment.<sup>2</sup>

## CERTIFICATIONS & SAFETY

### Approbations

- UL Listed
- FCC Part 15/ICES-003, Class A
- CSA

### Environmental Suitability

- Dry, Indoor Locations Only<sup>3</sup>

### Complies with Electromagnetic Compatibility

#### (EMC) Standards:

- EN 61000-4-2
- EN 61000-4-4
- EN 61000-4-5



GreenBus™

# DALI Power Supply Specifications

## ELECTRICAL

### Power Supply Input

- 100 to 240 VAC, 50/60 Hz, 0.7A @ 120V / 0.35A @ 230V

### Power Supply Output

- 24V, 1.3A

## ENVIRONMENTAL

### Operating Temperature

- 20° to 70°C (68° to 158°F)

## PHYSICAL

### Dimensions (H x W x D)

- 57.5 x 90 x 54 mm (2.3 x 3.5 x 2.12 inches)

### Weight

- 0.17 kg (6 oz)

### Housing Color

- Gray

### Housing Material

- Plastic

### Mounting Option

- DIN Rail Mount

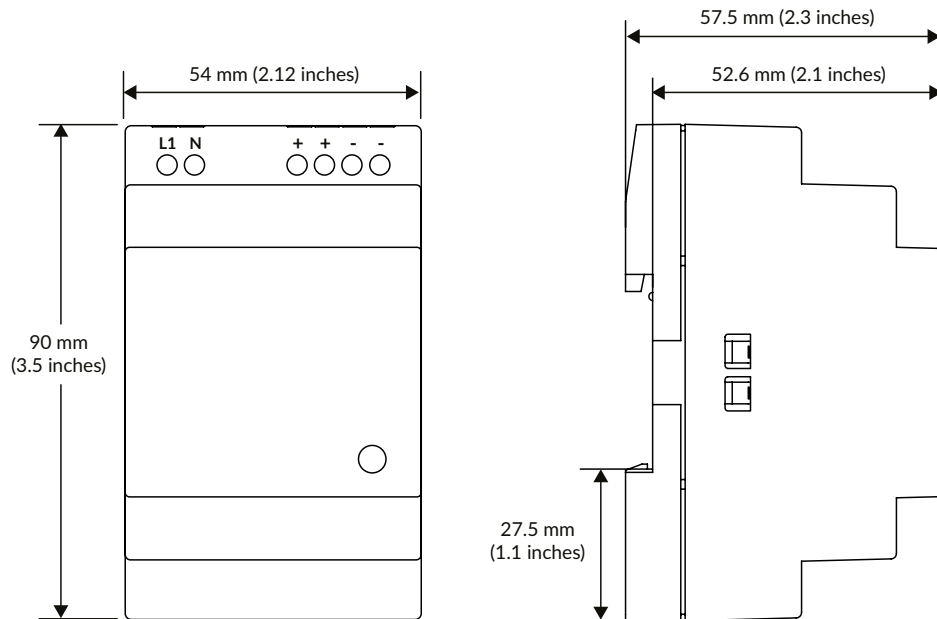
## CERTIFICATIONS & SAFETY

### Approbations

- cUL/UL Listed
- CE
- CSA
- NEC Class 2



## Dimensions



# DALI Junction Box Specifications

## ELECTRICAL

### External Power Supply

- Requires dedicated power supply<sup>1</sup>
- 100 to 240 VAC, 50/60 Hz, 1.8A (hardwire connection)

### DALI Output

- 24V, 250 mA maximum

## ENVIRONMENTAL

### Operating Temperature

- 0° to 50°C (32° to 122°F)

## PHYSICAL

### Dimensions (H x W x D)

- 203.2 x 203.2 x 102 mm (8 x 8 x 4 inches)

### Weight

- 2.27 kg (80 oz)

### Housing Color

- Gray

### Housing Material

- Metal

## Mounting Option

- Wall Mount

## WARRANTY

- Standard warranty is in effect for a period of five (5) years from the date of shipment.<sup>1</sup>

## CERTIFICATIONS & SAFETY

### Approbations

- UL Listed
- FCC Part 15/ICES-003, Class A
- CSA
- RoHS

### Environmental Suitability

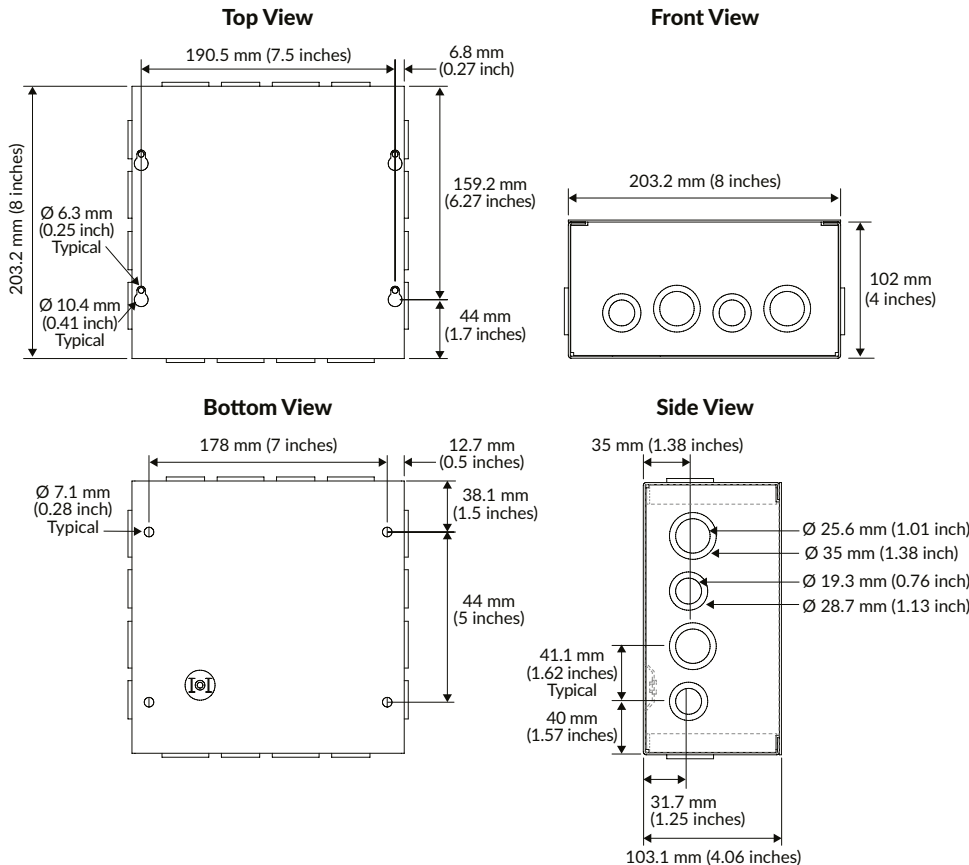
- Dry, Indoor Locations Only

### Complies with Electromagnetic Compatibility (EMC) Standards:

- EN 61000-4-2
- EN 61000-4-4
- EN 61000-4-5



## Dimensions



### Footnotes:

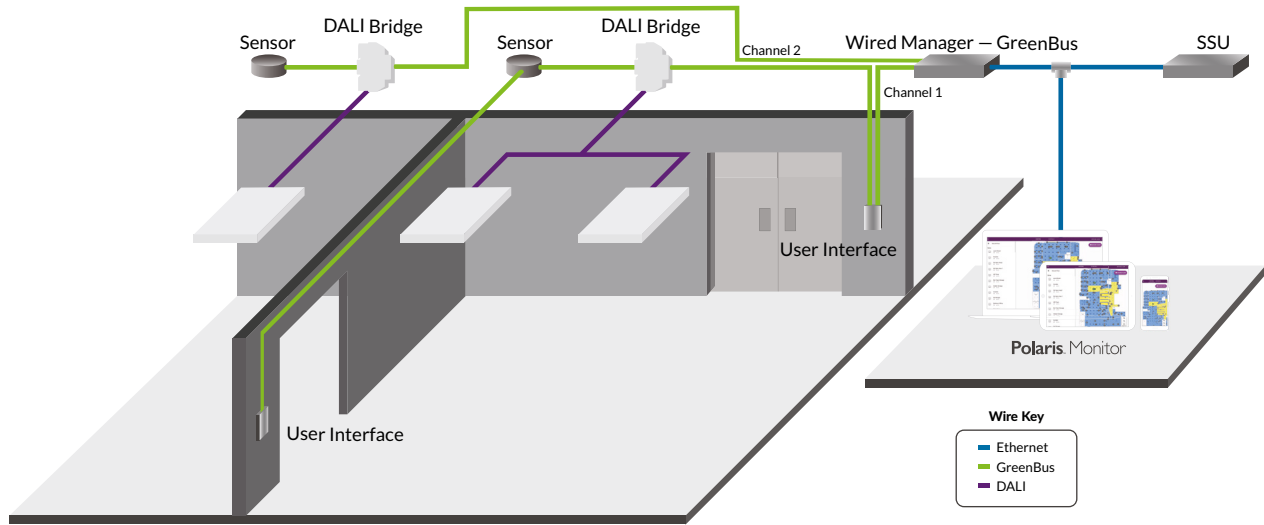
<sup>1</sup> This does not apply to: (1) damage caused by accident, mishandling, or dropping; (2) materials which have been subject to unauthorized repair; (3) materials not used in accordance with instructions; (4) ordinary wear and tear.

## Ordering Information

Catalog Number	Description	Approbations	Communication Network
EN-DB-1L-GB2	DALI Bridge	UL	GreenBus, DALI
6EP1331-1SH03	DALI Power Supply	UL and CE	—
EN-DALI-JBOX-01	203 x 203 x 102 mm (8 x 8 x 4 inches) Enclosure with DIN Rail	UL	—

## Wired System Overview

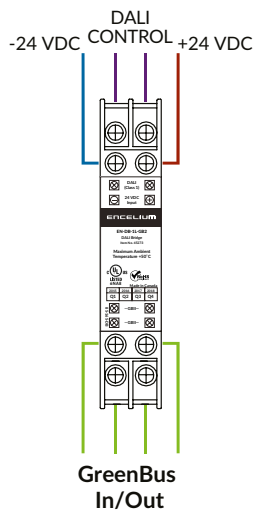
GreenBus technology makes wiring fast and error-free, since it's intuitive to install. With Encelium X, you can control DALI devices exclusively or a mixture of GreenBus and DALI. With any Encelium wired design, you get a reliable, on-site lighting control system that can be installed quickly and easily.



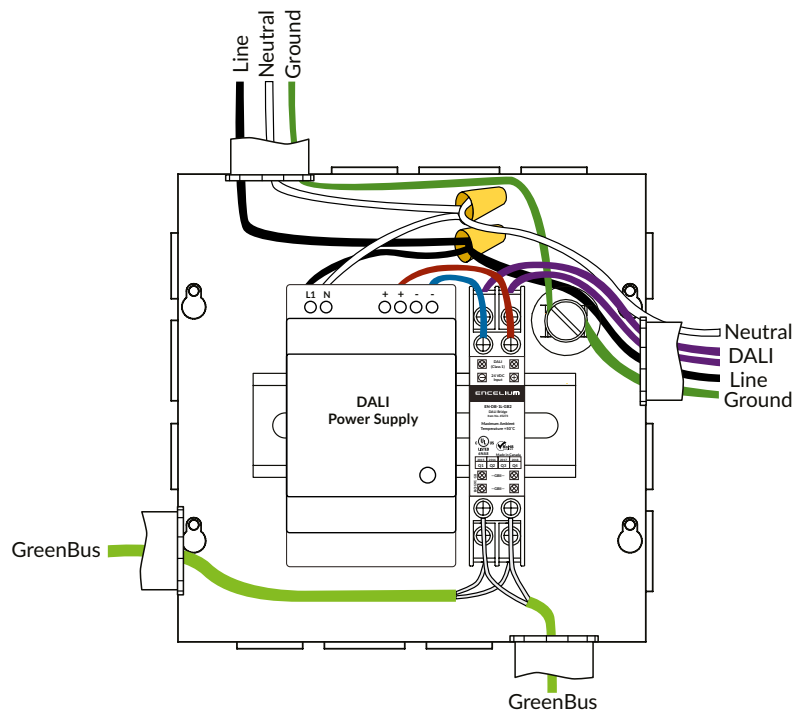
## Wiring Diagrams

### DALI Bridge Wiring

#### Control & Power Wires



### DALI Junction Box Wiring



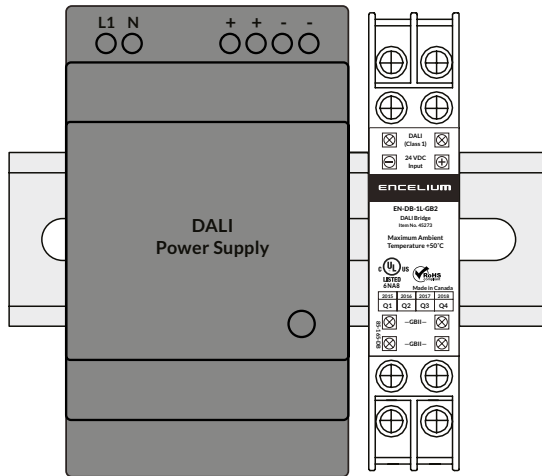
## Mounting Options

The DALI Bridge must be connected to the DALI Power Supply (24 V). It is recommended to use the power supply (Catalog Number: 6EP1331-1SH03) available from Encelium. This power supply is capable of powering up to 4 DALI Bridge modules.

In a typical installation, the DALI Bridge is mounted onto a standard DIN Rail. The DALI Bridge may be mounted to the same DIN Rail as the DALI Power Supply. The DALI Bridge has 8 Screw Terminals (2 GB, DC Input, DALI Output).

The DALI Bridge can also be wall mounted within a 203 x 203 x 102 mm (8 x 8 x 4) DALI Junction Box. The DALI Junction Box mounts 1 DALI Power Supply and 1 DALI Bridge. For the installation of additional DALI Bridges see installation instructions for details.

### DIN Rail Mount



### Wall Mount

