# DALI Bridge

## DALI Bridge Module

Date: _____
Quantity: _____
Company: _____
Project: _____

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

A wired manager 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 drivers (consult applicable local electrical and building codes).

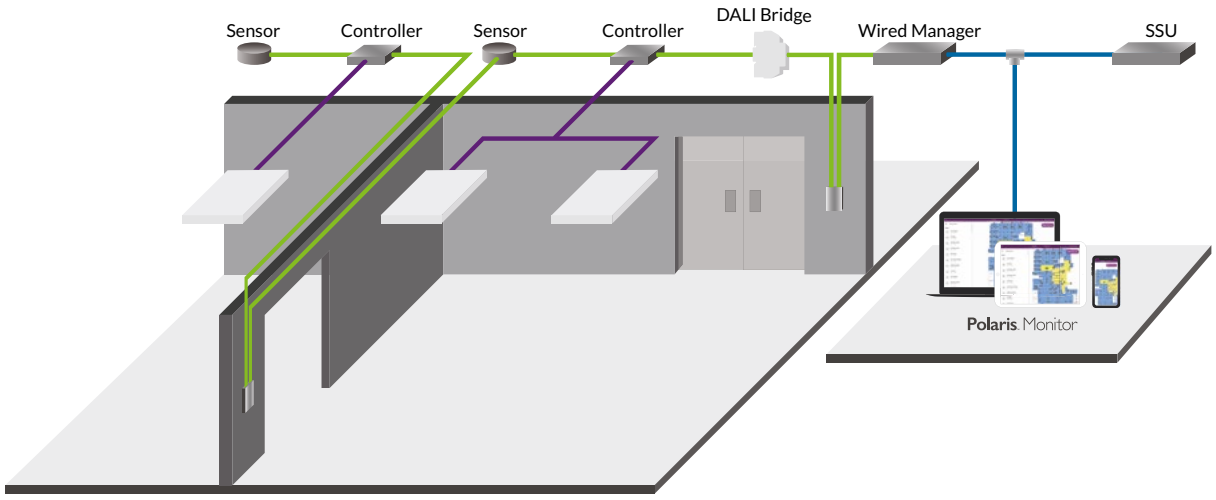
### Key Features & Benefits

- Enables DALI (Digital Addressable Lighting Interface) network-based lighting products in the Encelium X 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

ENCELIUM

## Wired System Overview

Our innovative GreenBus two-wire communication topology takes the work out of wiring, providing a simple solution for supplying power and data to Encelium X. 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 light management system that can be installed quickly and easily.




## Specifications

### SENSING AND CONTROL

**Maximum Number of Drivers**

- 64 DALI LED Drivers per DALI Bridge
- 512 DALI LED Drivers per Wired Manager

**Control Compatibilities**

- Compatible with DALI-compliant LED Drivers

### ELECTRICAL

**External Power Supply**

- Requires dedicated power supply[2]
- 100 — 240 VAC, 50/60 Hz, 1.8A (hardwire connection)

**DALI Output**

- 24V, 250 mA maximum

### ENVIRONMENTAL

**Operating Temperature**

- 32° — 122°F (0° — 50°C)

### PHYSICAL

**Dimensions (H x W x L)**

- 2.4 x 0.69 x 3.54 inch (60.96 x 17.53 x 89.92 mm)

**Weight**

- 0.17 lb (77 g)

### WARRANTY

For warranty details, refer to the full warranty documentation at www.encelium.com

### CERTIFICATIONS & SAFETY

**Approbations**

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

**Environmental Suitability**

- Dry, Indoor Locations Only[1]

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

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

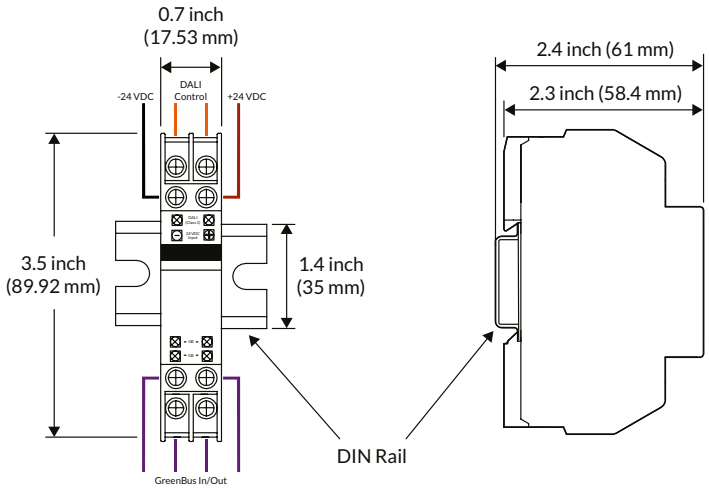
Footnotes:

[1] Install in accordance with all applicable national and local electrical and building codes.
[2] Powered by external DC power supply (Item #45428).

## Ordering Information

| Item Number | Ordering Code | Description | Communication Network | Modifiers |
|---|---|---|---|---|
| 45273 | EN-DB-1L-GB2 | DALI Bridge | GreenBus | — |
| 45428 | 6EP13311SH03 | DALI Bridge Power Supply | — | — |

## Dimensions & Wiring




## Wiring Information

| Function | Wire Color | Wire Gauge |
|---|---|---|
| Encelium GreenBus In/Out | Violet | 18 AWG (GB) |
| Encelium GreenBus In/Out | Violet | 18 AWG (GB) |
| 24 VDC Input | — | As per Power Supply Specification |
| DALI Control | — | As per DALI Specification |

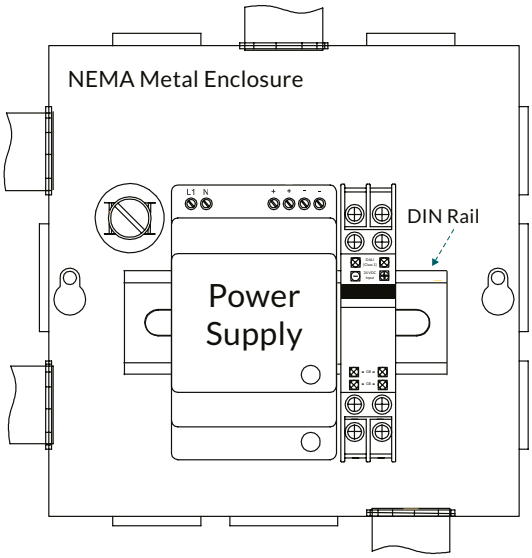
## Mounting Details

The Encelium DALI Bridge module must be connected to a 24 VDC power supply. It is recommended to use the power supply (Item # 45428) available from Encelium. This power supply is capable of powering up to 4 DALI Bridge modules.

In a typical installation, the DALI Bridge modules are mounted onto a 35X7.5mm or 35X15mm "Top-hat" style DIN rail. The DALI Bridge modules may be mounted to the same DIN rail as the 24 VDC power supply. The DALI Bridge has 8 Screw Terminals (2 GB, DC Input, DALI Output).

Following NEMA metal electrical box sizes are suggested:

- 1 Power Supply and 2 DALI Bridges:
  10 x 10 x 3 inch (254 x 254 x 76.2 mm)
- 1 Power Supply and 3 DALI Bridges:
  12 x 12 x 3 inch (305 x 305 x 76.2 mm)
- 1 Power Supply and 4 DALI Bridges:
  12 x 12 x 3 inch (305 x 305 x 76.2 mm)




NEMA metal enclosure is for illustration purposes and not provided with the product.

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