# **LCM** Wired Luminaire Control Module



The Wired Luminaire Control Module (LCM) is a 0-10V luminaire level load controller with an internal relay capable of switching AC loads. Similar to other GreenBus devices, the LCM receives power and communication from the Wired Manager. The device is configured to meet the lighting control strategies using Encelium X.

| Date:       |  |  |
|-------------|--|--|
| Quantity: _ |  |  |
| Company: _  |  |  |
| Project:    |  |  |

#### Works with

- Encelium X
  - GreenBus Wired

#### Key Features & Benefits

- Self-contained relay switches AC loads
- Single 0-10V dimming line capable of sinking 25mA
- Designed to mount in a standard PG-7 (0.5 inch) trade-size knockout in luminaires or junction box
- Adjusts light levels to respond to variable lighting requirements
- Enables scheduling luminaire group operation to lower energy use during off-peak occupancy
- Customizing lighting scenes for tailored experiences/tasks

# ENCELIUM

## **Specifications**

#### SENSING AND CONTROL

#### Control

GreenBus Communication

#### **Control Outputs**

 Single 0-10V dimming output (IEC 60929 Annex E). Capable of sinking 25mA (this is equivalent to 25 typical dimming ballasts/LED drivers)<sup>1</sup>

#### ELECTRICAL

#### Absolute Maximum Ratings<sup>2</sup>

- 4.5A, 120 to 480 VAC Ballast/LED Driver
- 4.5A, 120 to 480 VAC Resistive
- 4.5A, 120 to 480 VAC Tungsten
- 4.5A, 120 to 480 VAC General Purpose

#### Connections

- Black: Line In/Out, Relay Contact
- Black: Line In/Out, Relay Contact
- Purple: 0-10V +
- Pink: 0-10V -

#### **ENVIRONMENTAL**

#### **Operating Temperature**

-40° to 55°C (-40° to 131°F)

#### PHYSICAL

#### Dimensions (H x W x D)

25.6 x 60.7 x 30 mm (1 x 2.38 x 1.18 inches)

#### Weight

65 g (2.3 oz)

#### **Housing Color**

Black

#### Housing Material

ABS Plastic

#### **Mounting Options**

- Luminaire Mount
- Junction Box Mount (Standard PG-7 (0.5 inch) trade-size knockout)

#### Wire Gauges

- 305 mm (12 inches), Black Wires
- 914.4 mm (36 inches), Purple and Pink Wires

#### WARRANTY

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

#### **CERTIFICATIONS & SAFETY**

#### Approbations

- UL916 cUL US Listed (Energy Management Equipment)
- UL924 cUL US Listed (Emergency Lighting Equipment)
- UL2043 Plenum Rated
- FCC Part 15/ICES-003
- RoHS Compliant

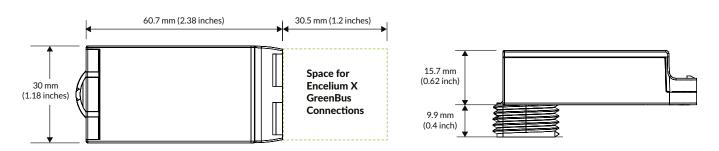
## Complies with Electromagnetic Compatibility (EMC) Standards:

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



## GreenBus

## Dimensions



Footnotes:

<sup>1</sup> Maximum wire length: 30 m (100 ft), Class 2 only.

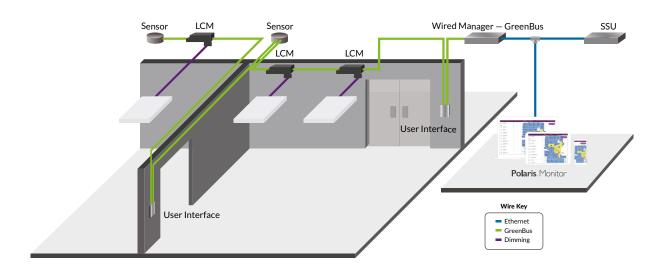
<sup>2</sup> Maximum of 2 luminaires.

## **Ordering Information**

| Catalog Number       | Description              | Approbation | <b>Communication Network</b> | Modifiers                        |
|----------------------|--------------------------|-------------|------------------------------|----------------------------------|
| EN-ILCM-1R10V-GB2-BK | Luminaire Control Module | UL          | GreenBus                     | Black Housing (BK)               |
| EN-LCM-1R10V-GB2BKDR | Luminaire Control Module | UL          | GreenBus                     | Black Housing/Damp Rated (BK/DR) |

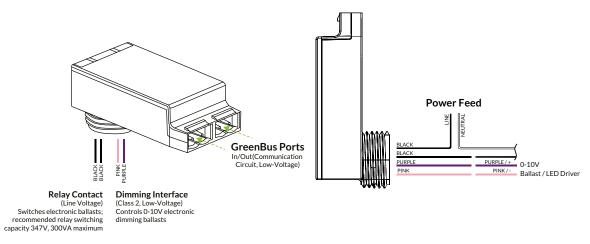
## Wired System Overview

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.



## **Wiring Diagrams**

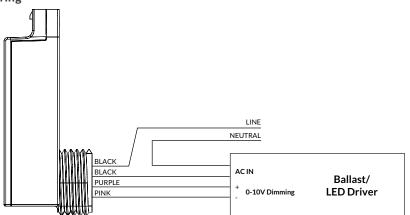
LCM Wiring



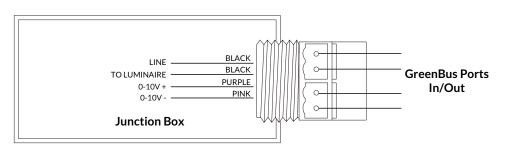
Control & Power Wires

## Wiring Diagrams (cont.)

**Dimmable Luminaire Wiring** 



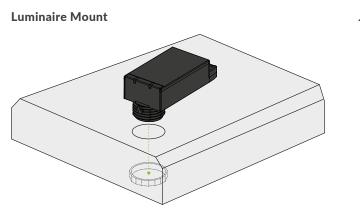
**Junction Box Wiring** 



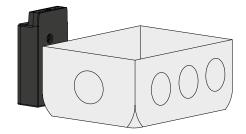
## **Mounting Options**

The mechanical construction allows for simple installation of the LCM to an available PG-7 (0.5 inch) trade-size knockout on the side or on top of a luminaire. GreenBus communication wiring is still accessible from the outside of the luminaire, while all necessary wiring to the electronic dimming ballast/LED driver is available on the inside.

For some installations, a junction box may be required. It is recommended to securely mount the LCM to the junction box using an available PG-7 (0.5 inch) trade-size knockout.

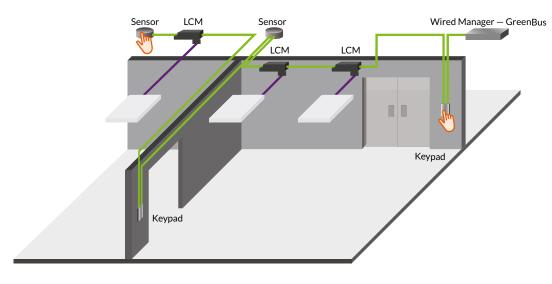


Junction Box Mount



### **Installation Testing**

Installer can quickly test if the devices have been wired correctly by pressing any button on the wallstation or the sensor which triggers all the load controllers on the channel to change the dimming level by 25%. Every press will trigger this function to enable testing of the AC line wiring, dimming wiring, and communication integrity over the GreenBus lines.



### **Manual Pairing**

Installers can easily pair devices in a room or a zone to gain manual control (on, off and dimming) and occupancy time outs. Holding any buttons on a wallstation or sensor for 10 seconds enters the system in the Manual Pairing mode. The system then guides the user by blinking the load controllers on the GreenBus wiring scheme as a means of identifying and pairing them to the wallstation or sensor.

