

WCM

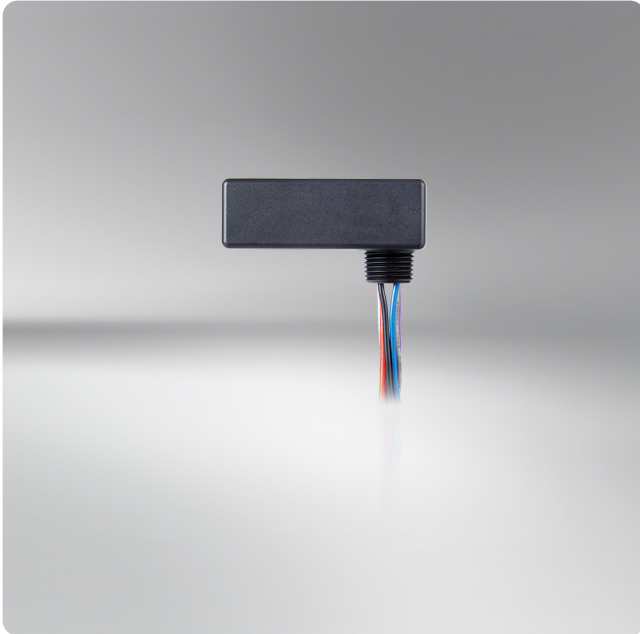
Wireless Control Module

Date: _____

Quantity: _____

Company: _____

Project: _____



The **Wireless Control Module (WCM)** is a key component of the Encelium system. Individually addressable, the WCM enables each ballast or LED driver to be independently controlled and configured to meet the facility's needs. The WCM switches a fixture ON or OFF via a relay contained in the module as well as delivers a low voltage dimming signal to any 0-10V dimming ballast/LED driver.

With GreenBus natively built in the device, the WCM enables a range of devices to be connected, such as occupancy sensors, daylight sensors, and phase-cut dimming modules. Furthermore, it allows wireless hybrid system designs without batteries by allowing DC-powered wallstations and sensors.

Encelium offers a damp-rated WCM for installation in locations subject to moderate degrees of moisture. Examples of this type of environment may include basements, parking garages, cold storage warehouses, and partially protected locations under canopies, marquees, and porches with open roofs.

Works with

- Encelium X
 - ▶ Wireless



Key Features & Benefits

- Wireless capable devices significantly reduces installer labor hours
- Native connection for all GreenBus devices to enable Hybrid system designs
- Connects 0-10V dimmable luminaires allowing customized lighting scenes for tailored experiences/tasks
- Ideal for luminaire or junction box mounting

Specifications

SENSING AND CONTROL

Control

- Wireless Communication

Control Options

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

ELECTRICAL

Absolute Maximum Ratings²

- 4.5A, 120 to 347 VAC – Ballast/LED Driver
- 9A, 120 to 347 VAC – General Purpose
- 5.8A, 120 to 240 VAC – Tungsten

Radio Frequency

- 2.4 GHz

Range

- 30 m (100 ft) line of sight, 15.2 m (50 ft) through standard walls when mounted outside of the junction box

Connections

- Black: Line In, Relay Contact
- Red: Line Out, Relay Contact
- White: Neutral
- Purple: 0-10V +
- Pink: 0-10V -
- Blue: Signal

ENVIRONMENTAL

Operating Temperature

- -40° to 60°C (-40° to 140°F)

PHYSICAL

Dimensions (H x W x D)

- 42.5 x 82.5 x 42.5 mm (1.7 x 3.2 x 1.7 inches)

Weight

- 121 g (4.3 oz)

Housing Color

- Black

Housing Material

- ABS Plastic

Mounting Options

- Luminaire Mount
- Junction Box Mount (Standard PG-7 (0.5 inch) trade-size knockout)
- Mounts Inside Waterproof Enclosure (Indoor Only)

Wire Gauges

- 250 mm (9.8 inches), Black, Red, and White Wires
- 600 mm (23.6 inches), Purple and Pink Wires
- 180 mm (7.1 inches), Blue Wire

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

Environmental Suitability

- Damp Locations (damp-rated units)

Complies with Electromagnetic Compatibility (EMC) Standards:

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

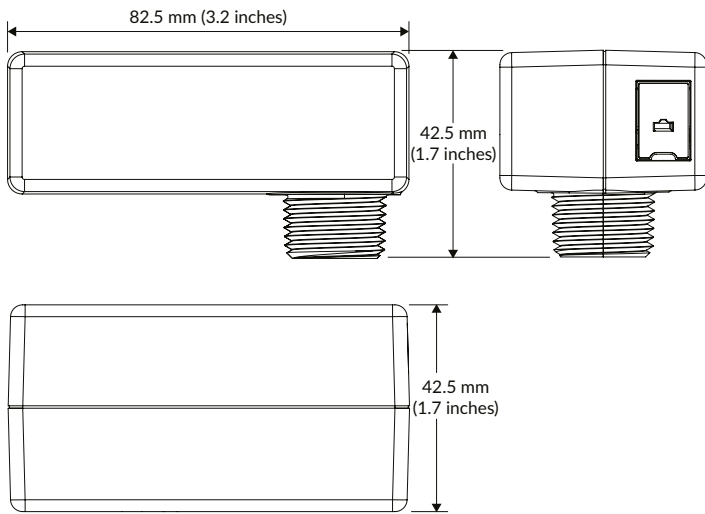


Footnotes:

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

² Maximum of 2 luminaires.

Dimensions

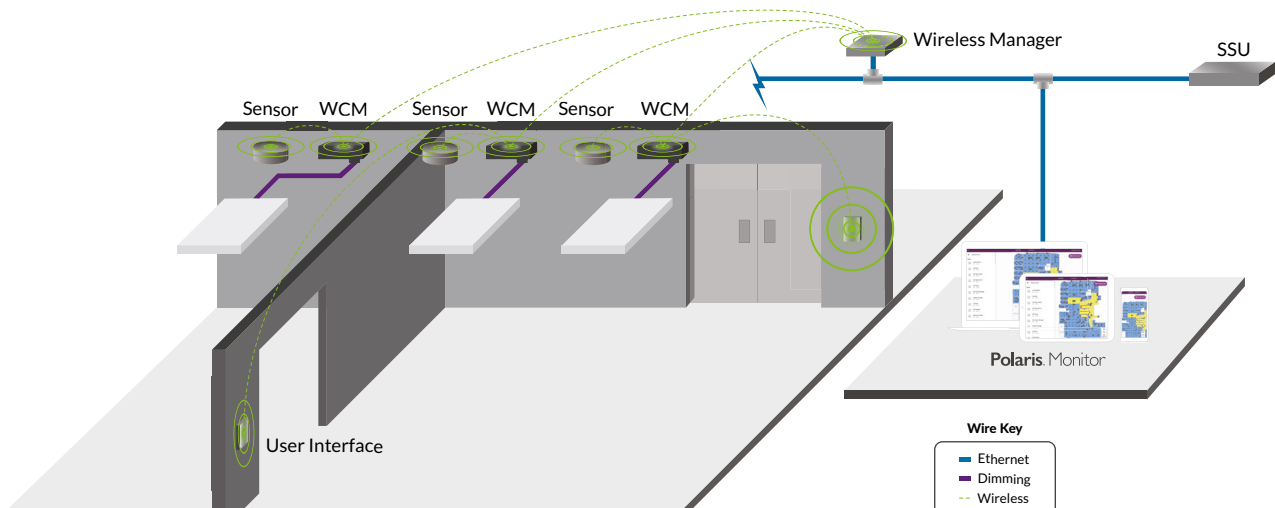


Ordering Information

Catalog Number	Description	Approbation	System Compatibility	Communication Network	Modifiers
EN-WCM2-ZB-DR	Wireless Control Module	UL	Encelium X	Wireless	Damp Rated
EN-WCM2-ZB	Wireless Control Module	UL	Encelium X	Wireless	—

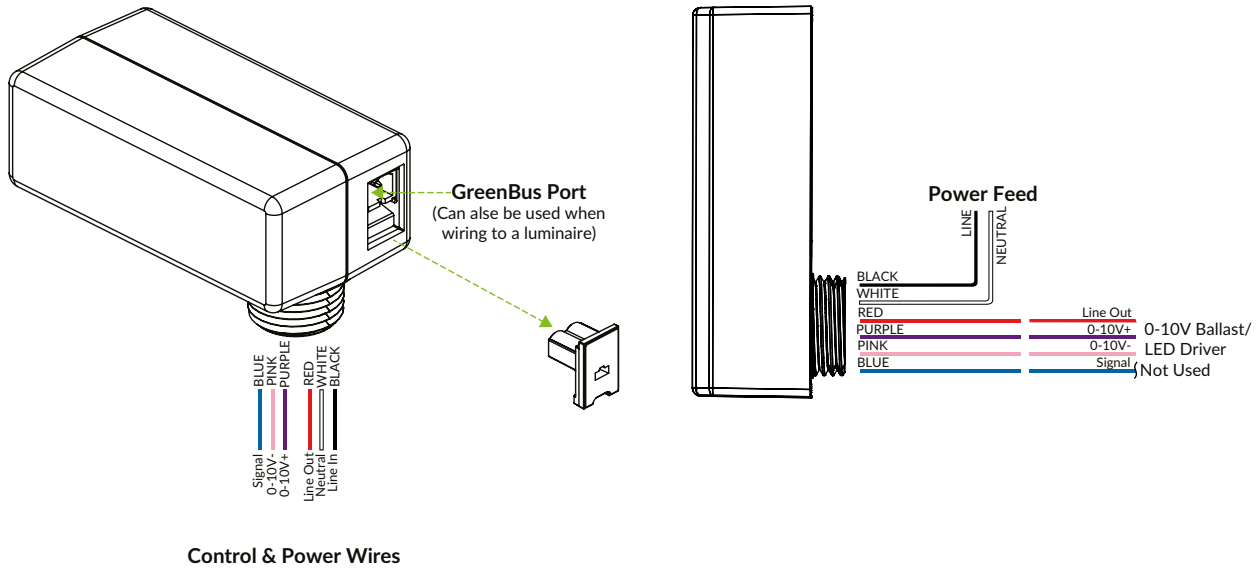
Wireless System Overview

This illustration shows how each component is easily integrated into the Encelium X Lighting Control System.

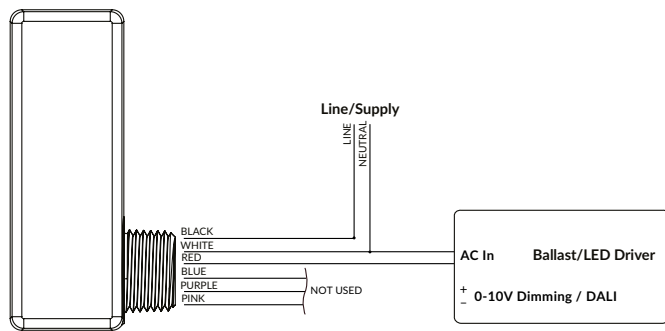


Wiring Diagrams

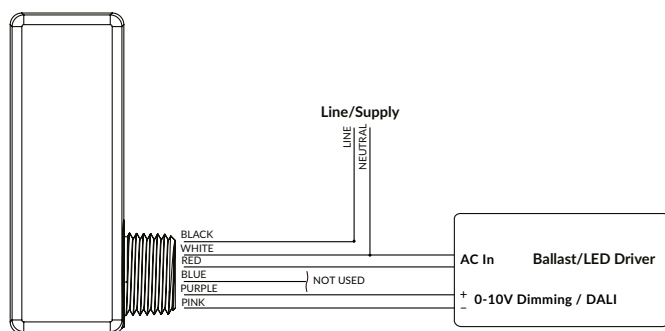
Luminaire Wiring



Non-Dimmable Luminaire Wiring

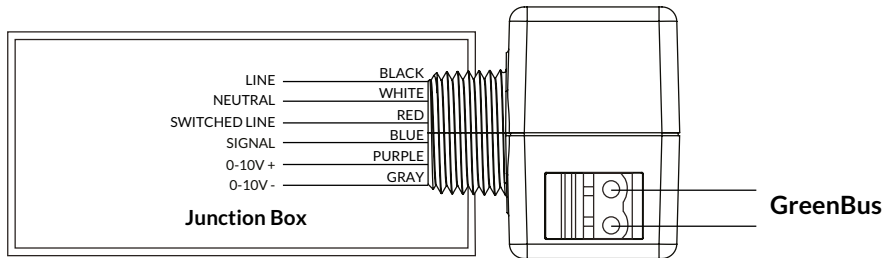


Dimmable Luminaire Wiring

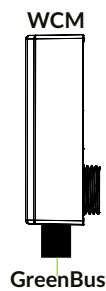


Wiring Diagrams (cont.)

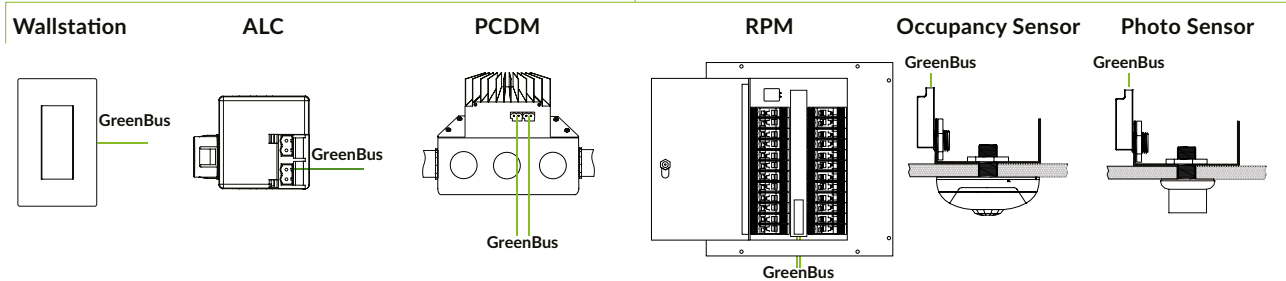
Junction Box Wiring



GreenBus Port Wiring



Note: GreenBus Port can also be used when wiring to a luminaire. Only one GreenBus device can be connected to a WCM.

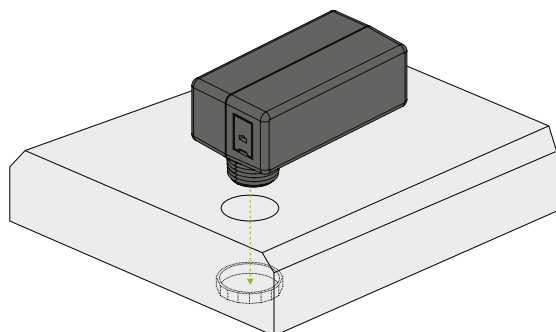


Mounting Options

The mechanical construction allows for simple installation of the WCM to an available PG-7 (0.5 inch) trade-size knockout on the side or on top of a luminaire. 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 WCM to the junction box using an available PG-7 (0.5 inch) trade-size knockout and a retainer nut.

Luminaire Mount



Junction Box Mount

