WALC

Wireless Area Lighting Controller

Date: _____

Quantity: _____

Company: _____

Project: _____

Works with

- Encelium X
  - ▶ Wireless

c**UL**us LISTED

The **Wireless Area Lighting Controller (WALC)** is a wireless control device that operates a switched line AC and 0-10V control to luminaires. It communicates to the Encelium X Wireless Manager over a wireless mesh network.

These individually addressable devices can switch an electrical load up to 20A or a wired zone of multiple luminaires ON or OFF via an integrated high-current relay while setting the zone's overall light level with a 0-10V dimming output wired to the luminaires' dimming ballasts or LED drivers. The WALC 0-10V dimming output is fully isolated and suitable for installation as either an NEC Class 2 or Class 1 wiring.

Key Features & Benefits

- Control for 0-10V dimmable and fixed output ballasts/LED drivers

- Provides hard-wire power to wallstations and sensors to enable wireless system designs without batteries

- Streamlines deployment with capability of powering low-voltage sensors with a built-in terminal block

- Enables wireless control for loads up to 20A

- Configurable high-end and low-end trim

- Mounts to the exterior of a junction box through a standard-size knockout

- Damp rated model available to suit environments with moderate degree of moisture such as basements and garages

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Specifications

SENSING AND CONTROL
Control
- Wireless Communication

Control Options
- On/Off switching
- Single 0-10V dimming output (IEC 60929 Annex E). Capable of sinking 30 mA (this is equivalent to 30 typical dimming ballasts/LED drivers)[1]

ELECTRICAL
Absolute Maximum Ratings
- 20A 120 to 347 VAC — Ballast/LED Driver
- 20A 120 to 347 VAC —Resistive
- 20A 120 to 347 VAC —Tungsten
- 20A 120 to 347 VAC —General Purpose
- 1.5 HP 120 to 277 VAC —Motor

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 -

ENVIRONMENTAL
Operating Temperature
- -40° to 65°C (-40° to 149°F) — 10A
- -40° to 55°C (-40° to 131°F) — 20A

PHYSICAL
Dimensions (H x W x D)
- 67.3 x 89.7 x 40.5 mm (2.7 x 3.5 x 1.69 inches)

Weight
- 178 g (60.3 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 Gauge
- 178 mm (7 inches)

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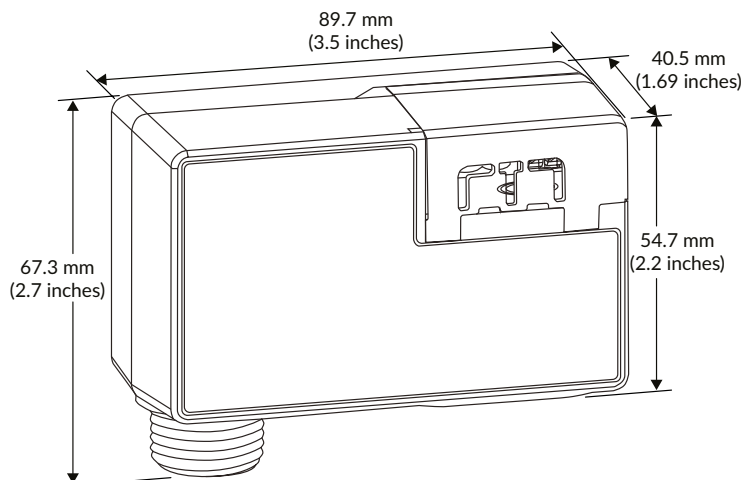- For warranty details, refer to the full warranty documentation at encelium.com

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

Dimensions

89.7 mm (3.5 inches)
40.5 mm (1.69 inches)
67.3 mm (2.7 inches)
54.7 mm (2.2 inches)

Footnotes:

[1] Maximum wire length: 30 m (100 ft), Class 1; 76.2 m (250 ft), Class 2.

Ordering Information

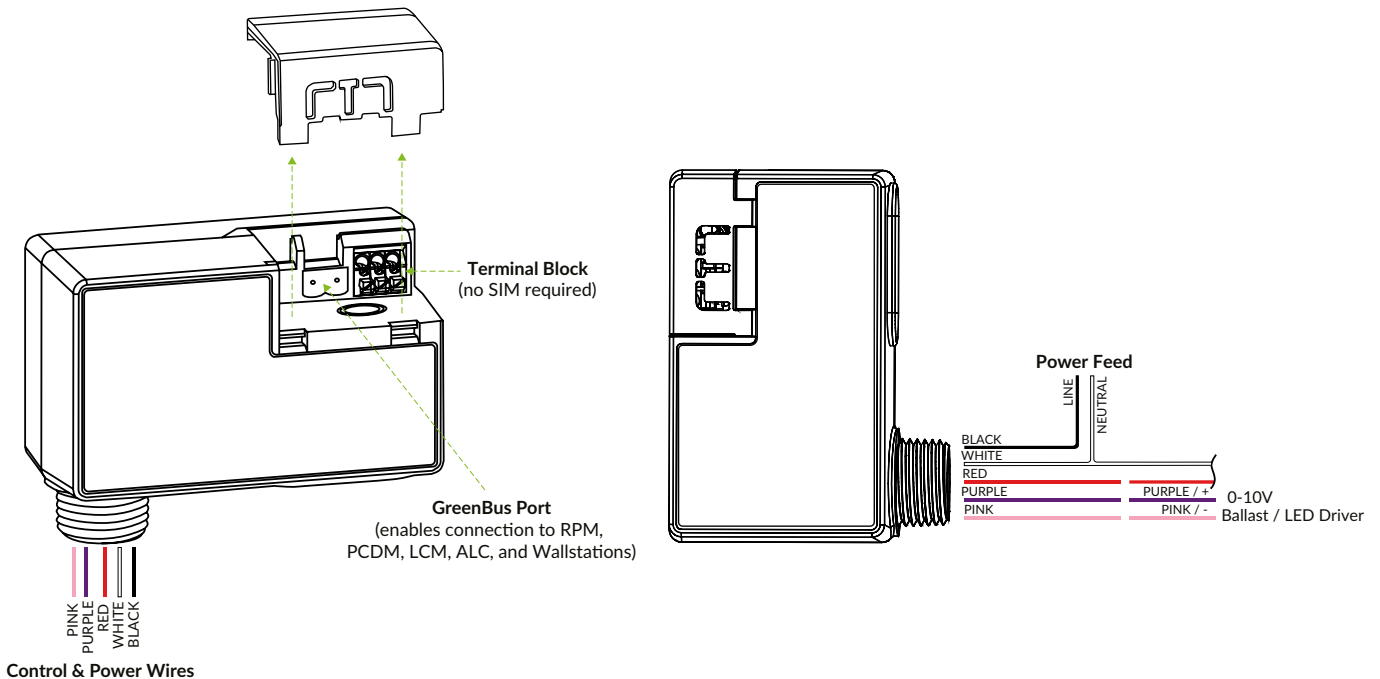| Catalog Number	Description	Approbations	Communication Network	Modifiers
EN-ALC-ZB-BK	Wireless Area Lighting Control Module	UL	Wireless	Indoor
EN-ALC-ZB-BK-DR	Wireless Area Lighting Control Module	UL	Wireless	Damp Rated - DR

Wireless System Overview

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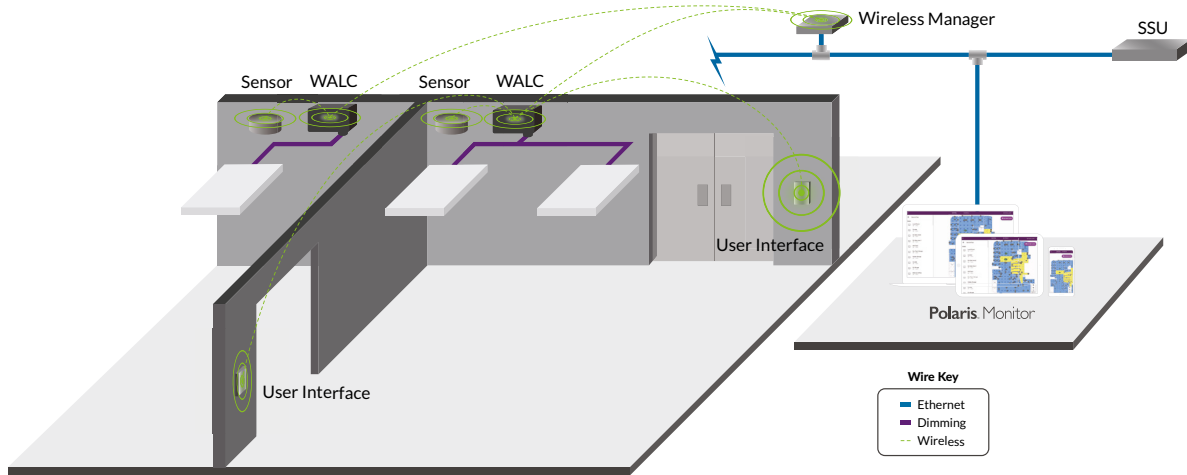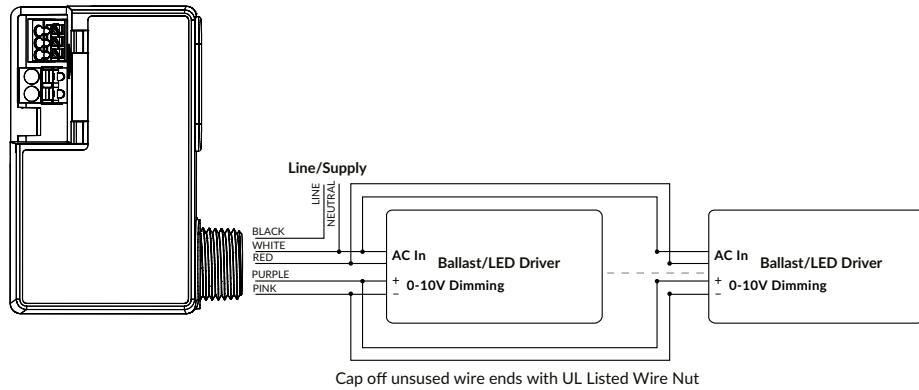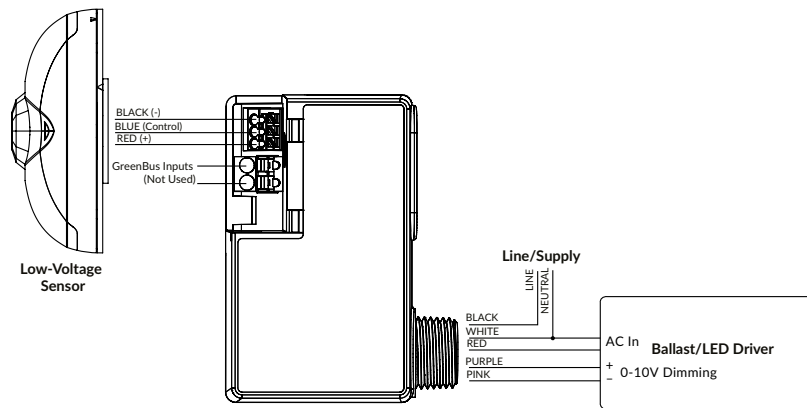

Wiring Diagrams

WALC Wiring

Wiring Diagrams (cont.)

WALC to Dimming Ballast/LED Driver Wiring

Line/Supply
LINE
NEUTRAL

BLACK
WHITE
RED
PURPLE
PINK

AC In   **Ballast/LED Driver**
+ 0-10V Dimming
−

AC In   **Ballast/LED Driver**
+ 0-10V Dimming
−

Cap off unsused wire ends with UL Listed Wire Nut

WALC to Sensor Wiring

BLACK (-)
BLUE (Control)
RED (+)

GreenBus Inputs
(Not Used)

**Low-Voltage
Sensor**

Line/Supply
LINE
NEUTRAL

BLACK
WHITE
RED
PURPLE
PINK

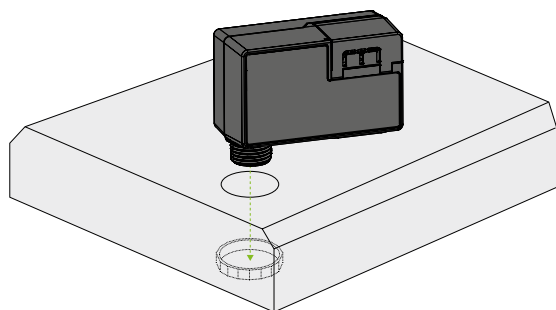AC In   **Ballast/LED Driver**
+ 0-10V Dimming
−

Mounting Options

The mechanical construction allows for simple installation of the WALC 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 WALC to the junction box using an available PG-7 (0.5 inch) trade-size knockout.

Luminaire Mount

Junction Box Mount

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