

# Area Lighting Control (ALC) Module



The Area Lighting Control (ALC) Module provides a high power switching and dimming interface between a group of luminaires and the ENCELIUM® EXTEND Networked Light Management System (LMS). Individually addressable, the ALC switches a single wired zone of multiple luminaires ON or OFF via an integral high current relay while setting the zone's overall light level with a 0-10V dimming output wired to the fixtures' dimming ballasts or LED drivers. The ALC's dimming output is fully isolated and suitable for installation as either a NEC Class 2 or Class 1 circuit. The ALC is able to switch and dim many LED luminaires with 0-10V drivers compliant to the lighting industry's open standard IEC 60929 Annex E. The ALC can switch an entire circuit of electrical loads and is suitable for general purpose plug load control.

OSRAM offers a special Damp-Rated Area Lighting Controller for installations in locations subject to moderate degrees of moisture. Examples of this type of environment may include basements, parking garages, barns, and cold-storage warehouses as well as partially protected locations under canopies, marquees and roofed open porches.

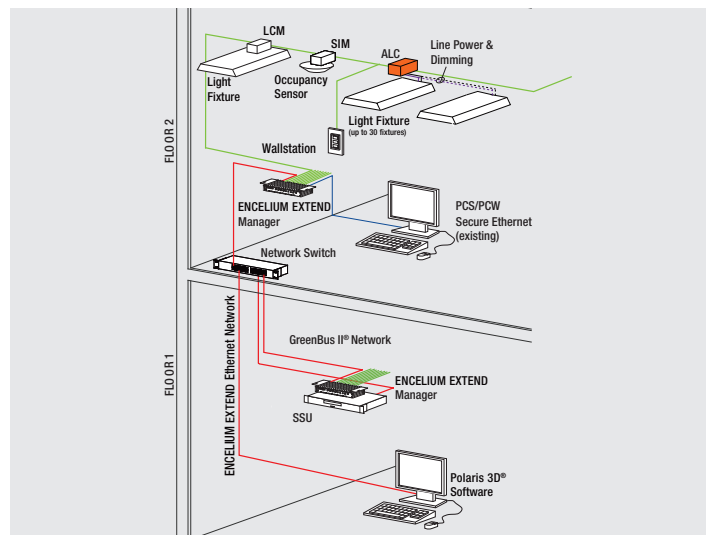
## System Compatibility

- Works with ENCELIUM® EXTEND Networked Light Management System

## Key Features & Benefits

- Control for 0-10V dimmable and fixed output LED drivers/ballasts
- Enables control for loads up to 20A
  - Customize lighting scenes
  - Adjust light levels to respond to variable lighting requirements
  - Schedule luminaire group to lower energy use during peak times
  - Adjust luminaire group assignments for space layout changes
  - Adjust plug load usage
  - Emergency luminaire control

## ENCELIUM® EXTEND Networked Light Management System Architecture



### System Architecture

This illustration shows how each component is easily integrated into the ENCELIUM EXTEND Networked Light Management System (LMS). GreenBus II is a two-wire communication topology for supplying data and power to the system. Each light fixture, sensor, and wall controller is daisy chained back to the ENCELIUM EXTEND Manager using pre-terminated 'click & go' GreenBus II communication cabling. Managers typically control individual floors and are linked via an Ethernet Network. Internet or LAN connection allows floor plan based control software to be operated anywhere on the network. For reference, the component shown on this data sheet is highlighted.

## Specifications

### Electrical (Absolute Maximum Ratings)

- 20A 120-347 V<sub>AC</sub> Ballast
- 20A 120-347 V<sub>AC</sub> Resistive
- 20A 120-347 V<sub>AC</sub> Tungsten
- 20A 120-347 V<sub>AC</sub> General Purpose
- 1.5 HP 120-277 V<sub>AC</sub> Motor

### Control Options

- Single 0-10V dimming output (IEC 60929 Annex E). Capable of sinking 30mA (corresponding to 30 typical dimming ballasts/drivers)<sup>1</sup>
- Connects to the ENCELIUM® EXTEND Networked Light Management System via two ports that accept pre-terminated GreenBus II® Communication Cable

### Environmental

- Operating temperature range: 0°C (32°F) to 55°C (131°F)

### Physical

- Dimensions: 1.9" W X 2.4" L X 1.75" H (48.26mm W X 60.96mm L X 44.45mm H)
- Suitable for luminaire or junction box mounting in standard 1/2" knockout (7/8" dia.)

### Regulatory

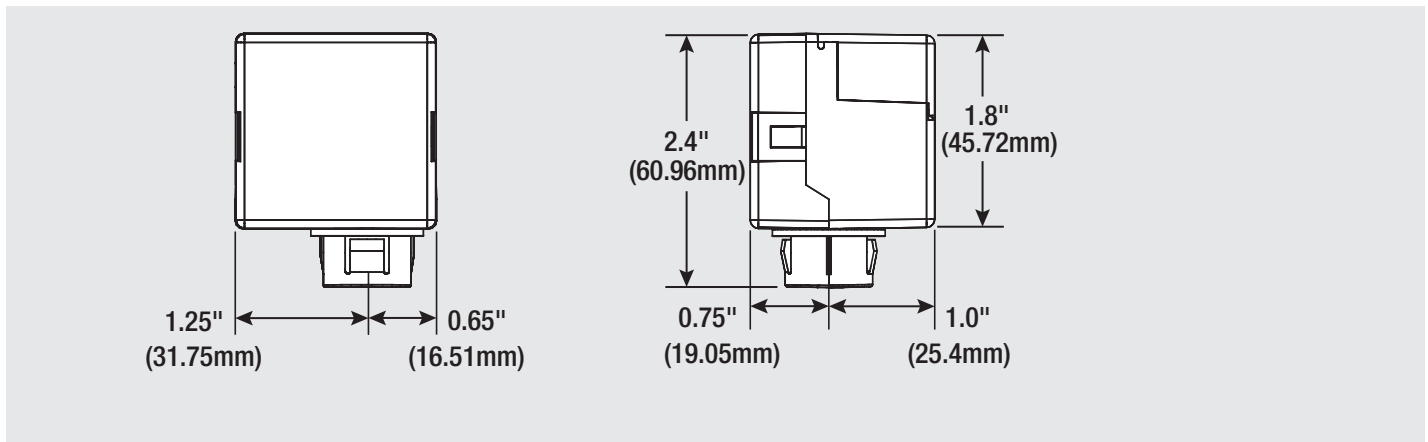
- Energy Management Equipment (UL 916 cULus Listed)
- Emergency Lighting Equipment (UL 924 cULus Listed)
- Heat and Smoke Release for Air-Handling Spaces (UL 2043)
- FCC Part 15/ICES-003
- Complies with the following electromagnetic requirements:
  - EN 61000-4-2
  - EN 61000-4-4
  - EN 61000-4-5
- Install in accordance with all applicable national and local electrical and building codes.

<sup>1</sup>Maximum wire length: 100ft., Class 1; 250ft., Class 2

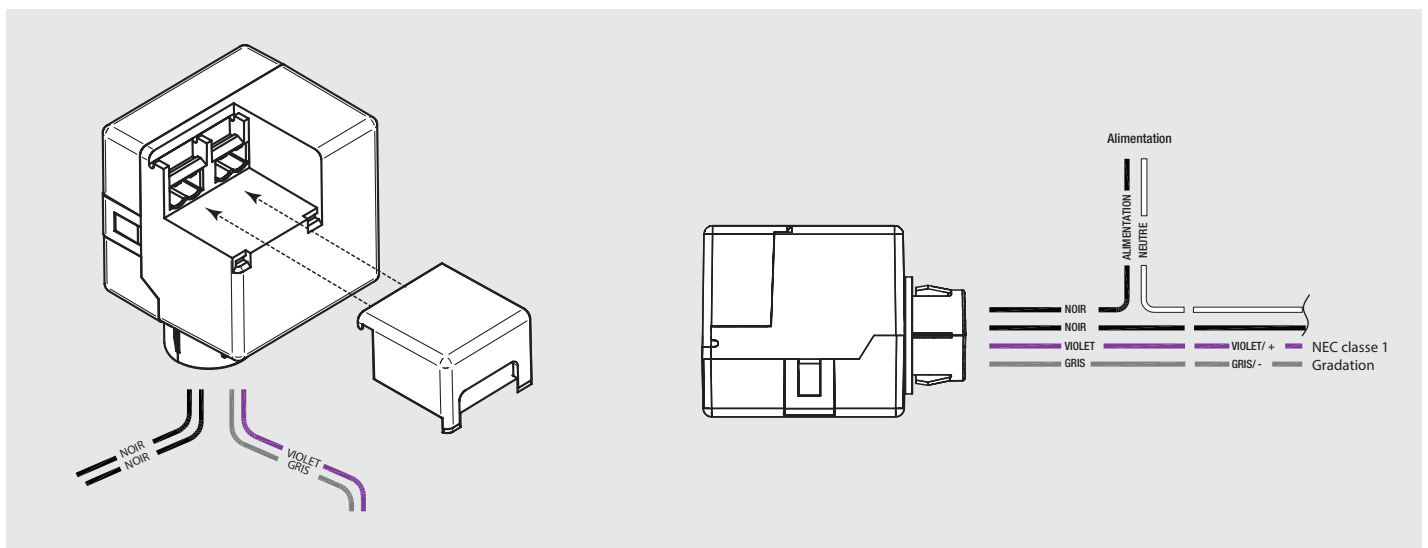
## Ordering Information

Item Number	Ordering Abbreviation	Field Bus	Modifiers
45270	EN-ALC-1R10V-GB2-BK	GB2	Black
45431	EN-ALC-1R10V-GB2-BK-DR	GB2	Black/Damp Rated

## Dimensions



## Wiring Diagrams



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## Wire Table

Wire Color	Function	Wire Length
BLACK	Line In/Out – Relay Contact	6"
BLACK	Line In/Out – Relay Contact	6"
VIOLET	NEC Class 1 or 2, Low Voltage, 0-10V <sub>bc</sub> , 30mA max.	6"
GREY	NEC Class 1 or 2, Low Voltage, 0-10V <sub>bc</sub> , 30mA max.	6"

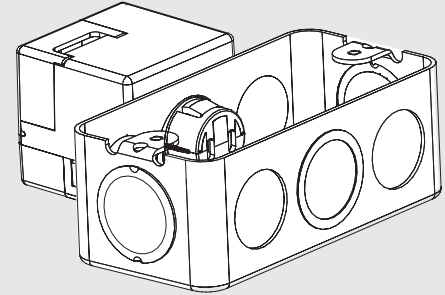
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## Mounting Details

### Fixture Mounting

The mechanical construction allows for simple installation of the ALC to an available ½ inch knock-out on the side or on top of a luminaire as shown here. GreenBus II® 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 ALC to the junction box using an available ½ inch knock-out.



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## Warranty

Warranty documentation is available at [www.osram.us](http://www.osram.us)

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