



# Wireless Lighting Controller ON/OFF & 0(1)-10V Dimming

## Product Features

- ZigBee Wireless Control of Luminaires
- +20dBm ZigBee transmit power
- ON/OFF and 0(1)-10V Analog Dimming Control, 100mA Sink
- Compatible with LED Drivers and Electronic Ballasts that comply with IEC60929 Annex E2, 1-10V Dimming.
- ON/OFF AC switching up to 277Vac
- Stores last dim setting even when powered off.

## Environmental

1. Operating temperature: Tc Maximum 72 °C, Ambient -5 to +50°C Max.
2. Storage temperature range: -40 to +80°C
3. Humidity (non-condensing): 5% - 95%RH
4. Cooling: Convection
5. Vibration Frequency: 5-55Hz/2g, 30 minutes
6. Impact resistance: 1g/s

## Safety and Compliance

1. UL916, CSA 22.2 No. 205 safety compliant
2. FCC, 47CFR Part 15 Class B compliant
3. ZigBee HA Certified
4. Compact, Lightweight.
5. US Patent Pending
6. EN61000-4-5: 2kV L-N, 8/20 µsec surge protection.

## Electrical Specifications at 25°C

- Input voltage range: 100-277Vac
- Frequency: 47 - 63HZ
- AC Relay Resistive Switched Current: ≤9A, See Page 3 and Note (1) below for load ratings.
- Input current Module Power: ≤0.05A for Units power use

## Part Numbers



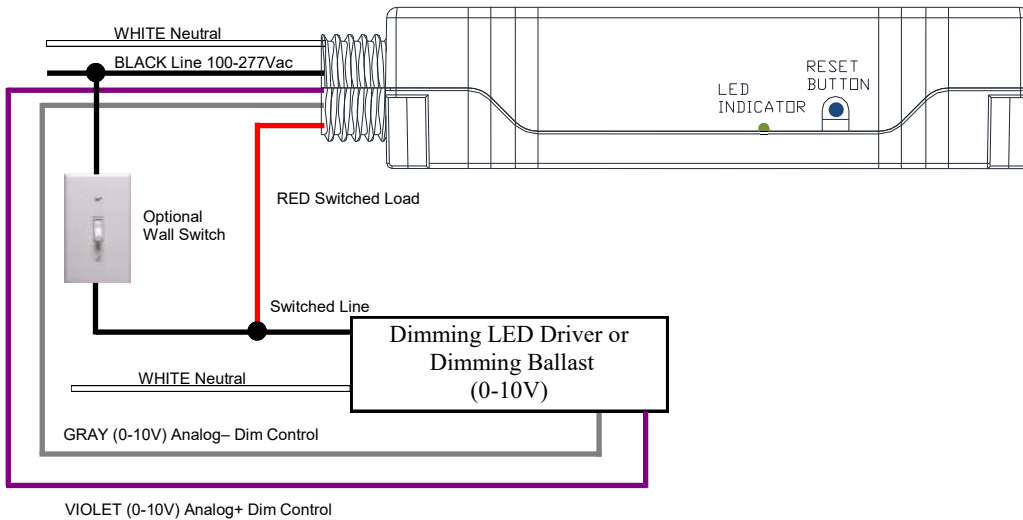
IP50



| Part Number | Dimming US Class 2 | Dimming CN Class 2 | Control   | ON/OFF Control | 0(1)-10V Analog | AC Relay Voltage Range | AC Relay Maximum Current <sup>(1)</sup> |
|-------------|--------------------|--------------------|-----------|----------------|-----------------|------------------------|---|
| LCM-1C09-ZB | YES                | YES                | ZigBee HA | YES            | YES             | 100-277Vac             | 9A                                      |

## Typical Application Circuit

### LCM-1C09-ZB



### (1) Max Rated AC Relay Loads (RED Wire):

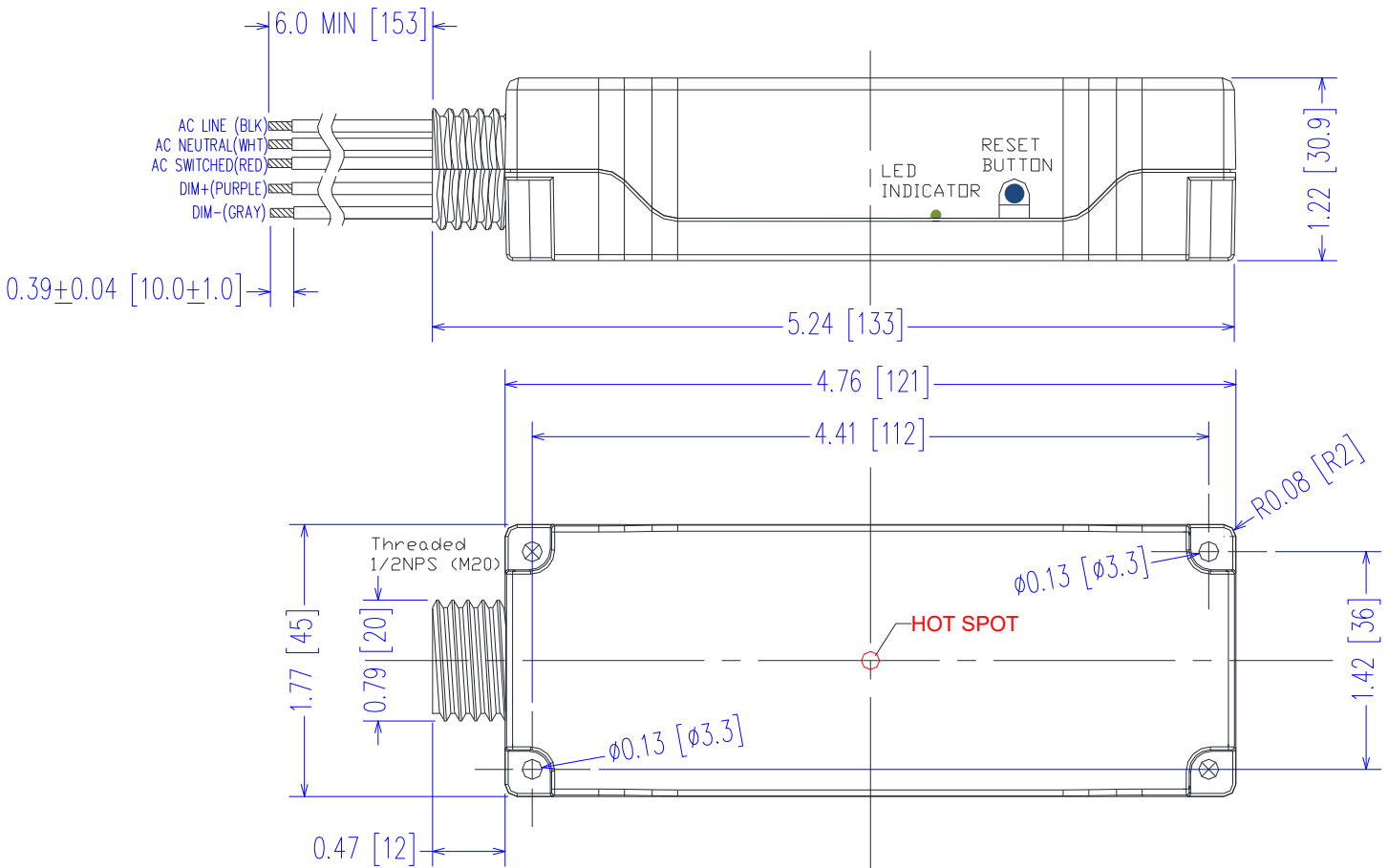
LED Driver, Electronic Ballast, Incandescent & Inductive Load: 1200W @ 277VAC, 1000W @ 208-240VAC, 800W @ 120VAC  
AC Resistive Load: 100-277Vac 50/60Hz, 9A Maximum.

# Wireless Lighting Controller ON/OFF & 0(1)-10V Dimming

## Mechanical Dimensions: Inches [mm]

Material: Gray 5VA PC ABS Plastic Case  
Weight: 105 Grams (3.7 oz.) Typical

## Labeling Example



## INSTALLATION & MOUNTING INSTRUCTIONS

Case can be mounted using the 2 mount holes provided.  
2 each #4 x 1" Round Head Screws or equivalent.

## Wireless Lighting Controller ON/OFF & 0(1)-10V Dimming

### Input Specifications

| Parameter                     | Min.   | Typ. | Max.    | Notes/Conditions                          |
|-------------------------------|--------|------|---------|---|
| Input Voltage                 | 90 Vac | —    | 277 Vac | 120, 230, 240, 277 Vac Nominal Values     |
| Input Frequency               | 47 Hz  | —    | 63 Hz   | 50/60Hz Nominal                           |
| Relay AC Current              | —      | —    | 9.0 A   | Measured at 120Vac/60Hz Input             |
| ZigBee Control Transmit Power | —      | —    | +20dBm  | ON/OFF and 0-10V dimming, Standard ZigBee |

### Output Specifications

| Parameter                                       | Min.   | Typ. | Max.   | Notes/Conditions  |
|---|--------|------|--------|---|
| AC Relay Switch ON/OFF (Vac)                    | 0      | —    | 277Vac | Relay N/O Contacts  |
| AC Relay Load @120VAC (W)                       | 0      | —    | 800W   | Fluorescent, LED Drivers, Incandescent & Inductive Loads  |
| AC Relay Load @ 208-240Vac (W)                  | 0      | —    | 1,000W | Fluorescent, LED Drivers, Incandescent & Inductive Loads  |
| AC Relay Load @ 277Vac (W)                      | 0      | —    | 1,200W | Fluorescent, LED Drivers, Incandescent & Inductive Loads  |
| AC Relay Load Resistive @ 120-277Vac (A)        | 0      | —    | 9A     | Resistive Loads   |
| Sink Current on 0-10V (+) Purple Wire           | 0mA    | —    | 100mA  | IEC60929 Annex E2   |
| Relay Inrush Current (Peak)                     | —      | —    | 68A    | Measured at 120Vac/60Hz Input, 10% Ipeak duration ~0.75msec   |
|   | —      | —    | 60A    | Measured at 277Vac/60Hz Input, 10% Ipeak duration ~0.75msec   |
| Absolute Voltage Range on 0-10V (+) Purple Wire | -20.0V | —    | +20V   | IEC60929 Annex E2   |
| Dimming Range                                   | 0.9V   | —    | +10V   | Ballast or Led Driver provides Dim Voltage & Current per IEC60929 Annex E2, 0(1)-10V Analog Dimming |

### Environmental Specifications

| Parameter                  | Min.   | Typ. | Max.   | Notes/Conditions  |
|----------------------------|--------|------|--------|---|
| Case Temperature (Tc)      | —      | —    | +72 °C | Measured at location specified on case.                             |
| Operating Temperature (Ta) | -5 °C  | —    | +50 °C | Operating temperature range.  |
| Storage Temperature (Ts)   | -40 °C | —    | +85 °C | Non operating temperature range.                                    |
| Operating Humidity         | —      | —    | 95% RH | Relative Humidity, non-condensing.                                  |
| Vibration                  | 5 Hz   | —    | 55 Hz  | 2G, 10 minutes/1 cycle, period 30 minutes, each along X, Y, Z axis. |

### Safety & EMC Compliance

| Safety                             | Notes/Standards                                  |
|------------------------------------|--|
| cULus Listed                       | UL916, CSA 22.2 No. 205                          |
| CE                                 | EN61347-1, EN61347-2-13                          |
| Withstand Voltage Relay            | Input to Output Across Relay Contacts: 700 Vac   |
| Withstand Voltage AC In to Dim Out | Input to DIM: >1750 Vac                          |
| Dimming Circuit                    | UL & cUL Isolated Class 2, Dim+ Purple/Dim- Gray |
| FCC                                | Compliant Class B                                |
| EN 61000-4-5                       | Part 4-5: Surge Immunity test, 2 kV L-N          |

**Wireless Lighting Controller**  
**ON/OFF & 0(1)-10V Dimming**

Lighting Controller

**Wireless**  
**LCM-1C09-ZB**

