

# 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. UL8750, CSA 22.2 safety compliant, UL2043 Plenum Rated
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



IP50

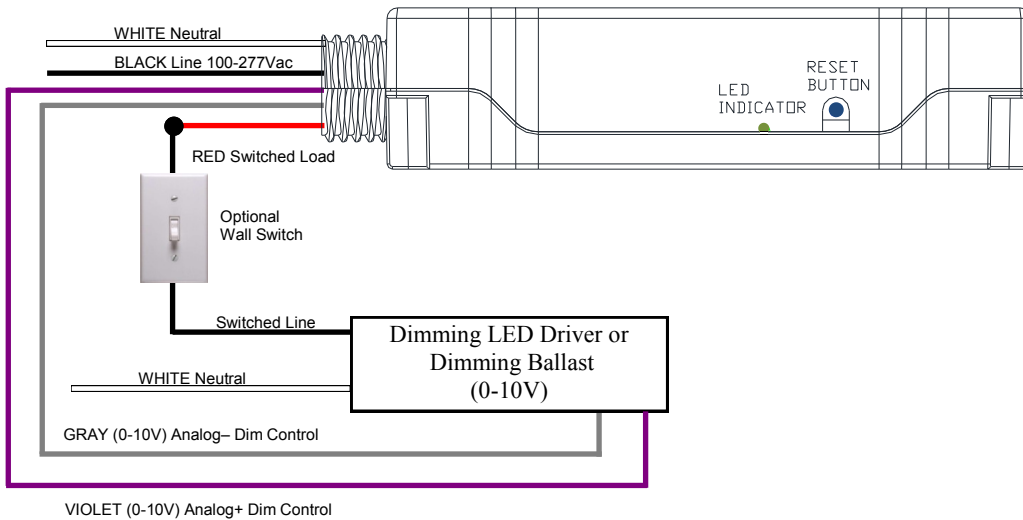


## Part Numbers

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):

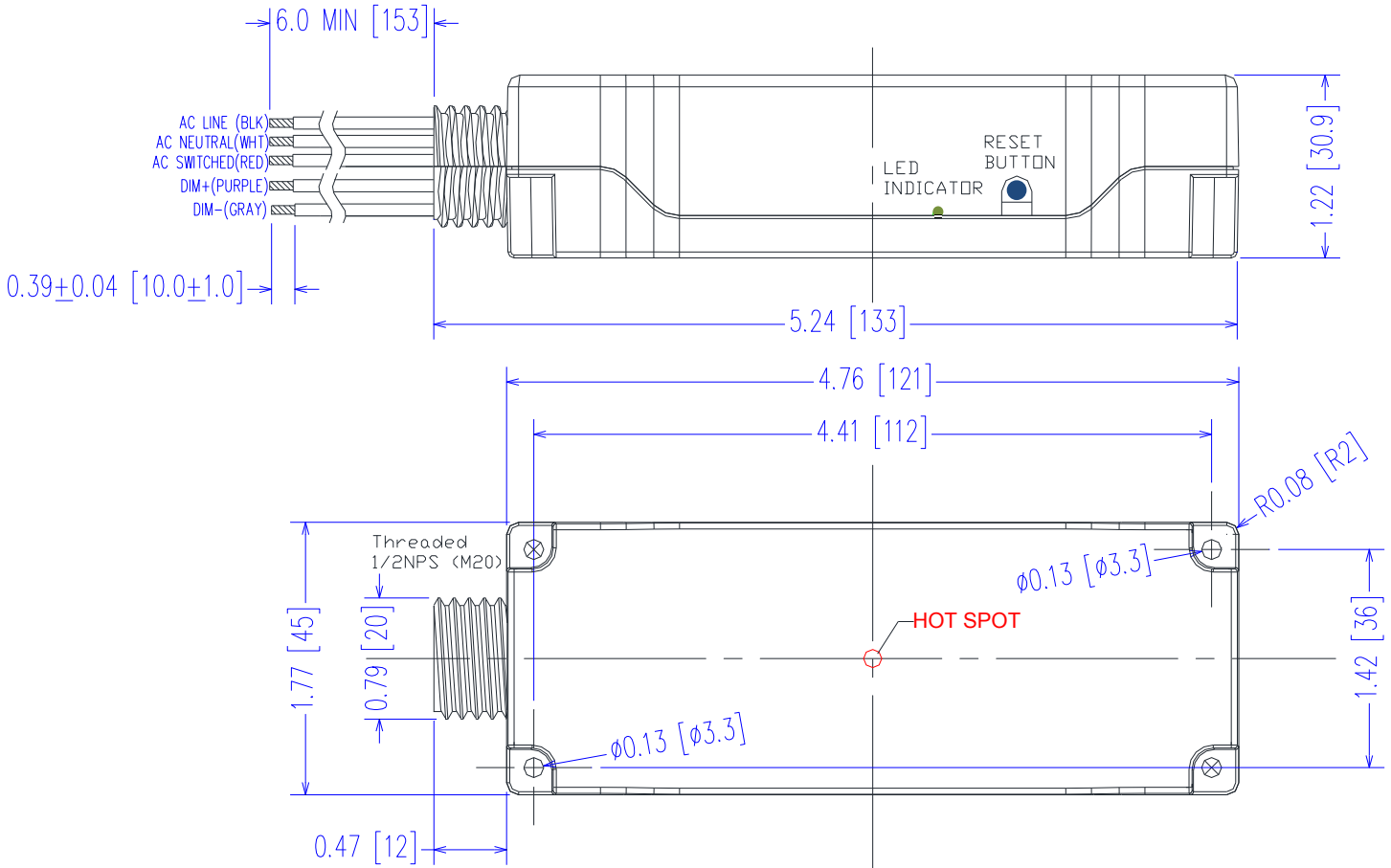
LED Driver, Electronic Ballast, Incandescent & Inductive Load: 1200W @ 277VAC, 1000W @ 208-240VAC, 800W @ 120VAC  
AC Resistive Load: 100-277Vac 50/60Hz, 9A Maximum.

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

**Wireless**  
**LCM-1C09-ZB**  
**Lighting Controller**

**Mechanical Dimensions: Inches [mm]**

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



**Labeling Example**

		ZigBee HA Wireless Lighting Controller EuControls Corp. www.EuControls.com	
AC INPUT L = BLACK N = WHITE RED SWITCHED 100-277Vac 1-10V DIM OUTPUT DIM+ = PURPLE DIM- = GRAY Made in China	Part Number: LCM-1C09-ZB Input Voltage: 100 - 277VAC 50/60Hz Input Current: 9.05 Amp Max Switched Output: Fluorescent, Incan, LED 120Vac: 800W Max, 208-240Vac 1000W Max 277Vac 1200W Max 1-10V Sink Dimming Output, @ 100mA Sink 1-10V Output is UL & cUL Class 2		HG REV A2

## 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	Isolated 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 (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 $\approx$ 0.75msec
	—	—	60A	Measured at 277Vac/60Hz Input, 10% Ipeak duration $\approx$ 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
UL/CUL	UL8750 & CAN/CSA C22.2 No. 250.13, UL2043 Plenum Rated
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

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Lighting Controller

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

