

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



Wireless Dimmer
LCM-1C20-RF
Wireless

Product Features

- RF, Cordless Control of Luminaires
- 2.4GHz, +8dBm RF transmit power
- ON/OFF and 0(1)-10V Analog Dimming Control, 100mA Sink
- Compatible with Electronic Ballasts & LED Drivers 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: -20 to +50°C
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. UL244A Listed
2. FCC, 47CFR Part 15 Class B compliant
3. ZigBee HA Certified
4. Damp, Dust Proof Design IP50
5. 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 Switched Current: ≤20A Resistive, See Page 3 for load ratings.
- AC Zero Cross Switching
- Input current Module Power: ≤0.05A for Units power use

Part Numbers

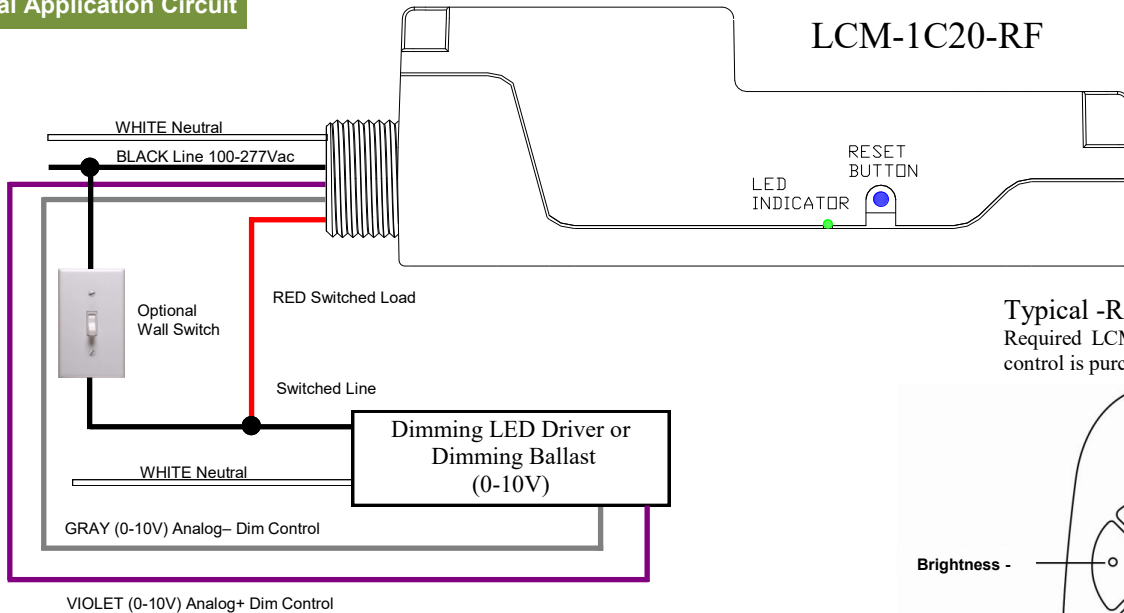


IP50

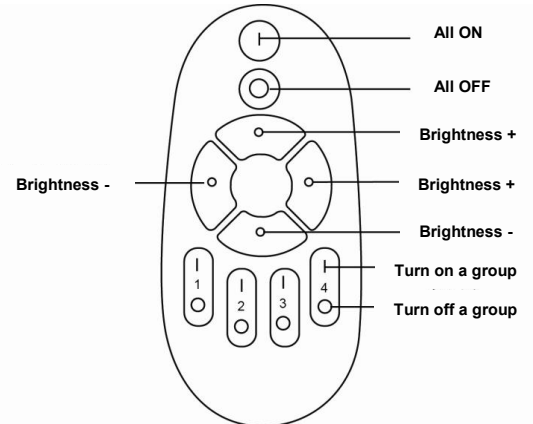


Part Number	Dimming US Class 2	Dimming CN Class 2	Control	ON/OFF Control	0(1)-10V Analog	AC Relay Voltage Range	AC Relay Maximum Current ⁽¹⁾
LCM-1C20-RF	YES	YES	RF	YES	YES	100-277Vac	20A

Typical Application Circuit



Typical -RF Version Control
Required LCM-RF-REMOTE remote control is purchased separately



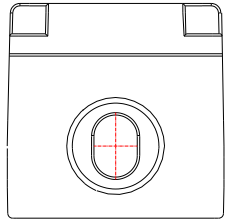
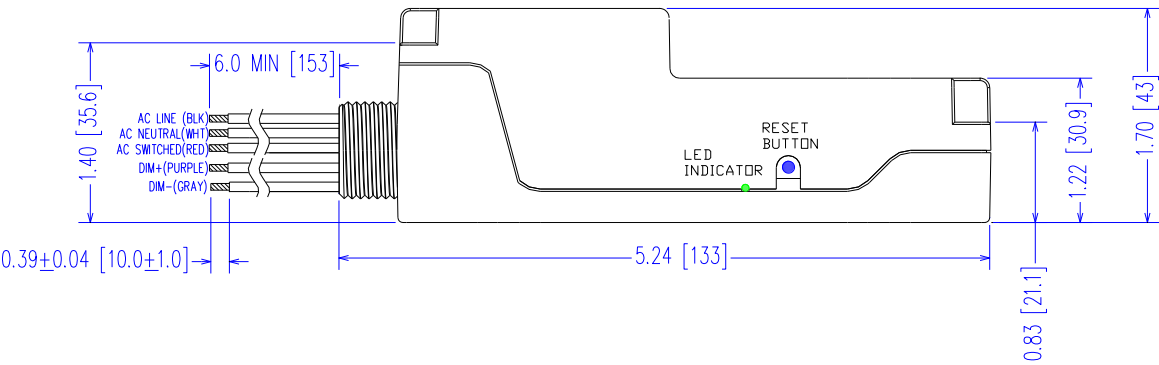
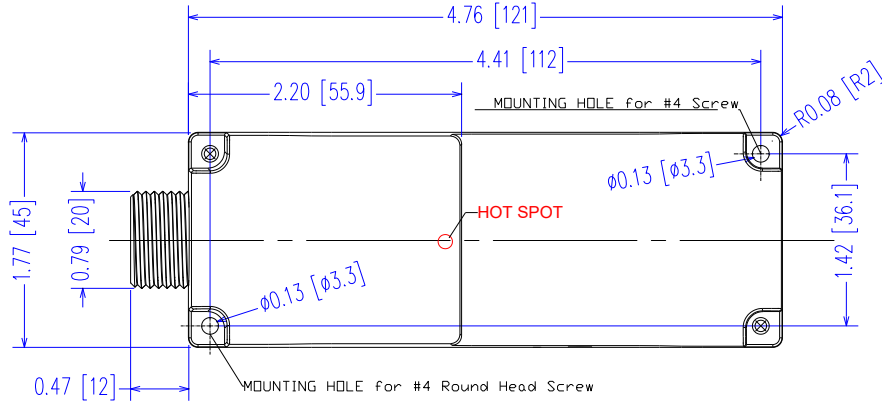
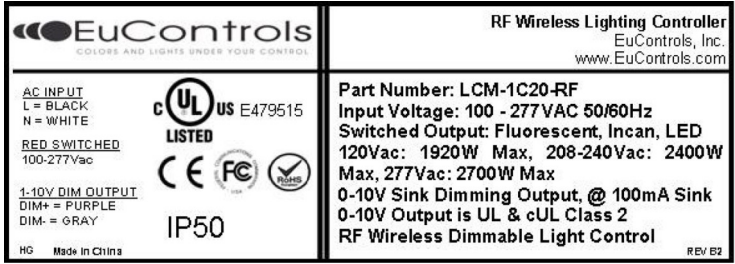
Note: (1) Max Rated AC Relay Loads (RED Wire): AC Zero Cross Switching E-Ballasts, Magnetic Ballast, LED Drivers & Incandescent Loads:
2,216W @ 277VAC, 8A
1,920W @ 208-240VAC, 8A
1,920W @ 120VAC, 16A
AC Resistive Load: 100-277Vac 50/60Hz, 20A Maximum.

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Mechanical Dimensions: Inches [mm]

Material: Gray 5VA PC ABS Plastic Case
Weight: 140 Grams (5.0 oz.) Typical

Labeling Example



INSTALLATION & MOUNTING INSTRUCTIONS

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

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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
RF Control Transmit Power	—	—	+8dBm	ON/OFF and 0-10V dimming, 2.4GHz GFSK Modulation

Output Specifications

Parameter	Min.	Typ.	Max.	Notes/Conditions
AC Relay Switch ON/OFF (Vac)	0	—	277Vac	Relay N/O Contacts, AC Zero Cross Switching
AC Relay Load @120VAC (W)	0	—	1,920W	16A, Fluorescent, LED Drivers, Incandescent & Inductive Loads
AC Relay Load @ 208-240Vac (W)	0	—	1,920W	8A, Fluorescent, LED Drivers, Incandescent & Inductive Loads
AC Relay Load @ 277Vac (W)	0	—	2,216W	8A, Fluorescent, LED Drivers, Incandescent & Inductive Loads
AC Relay Load Resistive @ 120-277Vac (A)	0	—	20A	Pure Resistive Load
Relay Inrush Current (Peak)	—	—	250A	Measured at 120Vac/60Hz Input, 10% Ipeak duration \approx 2.1msec
	—	—	370A	Measured at 277Vac/60Hz Input, 10% Ipeak duration \approx 1.25msec
Sink Current on 0-10V (+) Purple Wire	0mA	—	100mA	IEC60929 Annex E2
Absolute Voltage Range on 0-10V (+) Purple Wire	-20.0V	—	+20V	IEC60929 Annex E2
Dimming Range	0.3V	—	+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)	-20 °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 Listed	UL244A, UL508, CSA22.2 NO. 14-13, 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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