WIRELESS DIMMING ROOM CONTROLLER WITH CONTACT CLOSURE

LMRC-611MCC



- Built-in IPv6 Mesh and Bluetooth® low energy technology antenna provides robust signal strength and reliable communication
- Uses IPV6 Mesh to establish network communication with all DLM wireless devices.
- Quick and easy KO mounting and wireless communication to other wireless room devices
- Plenum-rated wireless room controller with 0-10 volt dimming output
- Contact closure for easy integration with HVAC or other VAV systems
- Commissioning using DLM Configuration App and Plug n' Go automatic configuration











DESCRIPTION

The LMRC-611MCC is a wireless DLM room controller, part of the wireless Digital Lighting Management (DLM) system which includes occupancy sensors, daylighting controls, and switches for energy-efficient room control. The LMRC-611MCC includes one relay to switch a total of 10 amps, a high-efficiency switching power supply, and both Class 1 and Class 2 0–10 volt outputs for control of dimmable loads including compatible LED drivers and electronic ballasts.

OPERATION

The LMRC-611MCC room controller is wired to a single 120 or 277 volt circuit. It communicates via a self formed wireless IPv6 mesh network to sensors and switches in DLM local network. Once installed it forms a wireless mesh network by automatically connecting to the edge DLM devices in the room (wireless DLM switches and sensors) drastically reducing installation time and eliminating wiring errors. Plug n' Go commissioning is then accomplished through one of two options:

- DLM Configuration App available for iOS® or Android®. Simply walk through the on screen prompts to connect and configure wireless DLM devices in the room. Plug n' Go automatic configuration assigns all loads connected to dimming room controllers to the dimming switch upon system startup.
- 2. **Push-to-Pair** Press the "config" button on each wireless device in the room to pair them together.

After commissioning, Plug n' Go automatically configures system components for the most energy-efficient operation. The room controller then dims or switches lighting or motor loads in response to input from the communicating devices. When a dimming input is received, the relay switches on automatically when the dimmed level rises above zero, and off when it reaches zero. It also monitors the current and voltage of the connected load. Each room controller stores up to 16 scene preset levels for its dimmed output.

APPLICATIONS

LMRC-611MCC room controllers are ideal for single or multiple zone on/off or dimming control applications including private offices, open offices, conference rooms and classrooms.

PLUG N' GO AUTOMATIC CONFIGURATION

DLM room controllers manage Plug n' Go automatic system configuration, which establishes functionality based on the installed components. Each LMRC-611-16M includes a Bluetooth low energy technology radio to communicate with the DLM Configuration App on the installer's mobile device, instead of configuring settings using the LMCT-100 IR remote. Dimming and system parameters may also be customized using Push n' Learn.

When room controllers are connected, the system defaults to automatic on/off operation. At system startup, default dimming parameters are established including: levels for scene presets 1-4; fade times; and fade and ramp rates.

PROJECT LOCATION/ TYPE

1

FEATURES

- Component of the wireless Digital Lighting Management integrated control system
- Robust and reliable BACnet IPv6 Mesh Network based on open standards & protocols
- Device Validation: Trusted hardware chips prevent outside devices from connecting to the lighting control network.
- Zero touch provisioning: Pre-loaded digital identity and security profile increases system security level.
- Ongoing AES encryption: Communication between devices is protected by AES128 symmetric key encryption
- Multiple options for commissioning: the DLM Configuration App for iOS or Android, Push n' Learn
- On/Off/Dim local override button for each load
- IPv6 Mesh wireless standard delivers reliable, long range, low latency wireless communication that is scalable for a single room with up to 48 loads or devices

- Firmware can easily be updated over the air using the DLM Configuration App via Bluetooth low energy technology
- Push n' Learn™ functionality for personalization without the need for tools or a PC
- Built-in IPv6 Mesh/Bluetooth low energy technology antenna provides robust signal strength and reliable communication
- 0-10V signal opens on loss of LMRC power
- Instantaneous current and voltage measurement of connected load
- Zero-crossing circuitry for each relay for reliability and increased product life
- UL 2043 plenum rated
- Contact closure based on occupancy status, for easy integration with HVAC systems.
- The product meets the materials restrictions of RoHS

SPECIFICATIONS

- Input Voltage: 120/277VAC, 50/60Hz
- Load Requirements:
 - Incandescent: 10A @ 120VAC
 - Ballast and E-ballast: 10A @ 120/277VAC
- Contact Closure Terminals: NO and NC, 500mA max;
 24V and 24V Switched, 50mA max.
- Class 1 & 2 Dimming Output, 0-10V sinks up to 50mA per channel
- Connection to DLM Network: Wireless IPv6 Mesh
- Wireless Standards supported:
 - IPv6 Mesh (6LoWPAN / 802.15.4 / 2.4GHz), range up to 100 ft.
 - Bluetooth low energy (802.15.4 / 2.4GHz), range up to 30 ft.

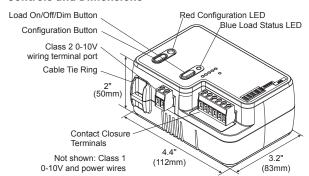
Controls and Dimensions

- Device Security: -Factory provisioned trusted hardware
- Wireless Encryption: AES 128-bit symmetric key
- Built-in Antenna: IPv6 Mesh and Bluetooth low energy
- DLM local network parameters:
- Up to 48 loads
 - Up to 48 communicating devices
- Operating conditions: for indoor use only; @120/277V: 32-131°F (0-55°C); 5-95% RH, non-condensing
- UL and cUL listed (E101196)
- FCC part 15 compliant
- Five year warranty

MOUNTING & CONTROLS

Mounting

Mount to 1/2" KO on a deep J-box



Contact Closure Functionality				
PIN (left to right)	Function			
Black	NO contact on Relay			
White	COM on Relay			
Red	NC contact on Relay			
Yellow	24V output supply			
Violet	Switched on Occupancy 24V (WRC blue wire)			
Gray	Ground			

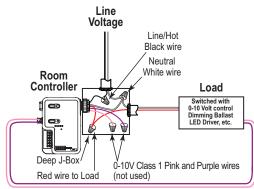
www.legrand.us/wattstopper _____ designed to be better.

WIRING

Class 1 Dimming Line Voltage Line/Hot Black wire Neutral White wire Controller Controller Switched with 0-10 Volt control Dimming Ballast LED Driver, etc. Deep J-Box Red wire to Load

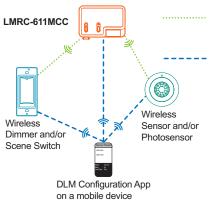
NOTE: Per UL, the 0-10V negative dimming wire color has been changed from gray to pink.

Class 2 Dimming



0-10V Class 2 Dimming control wires

WIRELESS CONNECTION



IPv6 Wireless communication between DLM Room devices over 6LoWPAN

Bluetooth low energy communication for **mobile App support**

Distance Recommendations:

30' maximum between LMRC-611MCC and mobile device 60' maximum between LMRC-611MCC and battery device 6" minimum and 100' maximum between any LMRC-6xx, LMPL-6xx load controller

ORDERING INFORMATION

Cata	ılog #	Description	Voltage	Total Rating
	LMRC-611MCC	1 Relay Wireless Room Controller, 0-10V dimming, with metering and contact closure	120/277VAC	10A ballast, E-ballast or incandescent

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27737r7 Rev 04/24

3