RF Dimming Module with 0–10 V- Control

Compatible with RA2 Select, RadioRA 2, and HomeWorks systems

The RF dimming module with 0–10 V- control is a radio frequency (RF) control that operates 0–10 V- controlled fluorescent ballasts or LED drivers based on input from RA2 Select, RadioRA 2, and HomeWorks systems.

- 0–10 V- control link automatically sources or sinks up to 60 mA to third-party fixtures.
- Switches line voltage up to 5 A.
- Configurable high- and low-end trim.
- Various operating voltages available — refer to Models chart below for details on voltage requirements.
- Utilizes Lutron Clear Connect RF technology — refer to Models chart below for frequency band data and Lutron system compatibility.
- RadioRA 2 or HomeWorks software required for system functionality.
- Mounts to an electrical junction box through a 1/2 in (21 mm) knockout opening.
- Complies with requirements for use in a compartment handling environmental air (plenum) per NEC® 2011 300.22(C)(3) (LMJ- model only).

Models

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Region</th>
<th>Operating Voltage</th>
<th>Frequency Band</th>
<th>Compatible Systems</th>
</tr>
</thead>
<tbody>
<tr>
<td>LMJ-5T-DV-B</td>
<td>U.S.A., Canada, Mexico</td>
<td>120/277 V~</td>
<td>434 MHz</td>
<td>RA2 Select, RadioRA 2, HomeWorks</td>
</tr>
<tr>
<td>LMK-5T-DV-B</td>
<td>Europe, U.A.E.</td>
<td>220–240 V~</td>
<td>868 MHz</td>
<td></td>
</tr>
<tr>
<td>LMM-5T-DV-B</td>
<td>China</td>
<td></td>
<td>868 MHz Limited</td>
<td></td>
</tr>
<tr>
<td>LMN-5T-DV-B</td>
<td>India</td>
<td></td>
<td>865 MHz</td>
<td></td>
</tr>
<tr>
<td>LMQ-5T-DV-B</td>
<td>Hong Kong, Israel</td>
<td></td>
<td>434 MHz Limited</td>
<td></td>
</tr>
</tbody>
</table>

NOTE: Contact Lutron for frequency band compatibility for your geographic region if it is not indicated above.
RF Dimming Module with 0–10 V−− Control

### Specification

<table>
<thead>
<tr>
<th><strong>Power</strong></th>
<th>120/277 V~ 50/60 Hz 5 A (LMJ- model) 220–240 V~ 50/60 Hz 5 A (LMK-, LMM-, LMN-, LMQ- models)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Typical Power Consumption</strong></td>
<td>&lt; 1.0 W</td>
</tr>
<tr>
<td><strong>Regulatory Approvals</strong></td>
<td>cULus®, UL 2043 Plenum Rated, FCC Approved. Complies with the limits for a Class B device, pursuant to Part 15 of the FCC rules: IC, NOM, ANATEL (LMJ- model) CE, TRA, CITC (LMK- model) WPC (LMN- model)</td>
</tr>
<tr>
<td><strong>Environment</strong></td>
<td>Ambient operating temperature: 32 °F to 104 °F (0 °C to 40 °C)</td>
</tr>
<tr>
<td></td>
<td>Ambient operating humidity: 0% to 90% humidity, non-condensing. Indoor use only.</td>
</tr>
<tr>
<td><strong>Communications</strong></td>
<td>Operates using Clear Connect RF technology for reliable wireless communication; refer to model number chart on page 1 for frequency band details. RF range is 30 ft (9 m) from repeaters. Contact Lutron for applications using foil-backed or metallic ceiling tiles.</td>
</tr>
<tr>
<td><strong>Load</strong></td>
<td>0–10 V−− Control Link Maximum Load: 60 mA, source or sink automatically configures. Control link compatible with ANSI E1.3 2001 (R2006), IEC 60929 Annex E.</td>
</tr>
<tr>
<td></td>
<td>Switched Maximum Load: 5 A lighting. No minimum load requirements. Load types include, but are not limited to: MLV, ELV, Incandescent, Magnetic fluorescent, Electronic fluorescent and LEDs.</td>
</tr>
<tr>
<td><strong>Surge Protection</strong></td>
<td>Tested to withstand surge voltages without damage or loss of operation, in accordance with IEEE C62.41-1991 Recommended Practice on Surge Voltages in Low-Voltage AC Power Circuits.</td>
</tr>
<tr>
<td><strong>Mounting</strong></td>
<td>Mounts to an electrical junction box through a 1/2 in (21 mm) knockout opening.</td>
</tr>
<tr>
<td><strong>Warranty</strong></td>
<td><a href="http://www.lutron.com/">www.lutron.com/TechnicalDocumentLibrary/Warranty.pdf</a></td>
</tr>
</tbody>
</table>
RF Dimming Module with 0–10 V Control

Dimensions

Dimensions are shown as: in (mm)

Dimensions for all models. Model LMJ-5T-DV-B shown.
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Wiring Schematics

LMJ- and LMQ- models:
Use the supplied conduit nut and wire the module as shown.

120 / 277 V~ 50 / 60 Hz (LMJ- model)
220–240 V~ 50 / 60 Hz (LMQ- model)

1/2 in (21 mm) Knockout Opening
Conduit Nut

Line / Hot
Neutral
Switched Hot
Neutral
To Fluorescent Ballasts / LED Drivers

0–10 V~ to Fluorescent Ballasts / LED Drivers

1 Some applications (in the U.S.A.) require the RF module to be installed inside an additional junction box. For information about how to perform this installation see Application Note #423 (P/N 048423) at www.lutron.com
Please consult all local and national electric codes for proper installation methods.

2 Use 18 AWG to 16 AWG (0.75 mm² to 1.5 mm²) solid wire only
RF Dimming Module with 0–10 V== Control

Wiring Schematics (continued)

LMK-, LMM-, and LMN- models:

220–240 V~ 50/60 Hz

1 RF module can be installed in a junction box or marshalling box. Please consult all local and national electric codes for proper installation methods.
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Communications

Wired and RF Configuration (RadioRA 2 and HomeWorks)

* In HomeWorks systems, use Hybrid Repeaters for range extension. In RadioRA 2, the repeater shown may be either a main repeater (1 required) or auxiliary repeater (up to 4 permitted).

RA2 Select RF Range

All devices must be located within 30 ft (9 m) of a repeater. The range can be extended with up to 4 Lutron wireless repeaters (Lx-REPPRO).