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# Vive In-Line Dimmers

The Vive in-line dimmers can control lighting both locally and remotely when paired with Pico wireless controls or Radio Powr Savr occupancy/vacancy sensors. This provides a system that is convenient and easy to install.

Vive in-line dimmers use Lutron robust Clear Connect RF technology which provides reliable, wireless communication with other Vive devices. Each load control can be controlled individually using a Pico wireless control. A Vive hub enables a simple setup process using a standard web browser on any Wi-Fi enabled phone, tablet, or computer. It also enables control and monitoring of all Vive devices. The Vive hub can be added at any time. System reprogramming will be required. For a complete list of features supported with the Vive hub, see specification submittals 369902, 3691044, and 3691044-04 at www.lutron.com

## Features

- The reverse-phase dimmer is trailing-edge capable of up to 250 W of incandescent/halogen/ELV loads and up to 1 A/150 W of LED.
- Receives wireless inputs from up to 10 occupancy sensors, 10 Pico wireless controls and 1 daylight sensor.
- To maximize energy savings and provide hands-free operation, load controls can be turned on/off automatically via Radio Powr Savr occupancy/vacancy sensors.
- Small size allows for simple retrofit installation.
- Easily scalable into a smart system by adding a Vive hub.
- Configurable high-end and low-end trim when paired with a Pico wireless control or Vive hub.

## Models

| Model Number | Region | Frequency Band |
|---|---|---|
| RMKS-250NE | UK, Europe | 868 MHz |
| RMMS-250NE | China | 868 Limited |
| RMQS-250NE | Hong Kong, Israel | 434 Limited |



| Job Name: | Model Numbers: | |
|---|---|---|
| | | |
| Job Number: | | |

# Specifications

### Regulatory Approvals

- CE (RMKS model only)
- IDMA (RMMS model only)

### Power and Ratings

- 220–240 V~ 50/60 Hz

### Typical Power Consumption

- < 0.5 W; Test conditions: Load and LED are off

### Environment

- Operating temperatures 0 °C to 40 °C (32 °F to 104 °F )
- Relative humidity: 0% to 90% non-condensing
- For indoor use only

### Communications

- Vive in-line dimmers communicate with the system through Radio Frequency (RF)
- Dimmer must be located within 18 m (60 ft) line-of-sight or 9 m (30 ft) through walls of a Pico wireless control, Radio Powr Savr sensor, or Vive hub
- System devices operate at frequencies of 868 MHz, 868 MHz Limited, or 434 MHz Limited

### ESD Protection

- Tested to withstand electrostatic discharge without damage or memory loss, in accordance with IEC 61000-4-2

### Surge Protection

- Tested to withstand surge voltages without damage or loss of operation, in accordance with IEEE C62.41-1991 Recommended Practice for Surge Voltages in Low-Voltage AC Power Circuits

### Power Failure

- **Power failure memory:** Should power be interrupted, the control will return to its previously set level prior to the interruption when power is restored

### Mounting

- Allow adequate space to ensure convective cooling of load control. Remove any insulation, heat generating equipment, or obstructions within 120 mm (4.75 in) of the load control
- For optimal RF performance, no metal or other electrically conductive material should be present within 120 mm (4.75 in) around the top and sides of the load control. The load control is not suitable for installation in places where it is fully enclosed in metal (e.g., metal enclosures, electrical cabinets) or within metal ceilings

### Metal Ceiling Tile Mounting

- Metal ceiling tile grids must have a greater than 3 mm (0.12 in) gap of non-metallic material which extends the entire length of the tile on at least one edge. This is often achieved by foam spacers that are used to prevent tile-to-tile rattling
- Metal ceiling tile grids which are continuous (with no gap) or those that are interlocked, must have a total surface area that is less than 81 $m^2$ (266 $ft^2$) for each section. The overall space can be larger as long as there are non-metallic sections bordering or intersecting the metal sections



| Job Name: | Model Numbers: | |
|---|---|---|
| | | |
| Job Number: | | |

## Specifications *(continued)*

### Wiring

- Vive in-line dimmers accept wire gauges between 0.5 $mm^2$ to 2.5 $mm^2$ (20 AWG to 14 AWG).
- **Note:** All outside wire diameters must be the same and must be between 5.2 mm to 8.5 mm (0.2 in to 0.33 in)

### Device Limits

- If dimmer is used in conjunction with a Vive hub, up to 700 devices are supported per Vive hub. Devices must be located within 22 m (71 ft) of the Vive hub.
- Any given load device can be controlled by 10 occupancy sensors, 10 Pico wireless controls and 1 daylight sensor.
- **Note:** Load controls have load type and capacity limits. For more information, see **Load Type and Capacity**



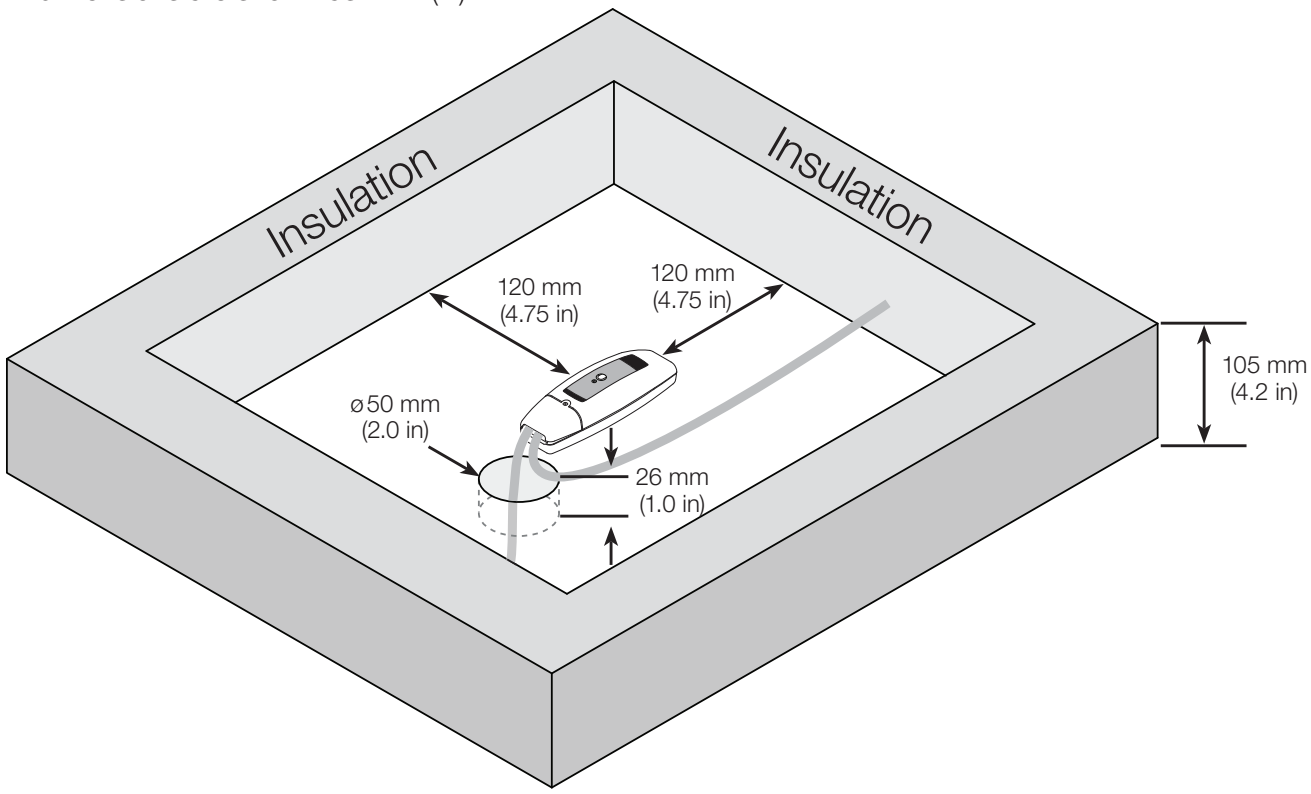
| Job Name: | Model Numbers: | |
|---|---|---|
| | | |
| Job Number: | | |

## Dimensions

All dimensions are shown as: mm (in)


## Mounting and Installation

All dimensions are shown as: mm (in)






| Job Name: | Model Numbers: | |
|---|---|---|
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| Job Number: | | |

## Load Type and Capacity

| Model | Voltage | Minimum Load | Load Types |
|---|---|---|---|
| RMKS-250NE<br>RMMS-250NE<br>RMQS-250NE | 220–240 V~<br>50/60 Hz | 1 W | 1 A 250 W – Incandescent, halogen, ELV<br>1 A 150 W – LED* |

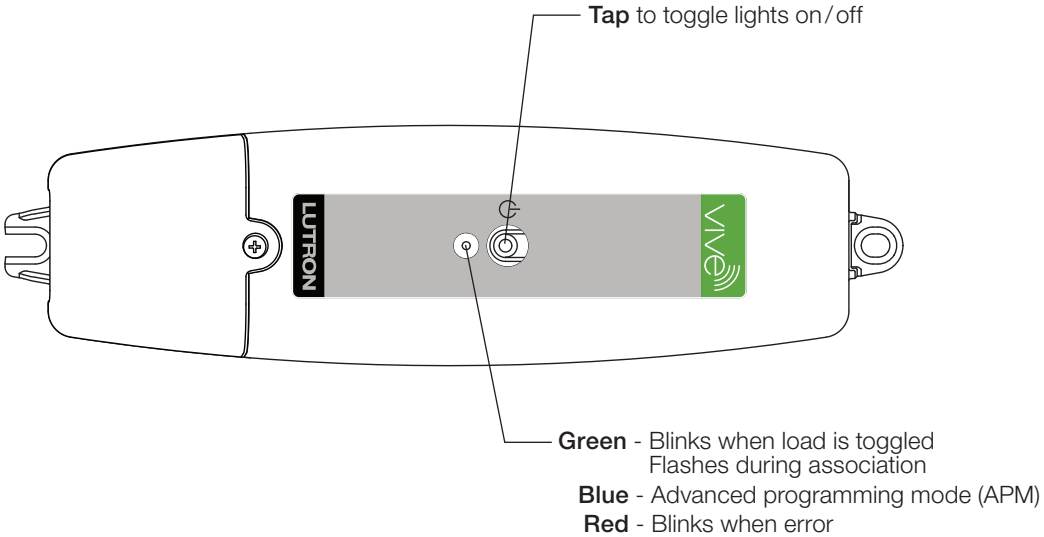
* LED rating is 1 A. If no current rating is specified, a power rating of 150 W can be used. Higher ratings (up to the incandescent rating) can be achieved for specific LED fixtures based on Lutron testing results. Refer to lutron.com/ledtool for compatibility testing results and the maximum number of LED fixtures. Using LED fixtures that are not tested can result in the fixtures not turning on or poor dimming quality. LED dimming performance can vary from fixture to fixture and cannot be guaranteed.

## Compatible Load Interfaces

Some local controls can be used to control load interfaces. Up to three load interfaces can be used with one control. See table below for a list of compatible load interfaces.

| Control | 0-10 V interface GRX-TVI |
|---|---|
| RMKS-250NE | ✓ |
| RMMS-250NE | ✓ |
| RMQS-250NE | ✓ |

## Operation






| Job Name: | Model Numbers: | |
|---|---|---|
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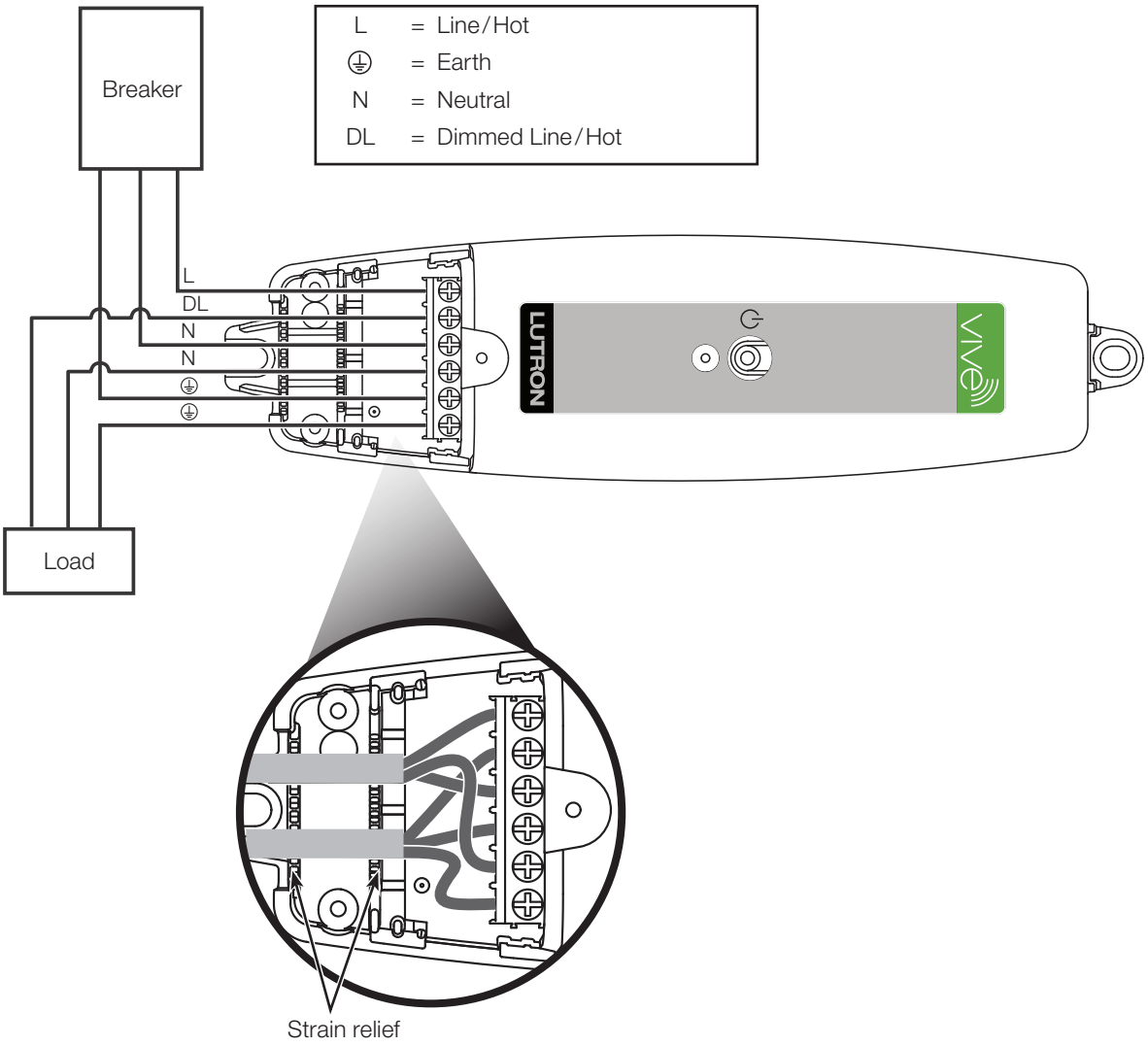
## Wiring




**Note:** All outside wire diameters must be the same and must be between 5.2 mm to 8.5 mm (0.2 in to 0.33 in)





| Job Name: | Model Numbers: | |
|---|---|---|
| | | |
| Job Number: | | |