#### 09.03.24

# RA2 Select In-Line Load Controls

The RA2 Select family of in-line dimmers, switches and fan controls can control lighting, motor, and fan loads 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.

RA2 Select in-line load controls use Lutron patented Clear Connect RF technology which provides reliable, wireless communication with other RA2 Select devices. Each load control can be controlled individually using a Pico wireless control. Using a RA2 Select main repeater allows devices to be part of a whole house solution that can be controlled remotely from anywhere in the world.

#### 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.
- The switch is rated for 6 AX of general purpose lighting load and 2 A/0.5 HP of motor load.
- The four-speed fan control is rated for a single AC ceiling fan up to 100 W.\*
- When powered on in an unaddressed state (not paired with a Pico remote control or activated in a system), the fan control will turn on the fan for two (2) minutes to allow the installer to verify that the device is installed and wired correctly.
- The four fan speed settings (low, medium, medium high, and high) can be adjusted to be faster or slower to optimize each for the specific ceiling fan that is being used. This feature is accessible in the device settings withinin the Lutron app.
- Allows remote control from anywhere in the space when paired with Pico wireless controls.
- When used with the RA2 Select main repeater, the load controls can be programmed via the Lutron App to incorporate lighting scenes and schedule daily events. Also, the load controls can be controlled from anywhere in the world.



Control Type	Model Number	Frequency	Country/ Region
Dimmer	RRK-R25NE-240	868 MHz	UK, Europe
Dimmer	RRM-R25NE-240	868 Limited	China
Dimmer	RRN-R25NE-240	865 MHz	India
Dimmer	RRQ-R25NE-240 434 Limited		Hong Kong, Israel
Switch	RRK-R6ANS-240	868 MHz	UK, Europe
Switch	RRM-R6ANS-240	868 Limited	China
Switch	RRN-R6ANS-240	865 MHz	India
Switch	RRQ-R6ANS-240	434 Limited	Hong Kong, Israel
Fan Control	RRN-RNFSQ-240	865 MHz	India

- 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.
- Remote device association allows for in-line controls to be added to a system without physically accessing product.

<sup>\*</sup> Use to control one AC ceiling fan. Not for use with DC motor fans, fans with integrated light control modules, fans with remote controls, or WI-FI only fans. Not for use with shaded-pole type motors (e.g., bathroom or kitchen exhaust-type fans).

## **Specifications**

Power	220-240 V∼ 50/60 Hz		
Typical Power Consumption	<i>Dimmer/Switch/Fan Control:</i> < 0.5 W Test conditions: Load and LED are off		
Regulatory Approvals	CE (RRK model only) IDMA (RRM model only) WPC (RRN model only)		
Environment	Ambient operating temperature: 0 °C to 40 °C (32 °F to 104 °F), 0% to 90% humidity, non-condensing. Indoor use only.		
Communications	RA2 Select in-line load controls communicate with the system through Radio Frequency (RF). They 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 RA2 Select repeater. System devices operate at 868 MHz, 868 MHz Limited, 865 MHz or 434 MHz Limited frequencies.		
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.		
Wiring	RA2 Select in-line controls accept wire gauges between $0.5 \text{ mm}^2$ to $2.5 \text{ mm}^2$ (20 AWG to 14 AWG).		
	Note: All outside wire diameters must be the same and must be between $5.2 \text{ mm} - 8.5 \text{ mm}$ (0.2 in - 0.3 in).		
Device Limits	Up to 100 devices (e.g., load controls, Pico wireless controls, Radio Powr Savr sensors, shades, and repeaters) are supported per system. The main repeater counts as one device and four locations are reserved for wireless repeaters.		
	Note: Load controls have load type and capacity limits. For more information, see Load Type and Capacity.		
Warranty	www.lutron.com/TechnicalDocumentLibrary/Intl_Warranty.pdf		



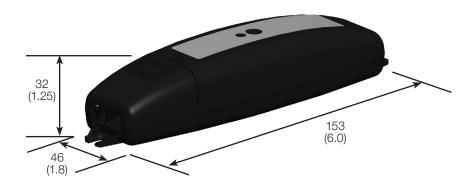
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# RA2 Select In-Line Load Controls

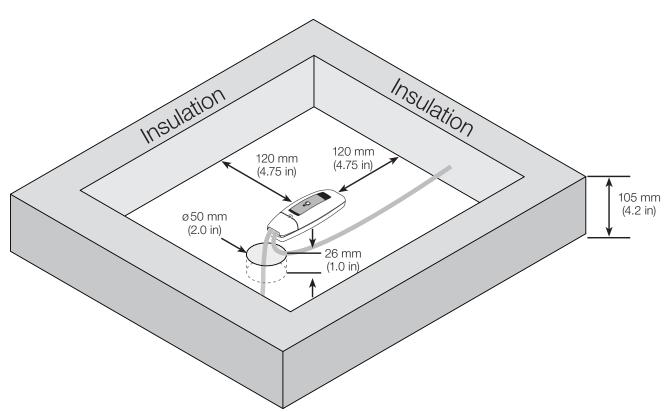
### Dimensions

All dimensions are shown as: mm (in)



## Mounting and Installation

All dimensions are shown as: mm (in)





## Load Type and Capacity

Model	Voltage	Load Types
RRK-R25NE-240 RRM-R25NE-240 RRN-R25NE-240 RRQ-R25NE-240	220-240 V~ 50/60 Hz	1 A 250 W – Incandescent, Halogen, ELV -∯- 12⊛ 1 A 150 W – LED* 🚳
RRK-R6ANS-240 RRM-R6ANS-240 RRN-R6ANS-240 RRQ-R6ANS-240		6 AX Lighting (all types) 🍘 -ᠿ वााा⊧ 고₂ 고୲୲∞ 2 A/0.5 HP Motor M
RRN-RNFSQ-240		100 W max. one (1) AC ceiling fan** 💥

\* 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.

\*\* Use to control one AC ceiling fan. Not for use with DC motor fans, fans with integrated light control modules, fans with remote controls, or Wi-Fi only fans. Not for use with shaded-pole type motors (e.g., bathroom or kitchen exhaust-type fans).

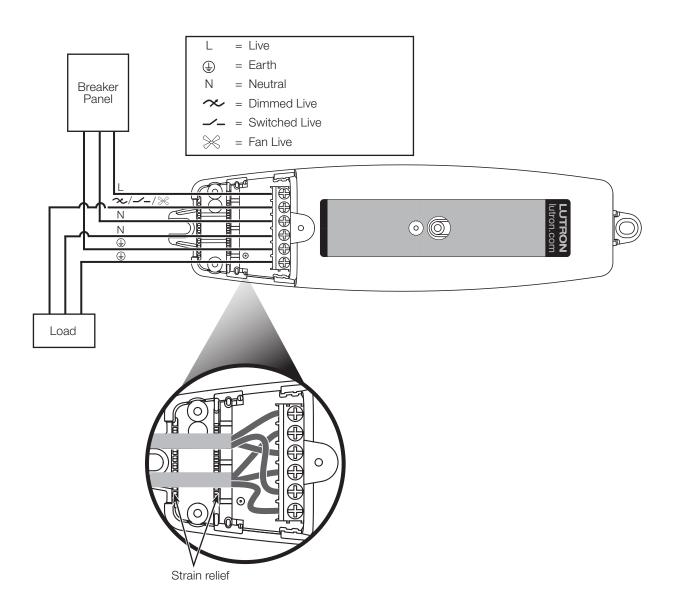


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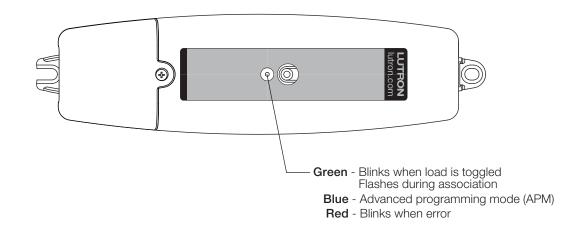
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### Wiring

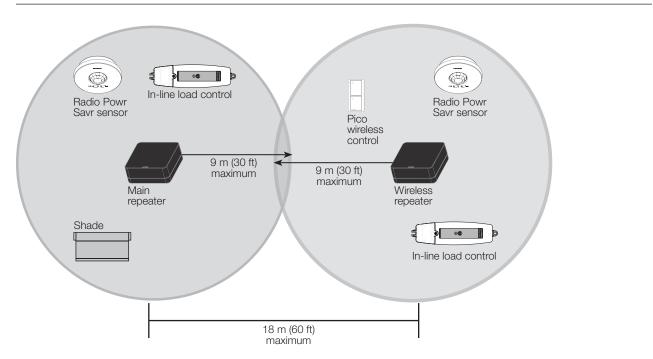




## Operation



### **RF** Range



All devices must be located within 9 m (30 ft) of a repeater. The range can be extended with up to four RA2 Select wireless repeaters ( $L\underline{x}$ -REPPRO).



**Model Numbers** 

RRX-RXXXX-240

Frequency/ Channel Code Device Type

#### Frequency/Channel Code

K = 868 MHzM = 868 MHz LimitedN = 865 MHzQ = 434 MHz Limited

#### **Device Type**

6ANS = Switch (Neutral Required) 25NE = Dimmer (Neutral Required) NFSQ = Fan Control (Neutral Required)

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