

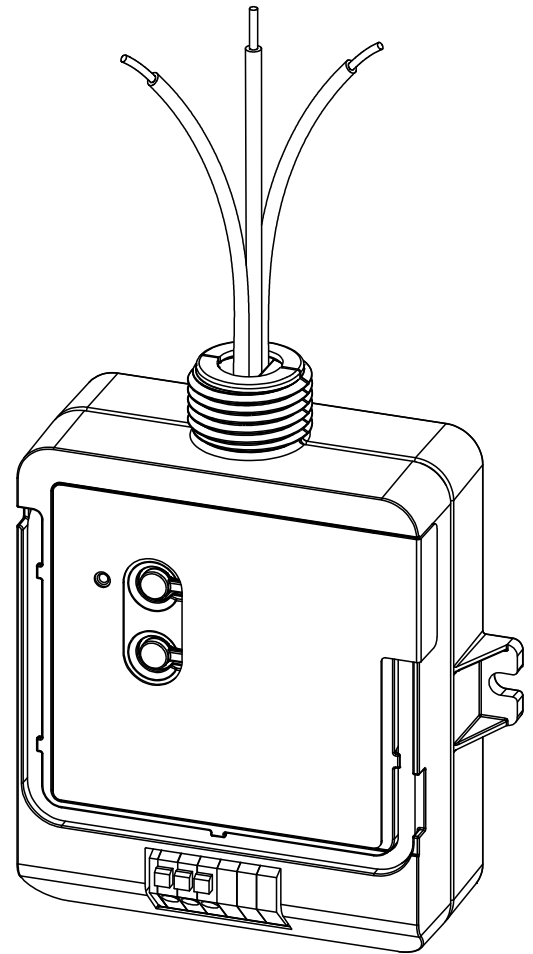
## PowPak™ Relay Module

The PowPak™ Relay Module is a radio frequency (RF) device capable of controlling up to 5 A of general-purpose load based on input from Pico® controls and Radio Powr Savr™ occupancy and daylight sensors. An optional, low-voltage dry contact closure output is available to communicate occupancy status to 3rd-party systems such as HVAC controllers.

Communication with RF input devices, such as Pico® controls and Radio Powr Savr™ sensors, is accomplished using Lutron Clear Connect™ RF Technology.

### Features

- Capable of switching 5 A of general-purpose loads
- Optional low-voltage dry contact closure output provides integration to building management systems, HVAC, VAV, etc.
- Various operating voltages available—refer to model number chart below for details on voltage requirements
- Receives wireless inputs from up to nine Pico® controls, six Radio Powr Savr™ occupancy/vacancy sensors, and one Radio Powr Savr™ daylight sensor
- Utilizes Lutron Clear Connect™ RF Technology – refer to model number chart below for frequency band data
- Mounts to a junction box through a standard half-inch (NPT trade size) knockout
- Complies with requirements for use in a compartment handling environmental air (plenum) per NEC® 2011 300.22(C)(3)



Description	Model Number	Operating Voltage	Frequency Band	Region
PowPak™ Relay Module	RMJ-5R-DV-B	120/277 V~	431.0 – 437.0 MHz	U.S.A., Canada, Mexico
	RMQ-5R-DV-B	220 -240 V~	433.05 – 434.79 MHz	Hong Kong
PowPak™ Relay Module with Occupancy-Status CCO	RMJ-5RCCO1-DV-B	120/277 V~	431.0 – 437.0 MHz	U.S.A., Canada, Mexico
	RMQ-5RCCO1-DV-B	220 -240 V~	433.05 – 434.79 MHz	Hong Kong

**Note:** Contact Lutron for frequency band compatibility for your geographic region if it is not indicated above.

Job Name:	Model Numbers:
Job Number:	

## Specifications

### Regulatory Approvals

#### RMJ- models only

- UL Listed
- UL 2043 Plenum Rated
- FCC approved. Complies with the limits for a Class B device, pursuant to Part 15 of the FCC rules.
- CSA and IC
- COFETEL
- NOM (expected Q1 2012)

### Power

- Operating voltage:  
**RMJ- models** 120/277 V~ 50/60 Hz  
**RMQ- models** 220-240 V~ 50/60 Hz

### System Communication

- 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 (10 m)

### Environment

- Ambient operating temperature: 32 °F to 131 °F (0 °C to 55 °C)
- 0% to 90% humidity, non-condensing
- For indoor use only

### Load

- Maximum load: 5 A general purpose. No minimum load requirements.
- Load types include (but are not limited to):
  - Incandescent
  - MLV
  - ELV
  - Resistive
  - Inductive
  - Magnetic fluorescent
  - Electronic fluorescent
- Motor rating:  
**RMJ- models** 1/6 HP (120 V~), 1/3 HP (277 V~)  
**RMQ- models** 1/2 HP (220-240 V~)
- Load relay is non-latching

### Key Design Features

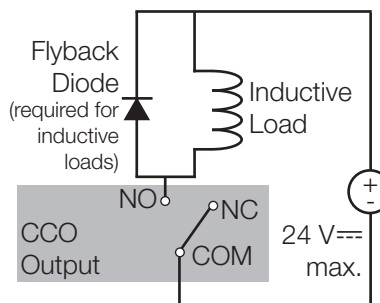
- LED status indicator shows current load status and provides programming feedback
- Power failure memory: If power is interrupted, connected loads will return to the previous level prior to interruption
- Daylighting can be overridden by pressing the ON button on any associated Pico®
  - Daylighting will be re-enabled after 2 hours or after the area becomes unoccupied

### Contact Closure Output (CCO version only)

- Provides occupancy status to 3rd-party equipment such as building management systems, HVAC, and VAV controllers
- Provides both normally open (NO) and normally closed (NC) dry contacts
- Maintained output type
- CCO terminals accept 20 to 16 AWG (0.5 to 1.5 mm<sup>2</sup>) solid or stranded wire
- Output is latching
- Not for voltages greater than 24 V

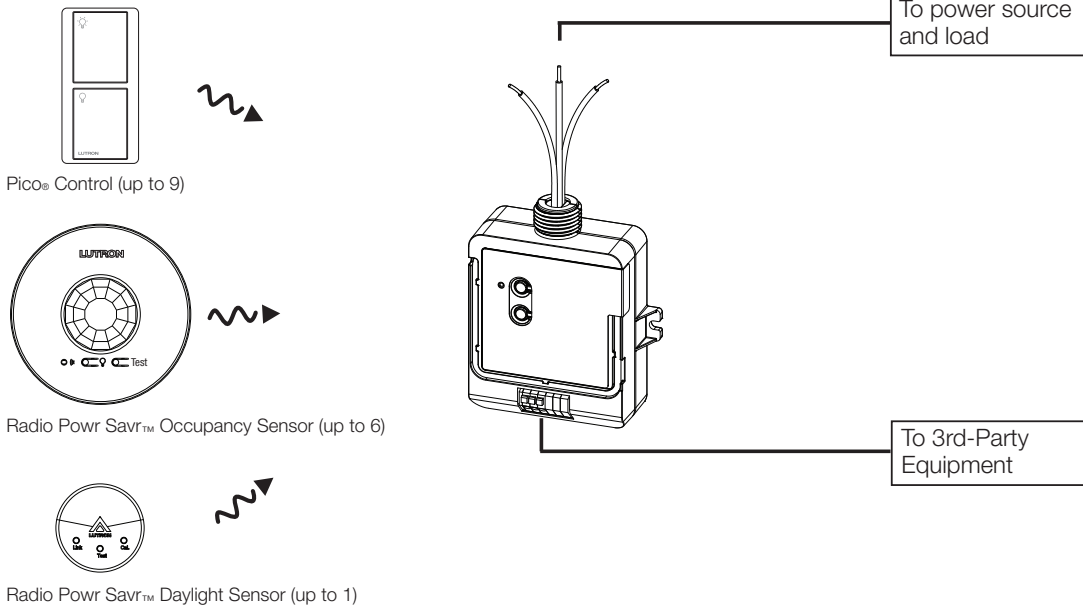
Switching Voltage	Resistive Load $I_R$
0-24 V==	1.0 A
0-24 V~	0.5 A

- The CCO is not rated to control unclamped, inductive loads. Inductive loads include, but are not limited to, relays, solenoids, and motors. To control these types of equipment, a flyback diode must be used (DC voltages only). See diagram below. For more information, please see Application Note # 434 (p/n 048434).

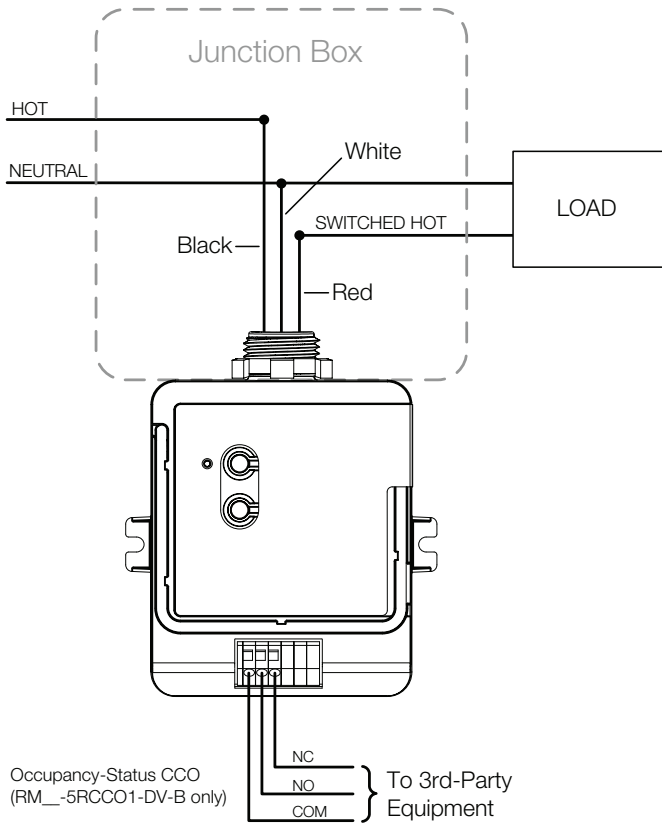


<b>Job Name:</b>	<b>Model Numbers:</b>
<b>Job Number:</b>	

### System Diagram

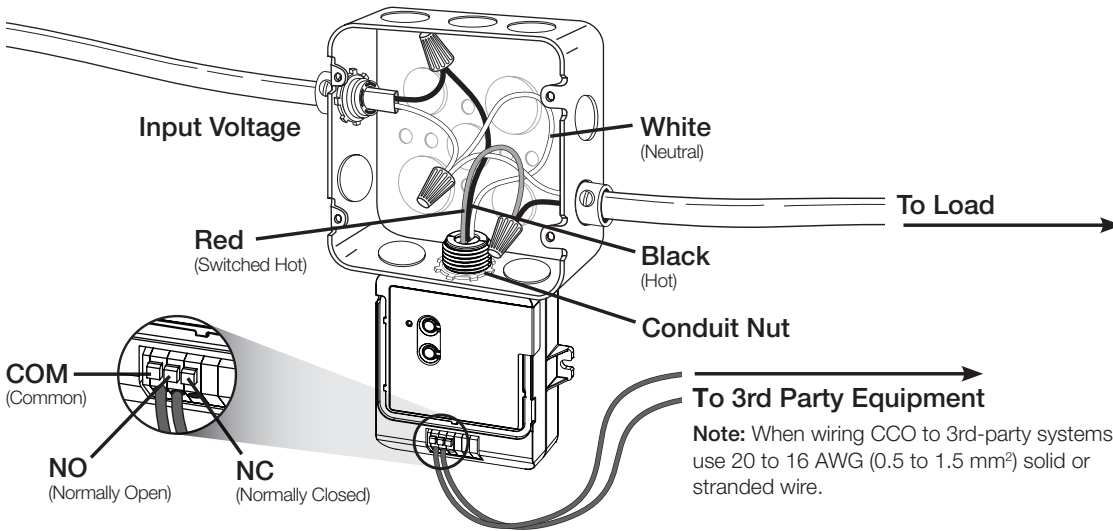


### Wiring Diagram



Job Name:	Model Numbers:
Job Number:	

# Wiring Diagram

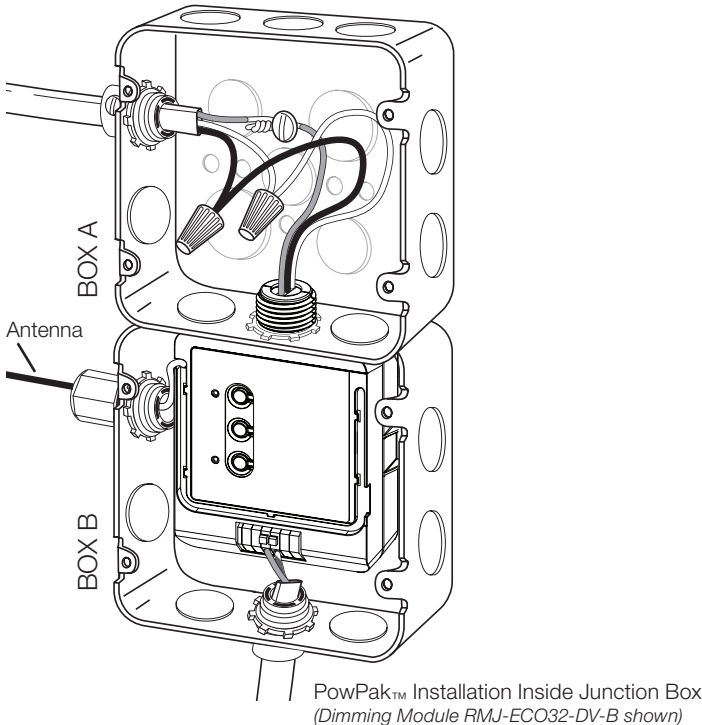


CCO operation affected only by associated occupancy or vacancy sensors.

**Room Occupied:** NO = Close NC = Open

**Room Unoccupied:** NO = Open NC = Close

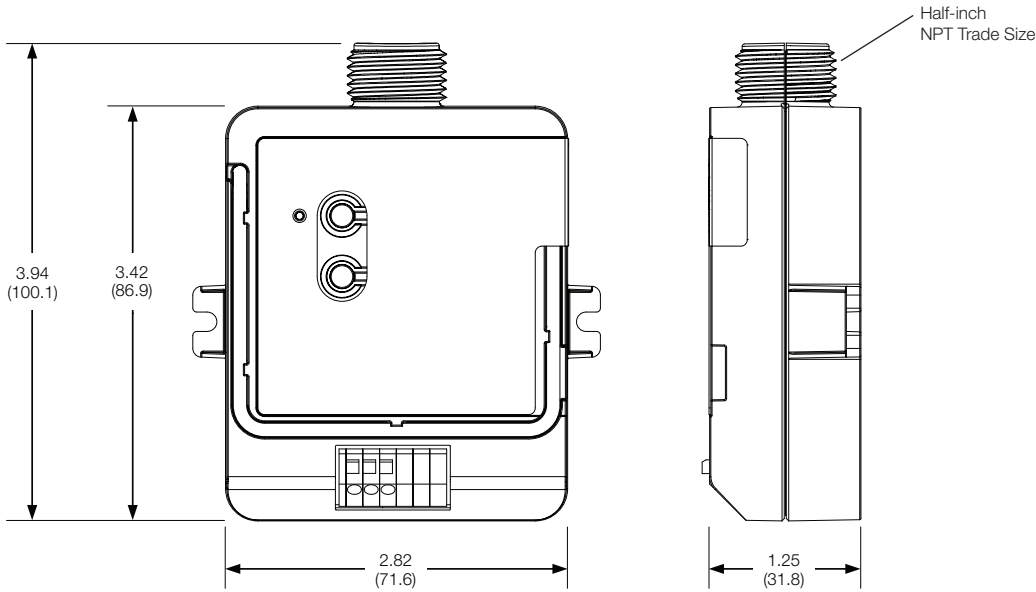
In some applications, a PowPak™ module can be installed inside a 4 in x 4 in (102 mm x 102 mm) junction box. For information about how to perform this installation, please see Application Note #423 (p/n 048423).



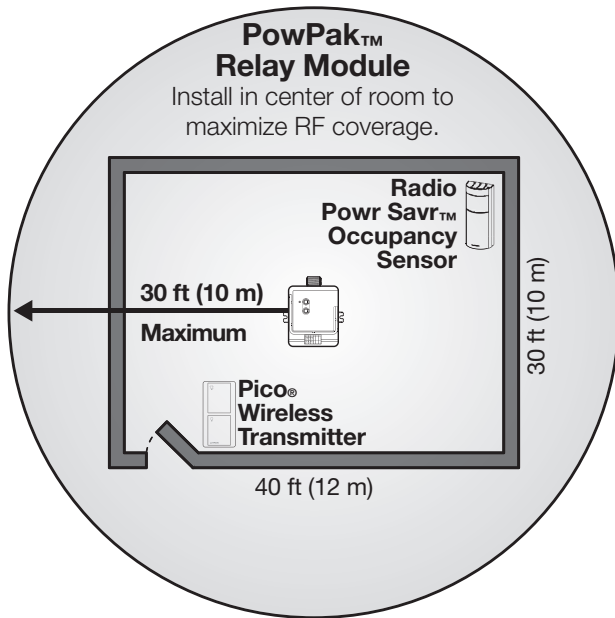
Job Name:	Model Numbers:
Job Number:	

### Dimensions

Dimensions are shown as: in (mm)



### Range Diagram



All Wireless Transmitters must be installed within 30 ft (10 m) of the PowPak™ Relay Module.

- Contact Lutron first for applications using foil-backed or metallic ceiling tiles.

Job Name:	Model Numbers:
Job Number:	

## Default Operation

Transmitting Device	Transmitted Command	Load Relay Default Action	CCO Default Action
Pico®	On	Close	No Action
	Off	Open	No Action
	Raise	No Action	No Action
	Lower	No Action	No Action
	Preset	Close	No Action
Radio Powr Savr™ Occupancy Sensor	Occupied	Close	NO = Close, NC = Open
	Unoccupied	Open	NO = Open, NC = Close
Radio Powr Savr™ Vacancy Sensor	Occupied	No Action	NO = Close, NC = Open
	Unoccupied	Open	NO = Open, NC = Close
Radio Powr Savr™ Daylight Sensor	Ambient Light Below Target Level	Close	No Action
	Ambient Light Above Target Level	Open	No Action

<b>Job Name:</b>	<b>Model Numbers:</b>
<b>Job Number:</b>	