

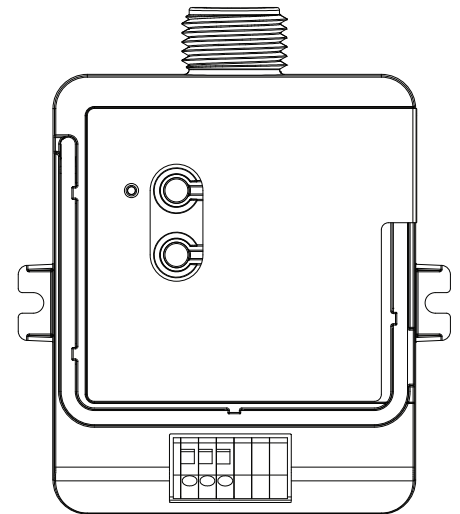
PowPak® Relay Module with Softswitch®

The PowPak® Relay Module with Softswitch® is a radio-frequency (RF) device that uses Lutron patented Softswitch® technology to control general-purpose loads 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 (RMJ-, URMJ-, RMQ-, RMM-, RMP- models only).

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

Features

- Softswitch®: Lutron® patented technology prevents arcing of relay contacts, extending product lifetime
- Various operating voltages available— refer to model number chart below for details on voltage requirements
- Capable of switching general-purpose loads
- Optional low-voltage dry contact closure output provides integration to building management systems, HVAC, VAV, etc. (RMJ-, URMJ-, RMQ-, RMM-, RMP- models only)
- 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 U.S. style junction box through a standard size knockout
- Complies with requirements for use in a compartment handling environmental air (plenum) per NEC® 2011 300.22(C)(3) (RMJ- and URMJ- models only)



RMJ-16RCCO1-DV-B model shown

Job Name: Job Number:	Model Numbers:
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Model Numbers

Description	Model Number	Region	Operating Voltage	Frequency Band
PowPak® Relay Module with Softswitch®	RMJ-16R-DV-B	U.S.A., Canada, Mexico	120/277 V~	431.0 – 437.0 MHz
	RMJ-5R-DV-B	U.S.A., Canada, Mexico	120/277 V~	431.0 – 437.0 MHz
	URMJ-16R-DVB	U.S.A. (BAA Compliant)	120/277 V~	431.0 – 437.0 MHz
	RMQ-16R-DV-B	Hong Kong	220-240 V~	433.05 – 434.79 MHz
	RMQ-5R-DV-B	Hong Kong	220-240 V~	433.05 – 434.79 MHz
	RMM-16R-DV-B	China and Singapore	220-240 V~	868.125 – 868.475 MHz
	RMM-5R-DV-B	China and Singapore	220-240 V~	868.125 – 868.475 MHz
	RMK-16R-DV-B	Europe, U.A.E.	220-240 V~	868.125 – 869.850 MHz
	RMK-5R-DV-B	Europe, U.A.E.	220-240 V~	868.125 – 869.850 MHz
	RMN-16R-DV-B	India	220-240 V~	865.5 – 866.5 MHz
	RMN-5R-DV-B	India	220-240 V~	865.5 – 866.5 MHz
	RMP-16R-JA-B	Japan	100 V~	312.3 – 314.8 MHz
	RMP-5R-JA-B	Japan	100/200 V~	312.3 – 314.8 MHz
PowPak® Relay Module with Softswitch® and Occupancy-Status CCO	RMJ-16RCCO1-DV-B	U.S.A., Canada, Mexico	120/277 V~	431.0 – 437.0 MHz
	RMJ-5RCCO1-DV-B	U.S.A., Canada, Mexico	120/277 V~	431.0 – 437.0 MHz
	URMJ-16RCCO1-DVB	U.S.A. (BAA Compliant)	120/277 V~	431.0 – 437.0 MHz
	RMQ-16RCCO1-DV-B	Hong Kong	220-240 V~	433.05 – 434.79 MHz
	RMQ-5RCCO1-DV-B	Hong Kong	220-240 V~	433.05 – 434.79 MHz
	RMM-16RCCO1-DV-B	China and Singapore	220-240 V~	868.125 – 868.475 MHz
	RMM-5RCCO1-DV-B	China and Singapore	220-240 V~	868.125 – 868.475 MHz
	RMP-16RCCO1-JA-B	Japan	100 V~	312.3 – 314.8 MHz

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/URMJ models

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

RMN- models

- WPC Type Approved (India)

RMK- models

- CE (European Union)
- TRA Type Approved (United Arab Emirates)

RMP- models

- PSE Certified (Japan): RMP-16R-JA-B, RMP-16RCC01-JA-B
- JET Certified (Japan): RMP-5R-JA-B

Power

- Operating voltage:
RMJ-, URMJ- models: 120/277 V~ 50/60 Hz
RMQ-, RMM-, RMK-, RMN- models: 220-240 V~ 50/60 Hz
RMP- models: 100 V~ 50/60 Hz, 100/200 V~ 50/60 Hz (RMP-5R only)
- Standby Power Consumption (all models): < 1.0 W

System Communication

- Operates using Clear Connect® RF Technology for reliable wireless communication; refer to model number chart on page 1 for band frequency details
- RF range is 30 ft (9 m) for RMJ-, URMJ-, RMQ-, RMM-, RMK-, RMN- models
- RF range is 23 ft (7 m) for RMP- models
- Contact Lutron first for applications using foil-backed or metallic ceiling tiles.

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

- **-16R models:** 16 A; **-5R models:** 5 A;
RMX-16R models: No minimum load requirements.
- Load types include (but are not limited to): Incandescent, MLV, ELV, Resistive, Inductive, Magnetic fluorescent, Electronic fluorescent
- Motor rating:
RMJ-16R-, URMJ-16R- models: 1/2 HP (120 V~), 1½ HP (277 V~)
RMJ-5R-, URMJ-5R- models: 1/6 HP (120 V~), 1/3 HP (277 V~)
RMM-16R-, RMN-16R-, RMQ-16R- models: 1½ HP (220-240 V~)
RMM-5R-, RMN-5R-, RMQ-5R- models: 1/2 HP (220-240 V~)
RMK-16R- models: 6 A (220-240 V~)
RMP-16R-JA-B, RMP-16RCC01-JA-B models: 1000 W

Softswitch®

- Patented Softswitch® circuit eliminates relay arcing at mechanical contacts
- Extends relay life to an average of 1 million cycles
- Output is non-latching

Key Design Features

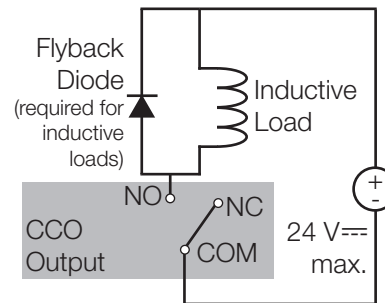
- LED status indicator shows current load status and provides programming feedback
- Power failure memory: If power is interrupted, connected loads will return to the previous level prior to interruption
- Daylighting can be overridden by pressing the ON button on any associated Pico®
 – Daylighting 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 mm²) solid or stranded wire
- Output is latching

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

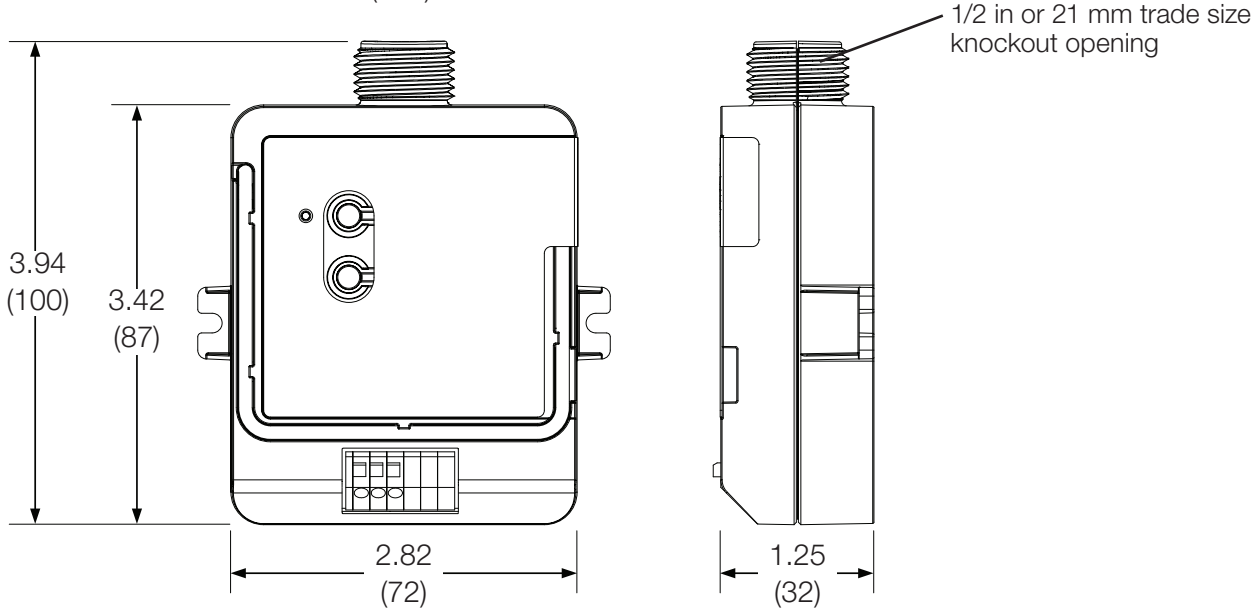
- Not for voltages greater than 24 V
- The CCO is not rated to control unclamped, inductive loads. Inductive loads include, but are not limited to, relays, solenoids, and motors. To control these types of equipment, a flyback diode must be used (DC voltages only). See diagram below. For more information, please see Application Note #434 (p/n 048434).



Job Name:	Model Numbers:
Job Number:	

Dimensions

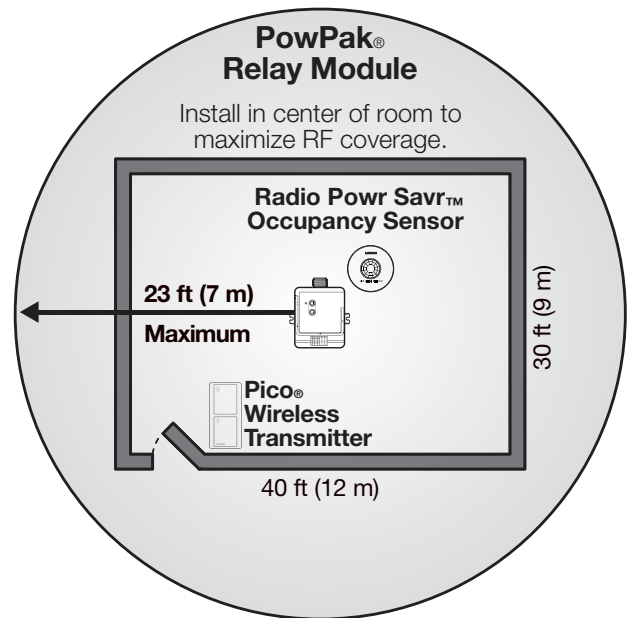
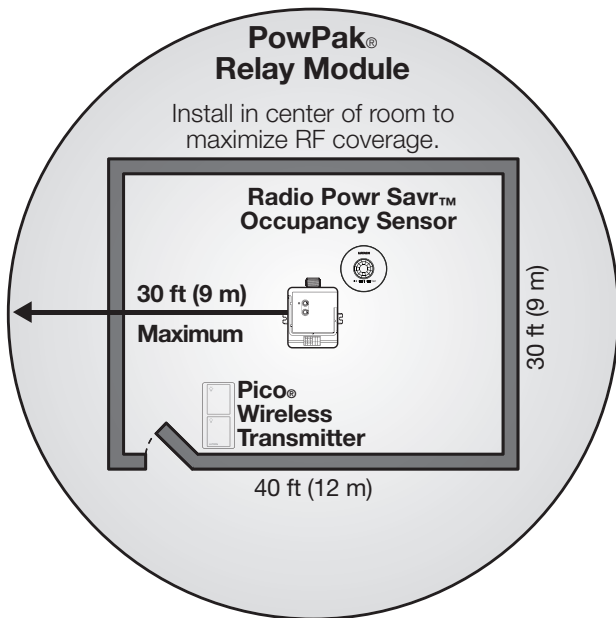
Dimensions are shown as: in (mm)



Range Diagrams

RMJ-, URMJ-, RMQ-, RMM-, RMK-, RMN- models

RMP- models



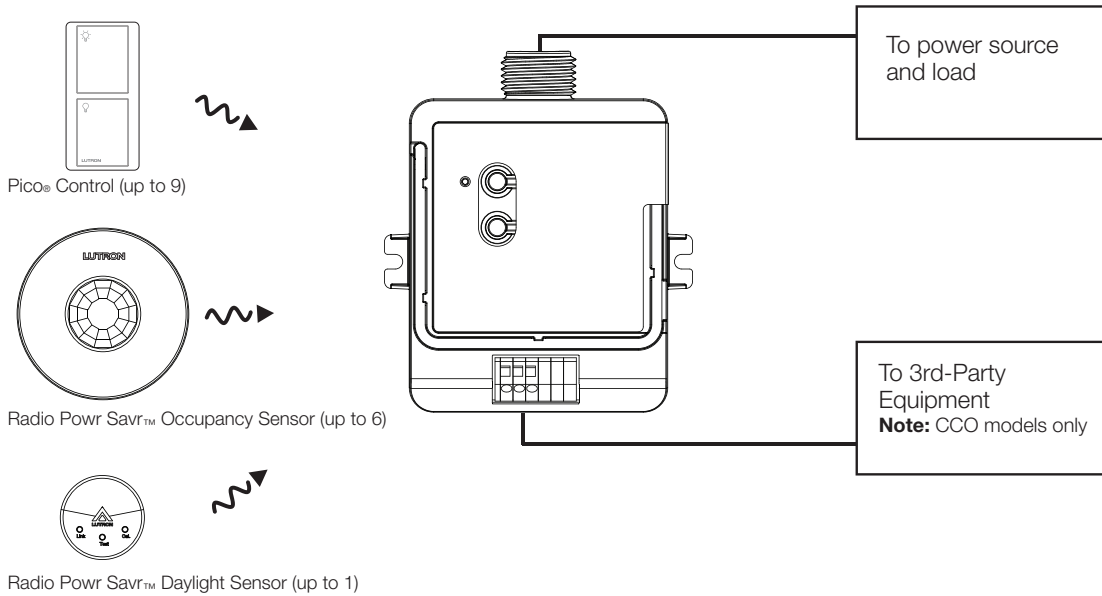
All Wireless Transmitters must be installed within 30 ft (9 m) of the PowPak™ Relay Module.

All Wireless Transmitters must be installed within 23 ft (7 m) of the PowPak™ Relay Module.

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

Job Name:	Model Numbers:
Job Number:	

System Diagram



Default Operation

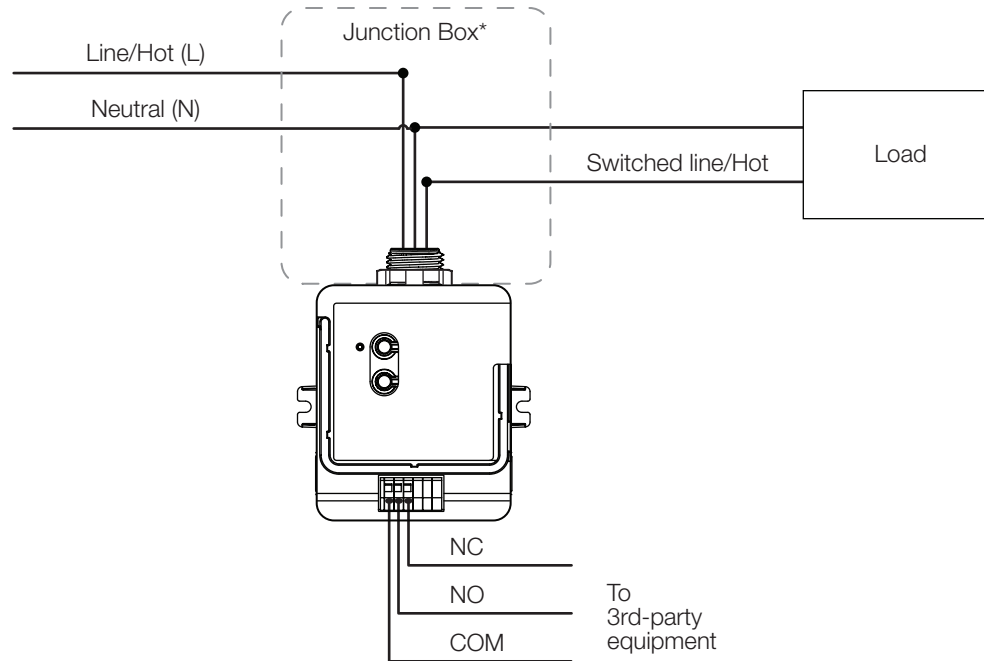
Transmitting Device	Transmitted Command	Softswitch® Relay Default Action	CCO Default Action ¹
Pico® Wireless Control	On	Close	No Action
	Off	Open	No Action
	Raise	No Action	No Action
	Lower	No Action	No Action
	Preset	Close	No Action
Radio Powr Savr™ Occupancy Sensor	Occupied	Close	NO = Close, NC = Open
	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

NOTES:

¹ CCO models only.

Job Name:	Model Numbers:
Job Number:	

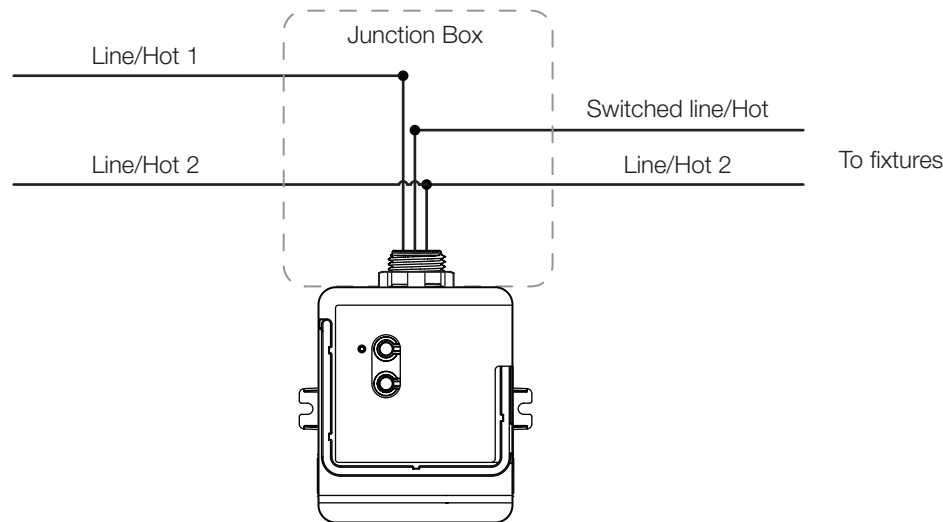
Wiring Diagram (RMJ-, URMJ-, RMQ-, RMM-, RMN-, RMP-, RMK- models)



* **NOTE:** Some applications (in USA) require the PowPak® module to be installed inside an additional junction box. For information about how to perform this installation, please visit www.lutron.com, Application Note #423 (P/N 048423). Please consult all local and national electric codes for proper installation methods.

Occupancy Status CCO (RMJ-, URMJ-, RMQ-, RMM-, RMP-, models only)

Wiring Diagram (RMP-5R-JA-B) (200 V~)



Job Name:	Model Numbers:
Job Number:	