

OSP/OSA Power Pack Series

Provides low voltage power and line voltage control for Leviton Occupancy Sensors



DESCRIPTION

Containing both a 24VDC supply and a 20A line voltage relay for most models of occupancy sensors, the Leviton Compact Power Pack provides low voltage power and line voltage control for Leviton occupancy sensors. Versions include Auto-ON and Manual-ON inputs for occupancy sensors, Hold-ON and Hold-OFF capabilities and a local input for momentary or maintained dry contact switches.

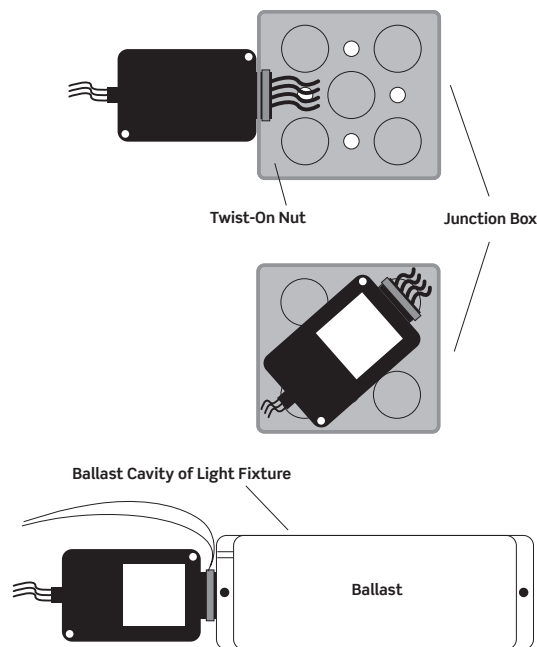
The internal relay can control up to 20A for 120, 230, 277VAC or 347VAC ballast loads and 120VAC incandescent loads. The OSP Power Pack Series is also used to supply power to the OSA Add-A-Relay model. The power pack conveniently mounts in a knockout hole of a standard junction box. The unit can be placed inside or outside the junction box with a simple twist-on nut.

APPLICATIONS

Use a Leviton Power Pack with Leviton occupancy sensors in the following applications:

- Anywhere optimal lighting and energy savings are desired
- Load shed/interface hold-OFF applications
- Retail hold-ON/bypass applications
- OSP20-RDH Applications
 - Bi-level or A/B lighting
 - Shared emergency lighting
 - Inexpensive 3-way switching
- OSA20 Applications
 - Expanding circuit switching capacity
 - Cost-conscious mixed voltage solutions

EASY MOUNTING



PRODUCT DATA

FEATURES

OSP15-R30

- Self-contained transformer and relay
- Internal voltage regulator—regulated 24VDC current, 150mA output
- Fast installation—mounts inside or outside of a junction box, or inside a fluorescent ballast cavity with a simple twist-on nut
- Single or multiple luminaire control
- Zero-crossing circuitry
- UL 2043 Plenum Rated
- Companion Add-A-Relay provides additional capacity (OSA20-R00)
- NAFTA compliant
- Dry contact relay for combined sensor control of lighting and heating/air conditioning
- Dry contact for designing controlled closure
- Form A relay for interface to BAS/BMS

OSP20-RDH

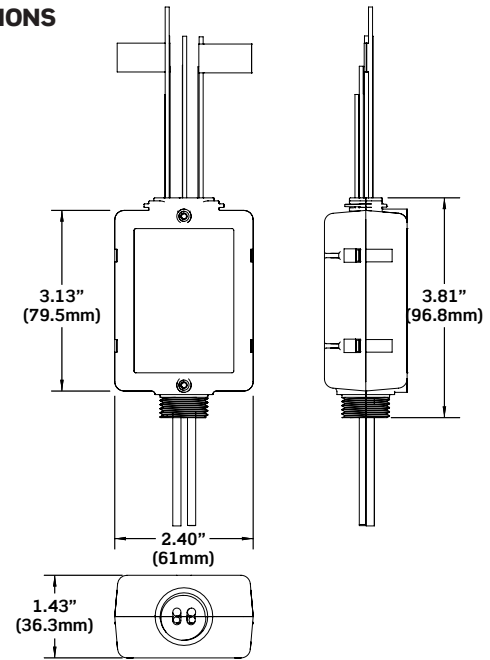
Includes the same features as the OSP15-R30 plus:

- Auto-ON and manual-ON inputs for occupancy sensors
- Hold-ON input—when activated, unit is always ON regardless of any other input
- Hold-OFF input—when activated, unit is always OFF regardless of any other input
- Local inputs for momentary or maintained dry contact low voltage switching
- Robust mechanical batching relay designed to perform as a Form C normally closed device
- Increased power supply output to 255mA
- Upon loss of power, latching relay maintains current state (closed or open)
- H.I.S. >(High In-rush Stability)
- Heavy-duty zero-crossing circuitry
- Robust mechanical latching relay

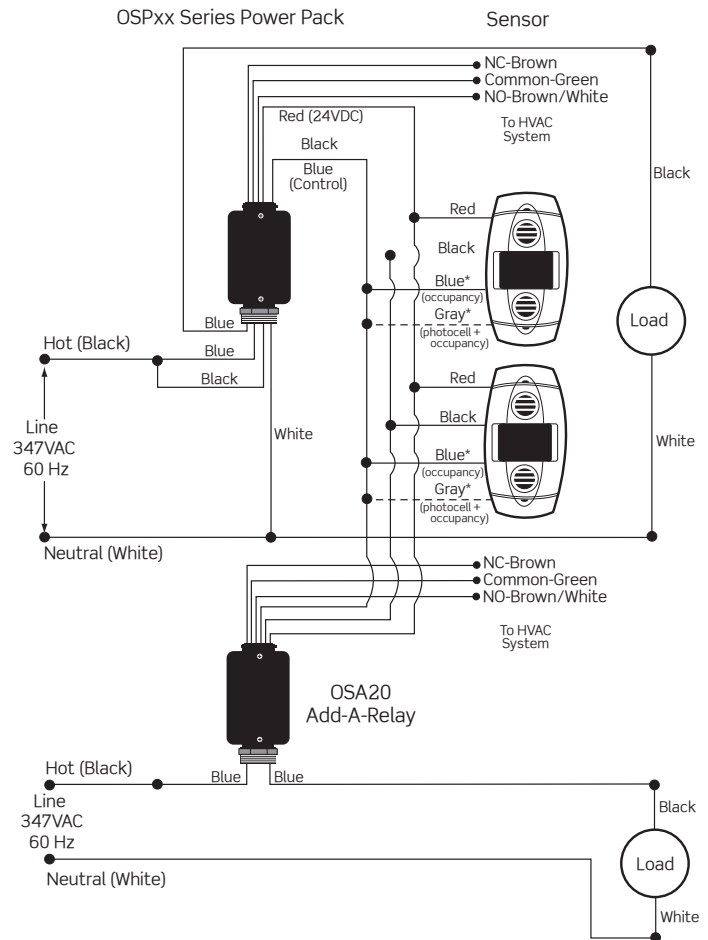
OSA20-R00

- 15A relay can be added to any OSP20 power pack for flexible design
- Provides cost-conscious design flexibility
- Inexpensive solution for mixed voltage lighting design
- Used for expanding circuit switching capacity
- Use OSP20 power packs for emergency lighting circuits and OSA20 Add-A-Relays for inexpensive control of normal lighting

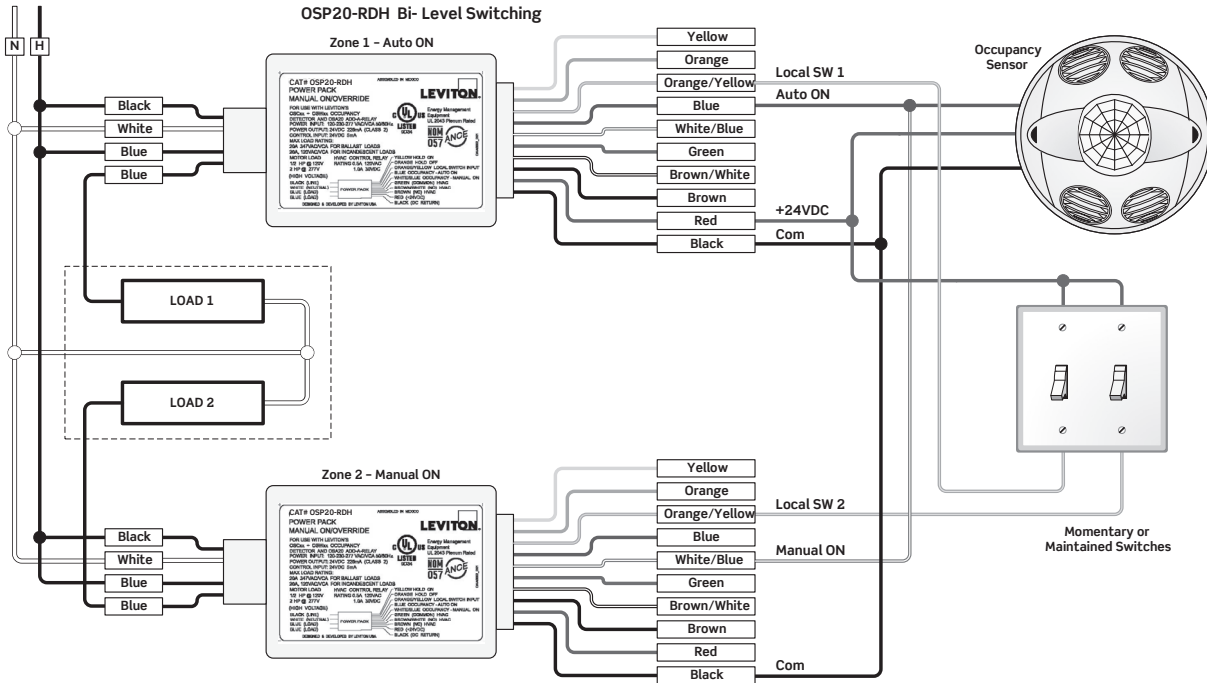
DIMENSIONS



WIRING DIAGRAM



OSP20 RDH BI-LEVEL SWITCHING



WIRING DESIGNATIONS

| SIGNAL TYPE | COLOR | GAUGE |
|---------------------------------|---------------|-------|
| LINE VOLTAGE WIRES | | |
| Line 120-230-277VAC (OSP20-RDH) | Black | 18AWG |
| Neutral | White | 18AWG |
| Load | Blue | 14AWG |
| Load | Blue | 14AWG |
| CLASS 2 WIRES | | |
| Power (24VDC) | Red | 22AWG |
| DC Return | Black | 22AWG |
| Occupancy Auto-ON | Blue | 22AWG |
| Occupancy Manual-ON | Blue/White | 22AWG |
| Hold-ON | Yellow | 22AWG |
| Hold-OFF | Orange | 22AWG |
| Local Switch Input | Yellow/Orange | 22AWG |

| SIGNAL TYPE | COLOR | GAUGE |
|----------------------------------|-------------|-------|
| HVAC WIRES | | |
| Dry Contact Common | Green | 22AWG |
| Dry Contact NO (Normally Open) | Brown/White | 22AWG |
| Dry Contact NC (Normally Closed) | Brown | 22AWG |

- All wires rated at 221°F (105°C), 600V insulation
- Class 2 wires are Teflon jacketed, for plenum applications
- Dry contact wiring is Class 1 and Class 2 rated

POWER PACK CAPACITY FORMULA

Leviton power packs can be used to provide power to one or more occupancy sensors. Since current consumptions of occupancy sensors may vary, the best way to ensure you order the correct number of power packs and add-a-relays is by using this formula:

$$\begin{array}{|c|} \hline \# \text{ of sensor} \\ \text{Model As} \\ \hline \times \\ \hline \text{Sensor A current} \\ \text{consumption rating} \\ \hline \end{array} + \begin{array}{|c|} \hline \# \text{ of sensor} \\ \text{Model Bs} \\ \hline \times \\ \hline \text{Sensor B current} \\ \text{consumption rating} \\ \hline \end{array} + \begin{array}{|c|} \hline \# \text{ of Add a} \\ \text{Relays} \\ \hline \times \\ \hline 50\text{mA} \\ \hline \end{array} < 225\text{mA per power pack}$$

| DESCRIPTION | CURRENT CONSUMPTION |
|---|---------------------|
| OSC04-I, OSC15-I, OSWHB-I, OSWLR-I, OSWVV-I | 10-15mA |
| OSC05-M, OSC05-U, OSW12-U | 25mA |
| OSC10-M, OSC10-U | 35mA |
| OSC20-M, OSC20-U | 30mA |
| OSA20-R Add-a-Relay | 50mA |
| ODC0P-S0W Switching Photocell | 10mA |

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SPECIFICATIONS

| ELECTRICAL | |
|------------------------------------|---|
| Line Voltage | 120-230-277 VAC |
| Relay Rating | HVAC Relay: 0.5A @ 120VAC, 1.0A @ 30VDC |
| ENVIRONMENTAL | |
| Operating Temperature Range | 32 to 104°F (0 to 40°C) |
| Relative Humidity | 0-90% non-condensing, for indoor use only |
| OTHER | |
| Construction | Case: High impact, UL rated plastic Relay: Class B (130°C) insulating material; silver alloy contacts Wire: 6" leads, 18AWG input; LV connections: 7" leads 22AWG |
| Dimensions | 2.400"H x 3.811"W x 1.432"D (60.96mm x 96.80mm x 36.37mm) |
| Listings | UL/CUL Listed, FCC Certified, NOM Certified, meets energy code requirements for ASHRAE Standard 90.1 |
| Color | Black |
| Warranty | Limited five-year warranty |

ORDERING INFORMATION

| DESCRIPTION | CAT. NO. | POWER INPUT | RELAY RATING | CONTROL INPUT | POWER SUPPLY OUTPUT |
|---|-----------------|--------------------------|---|----------------------|----------------------------|
| Power Pack with Dry Contact Relay | OSP15-R30 | 347VAC, 60 Hz | 15A fluorescent @ 347V; 1HP @ 120V, 2HP @ 240V; HVAC: 0.5A @ 120VAC, 1A @ 30VDC | 5mA, 24VDC | 120mA, 24VDC |
| Add-A-Relay Unit with Dry Contact Relay | OSA20-R00 | — | 15A incandescent @ 120V, 20A fluorescent @ 120V, 20A fluorescent @ 277V, 15A fluorescent @ 347V; HVAC: 0.5A @ 120VAC, 1A @ 30VDC | 5mA, 24VDC | — |
| Power Pack with Dry Contact Relay and Override Inputs for Occupancy Sensors | OSP20-RDH | 120-230-277VAC, 50/60 Hz | 20A fluorescent/incandescent @ 120V; 20A fluorescent @ 277V; 1HP @ 120V, 2HP @ 240V; HVAC; .05A @ 120VAC, 1A @ 20VDC and 15A fluorescent @ 347V; 1HP @ 120V; 2HP @ 240; HVAC: 0.5A @ 120V, 1A @ 30VDC | 5mA, 24VDC | 225mA, 24VDC |

* Consult factory for 208, 220 and 240V models

OSP/OSA Power Pack Series

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