LEVITON®

OSP20-RDH/RNH Super Duty Power Pack
Combines transformer relay functions, occupancy sensor control, and manual/automatic operation into a single high performance unit

Description

The OSP20-RDH/RNH power pack provides a wide array of switching solutions into a single unit. Exclusive Leviton High Inrush Stability (H.I.S.™) circuitry is specifically designed to handle today's high inrush electronic ballast loads and offer unmatched durability and service.
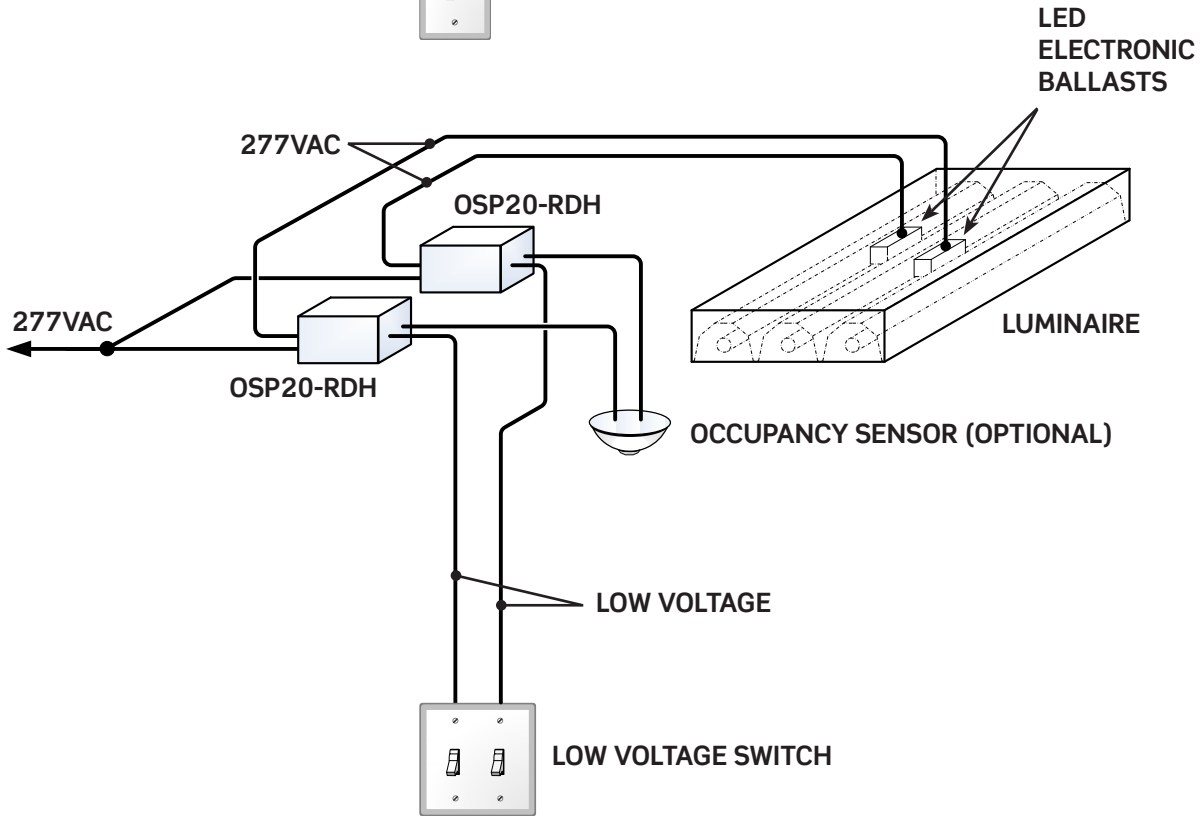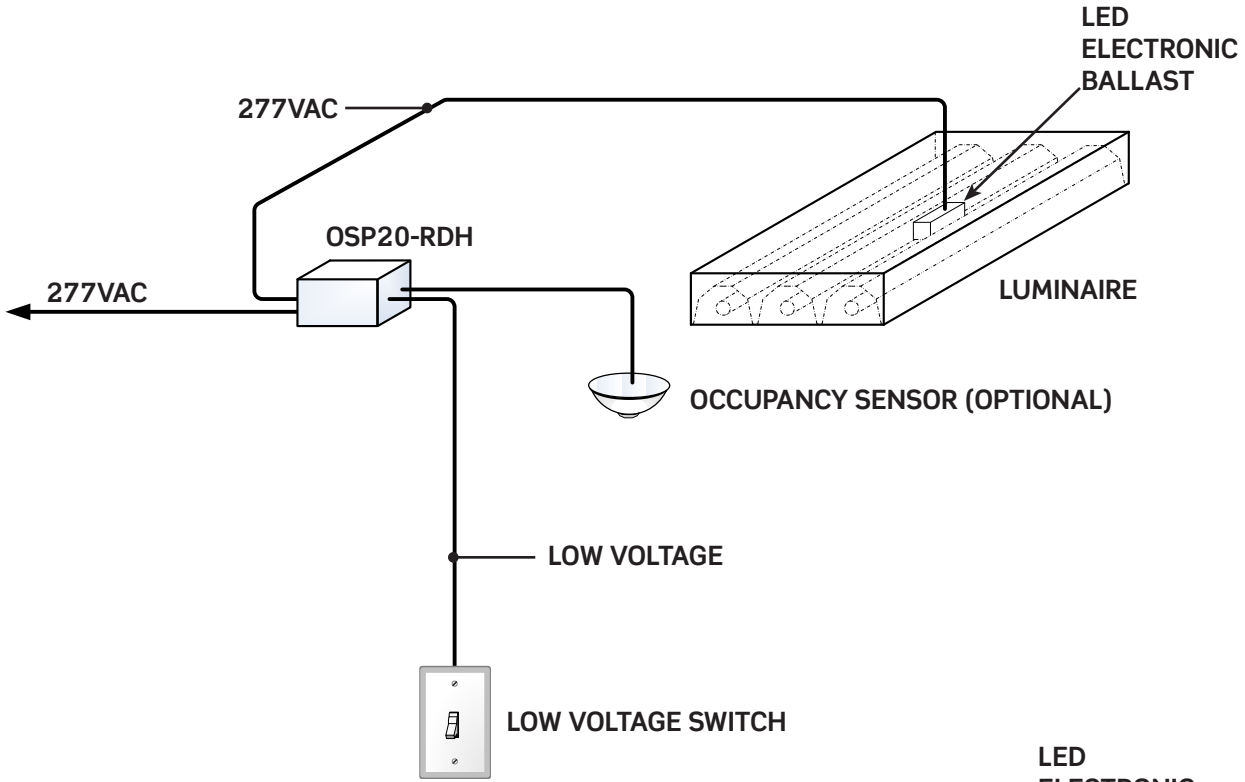
Applications

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

- Bi-level lighting applications
- Classrooms
- Conference Rooms
- Offices
- Load shed/interface hold-OFF applications
- Retail hold-ON/bypass applications
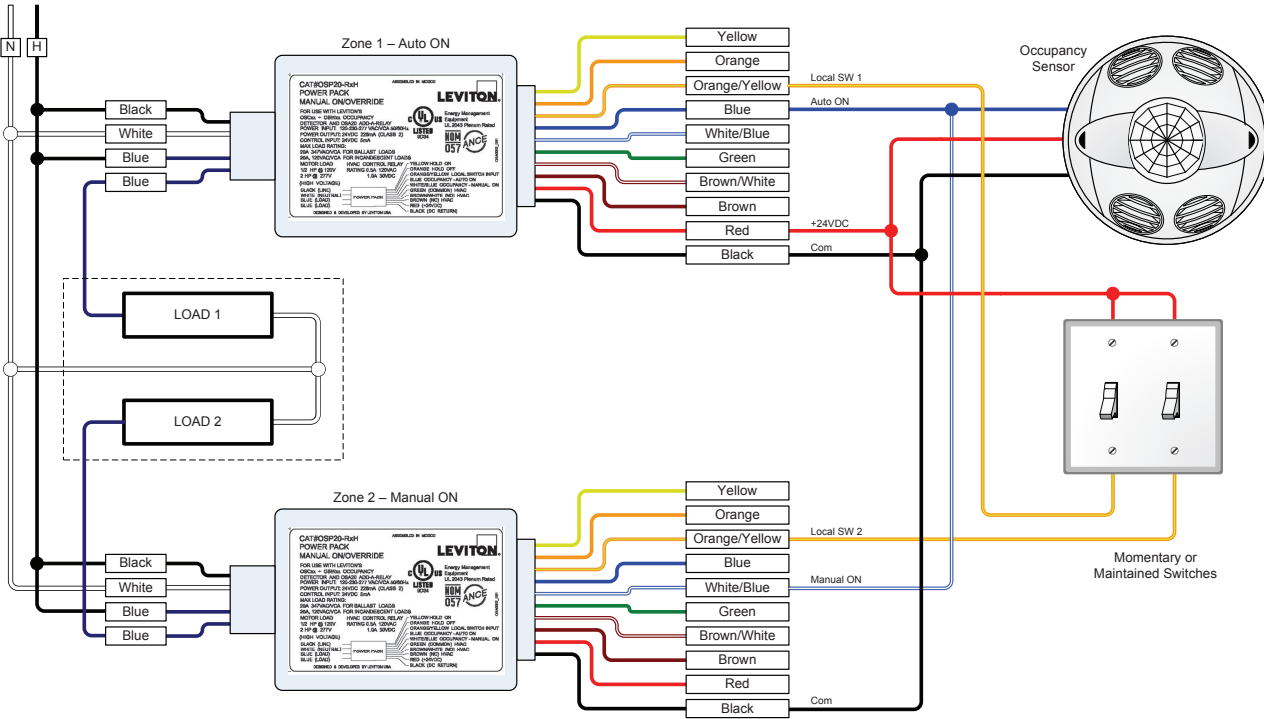- Anywhere optimal lighting and energy savings are desired

Features

- Extreme durability: exceeds WS-896 specification duty cycle requirements for specification grade toggle switches
- Exclusive H.I.S. circuit designed to handle high inrush LED and electronic ballast loads
- Zero crossing design for reliability and extended life
- Mechanical latching relay for dependability and robust for all load types
- Return-to-on design provides fail safe operation in the event of power loss or malfunction
- Transformer Relay Function: OSP20-RDH/RNH replaces traditional transformer relays and provides occupancy sensors control. Ideal for use where code requirements/jurisdictions prohibit the use of 277V switch legs
- Can be used to comply with IECC, ASHRAE 90.1, and 2022 Title 24, Part 6 bi-level lighting control
- UL 2043 Plenum rated
- Endurance tested to over 1,000,000 cycles at full load
- Integrates with low voltage momentary and maintained switches to control occupancy sensors.
- Conduit adaptor included for low voltage connections

Transformer Relay Application Diagram

LED
ELECTRONIC
BALLAST

277VAC

277VAC

OSP20-RDH

LUMINAIRE

OCCUPANCY SENSOR (OPTIONAL)

LOW VOLTAGE

LOW VOLTAGE SWITCH

LED
ELECTRONIC
BALLASTS

277VAC

OSP20-RDH

277VAC

OSP20-RDH

LUMINAIRE

OCCUPANCY SENSOR (OPTIONAL)

LOW VOLTAGE

LOW VOLTAGE SWITCH

Bi-Level Switching Diagram

Zone 1 – Auto ON

CAT#OSP20-RxH
POWER PACK
MANUAL ON/OVERRIDE

| Yellow |
| Orange |
| Orange/Yellow | Local SW 1 |
| Blue | Auto ON |
| White/Blue |
| Green |
| Brown/White |
| Brown |
| Red | +24VDC |
| Black | Com |

LOAD 1

LOAD 2

Zone 2 – Manual ON

CAT#OSP20-RxH
POWER PACK
MANUAL ON/OVERRIDE

| Yellow |
| Orange |
| Orange/Yellow | Local SW 2 |
| Blue |
| White/Blue | Manual ON |
| Green |
| Brown/White |
| Brown |
| Red |
| Black | Com |

Occupancy Sensor

Momentary or Maintained Switches

N H

Black
White
Blue
Blue

Black
White
Blue
Blue

Ordering Information

DESCRIPTION	CAT. NO.	POWER INPUT	RELAY RATING	CONTROL INPUT	POWER SUPPLY OUTPUT
Power Pack	OSP20-0D0 OSP20-ND0 (NAFTA) OSP20-DA0 (Made in USA with globally sourced components)	120-230-277VAC, 50/60 Hz	20A fluorescent/incandescent/LED @ 120V, 20A fluorescent/LED @ 230-277V; 1HP @ 120V, 2HP @ 240V	5mA, 24VDC	150mA, 24VDC
Power Pack with Dry Contact	OSP20-RD0 OSP20-NH0 (NAFTA) OSP20-RAD (Made in USA with globally sourced components)	120-230-277VAC, 50/60 Hz	20A fluorescent/incandescent/LED @ 120V, 20A fluorescent/LED @ 277V; 1HP @ 120V, 2HP @ 240V; HVAC: 0.5A @ 120VAC, 1A @ 30VDC	5mA, 24VDC	150mA, 24VDC
Power Pack with Dry Contact	OSP15-R30	347VAC, 60 Hz	15A fluorescent /LED @ 347V; 1HP @ 120V, 2HP @ 240V; HVAC: 0.5A @ 120VAC, 1A @ 30VDC	5mA, 24VDC	120mA, 24VDC
Add-A-Relay Unit with Dry Contact	OSA20-R00 OSA20-RN0 (NAFTA) OSP20-RAH (Made in USA with globally sourced components)	—	15A incandescent/LED @ 120V, 20A fluorescent/LED @ 120V, 20A fluorescent/LED@ 277V, 15A fluorescent/LED @ 347V; HVAC: 0.5A @ 120VAC, 1A @ 30VDC	5mA, 24VDC	—
Power Pack with Dry Contact Relay and Override Inputs for Occupancy Sensors	OSP20-RDH OSP20-RNH (NAFTA) OSP20-RAH (Made in USA with globally sourced components)	120-230-277VAC, 50/60Hz	20A fluorescent/incandescent/LED @ 120V; 20A fluorescent/LED @ 277V; 1HP @ 120V, 2HP @ 240V; HVAC; .05A @ 120VAC, 1A @ 20VDC and 15A fluorescent /LED@ 347V; 1HP @ 120V; 2HP @ 240; HVAC: 0.5A @ 120V, 1A @ 30VDC	5mA, 24VDC	225mA, 24VDC

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:

# of sensor Model As X Sensor A current consumption	+	# of sensor Model Bs X Sensor B current consumption	+	# of Add a Relays X 50mA	‹ Power supply output per above chart

DESCRIPTION	CURRENT CONSUMPTION
OSC04-I, OSC15-I	10mA
OSWHB-I, OSWLR-I, OSWWV-I	15mA
OSW12-M	25mA
OSC20-M, OSC20-U	30mA
OSC05-U, OSC05-M	32mA
OSC10-U, OSC10-M	40mA
OSA20-R Add-a-Relay	50mA