

# Super Duty Power Pack Line

## High performance line includes models for daylight harvesting, bi-level switching, plug load control, CA Title 24, occupancy sensing control, and manual switching



### DEFINITION

The OPP20 is the latest addition to the Leviton Power Pack family, delivering a wide array of switching solutions in a single unit. Submitted for stringent testing, this robust Power Pack line is designed to deliver unmatched performance. The OPP20 line features robust and reliable mechanical latching relays, exclusive fail-safe circuitry, daylight harvesting, bi-level switching, and is configurable for energy code requirements (CA Title 24, ASHRAE 90.1, NYC LL48). Exclusive Leviton High Inrush Stability (H.I.S.™) circuitry is specifically designed to handle high inrush electronic ballast loads and offer unmatched durability and service.

### APPLICATIONS

- Daylight Harvesting
- Bi-level Switching
- Plug Load Control
- CA Title 24 Compliant
- Auto-ON/Auto-OFF with Local Switch
- Manual-ON/Auto-OFF with Local Switch

### OPP20 SOFTWARE FEATURES

- Fail-safe circuitry/Return-to-Closed capability

### OPP20 SOFTWARE FEATURES BY MODEL

#### OPP20-OD1

- Auto-ON occupancy sensor input

### OPP20 SOFTWARE FEATURES BY MODEL (CONT'D)

#### OPP20-OD2

- Exclusive patented self-detect configurable local switch input - momentary or maintained
- Configurable for Auto-ON and Manual-ON occupancy sensor inputs
- CA Title 24 Compliant

#### OPP20-RD3

- Auto-ON occupancy sensor input
- Photocell (switching only) ready

#### OPP20-RD4

- Exclusive patented self-detect configurable local switch input - momentary or maintained
- Configurable for Auto-ON and Manual-ON occupancy sensor inputs
- Photocell (switching only) ready
- CA Title 24 Compliant

### OPP20 HARDWARE FEATURES

- Robust and reliable mechanically held latching relay provides dependability and robust performance for all load types and provides power savings over electrically held relay power packs
- Industry exclusive fail-safe circuitry - in the event of product failure, Return-to-Closed capability causes relay to default to a closed position (ON) for safe operation and alleviates life safety concerns
- Industry exclusive H.I.S. (High Inrush Stability) circuit designed to handle high inrush electronic ballast loads
  - Factory calibrated zero crossing for extended life of the relay
- Submitted and passed for stringent testing:
  - Tested over 1,500,000 loaded cycles
  - Passed NEMA 410 testing for electronic ballast inrush current
  - UL/cUL 916 Listed for Energy Management Equipment
- Power supply output short circuit protection
- Voltage regulated at 24VDC, 225mA
- Optimal installation flexibility
  - Class 2 wires are Teflon coated for UL2043 Plenum Rated applications
  - Mounts inside or outside fluorescent ballast cavity
  - Mounts inside or outside junction box
- RoHS Compliant

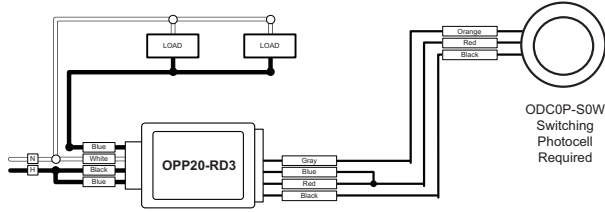
OPP20-OD1 • OPP20-OD2 • OPP20-RD3 • OPP20-RD4

# PRODUCT DATA

## APPLICATION DIAGRAMS

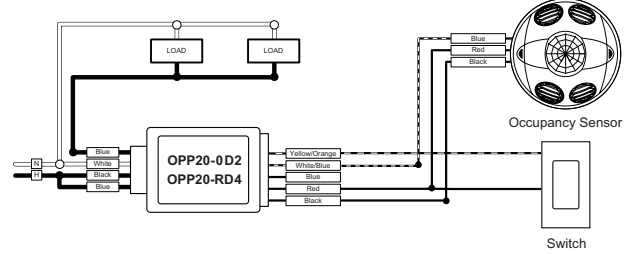
**OPP20-0D1 • OPP20-0D2 • OPP20-RD3 • OPP20-RD4**

**Photocell ONLY Room Control**



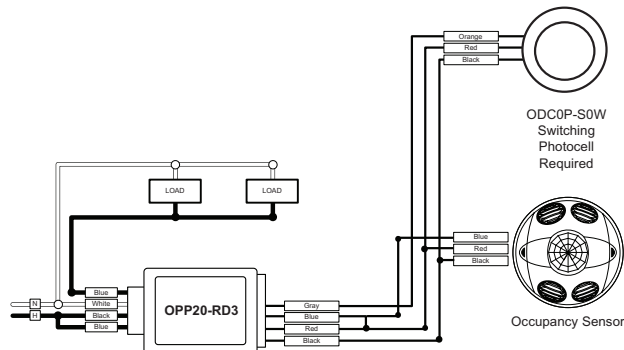
NOTE: Power Pack and the load switched by the power pack MUST be fed from the same phase.

**Manual ON/Auto OFF with Local Switch**



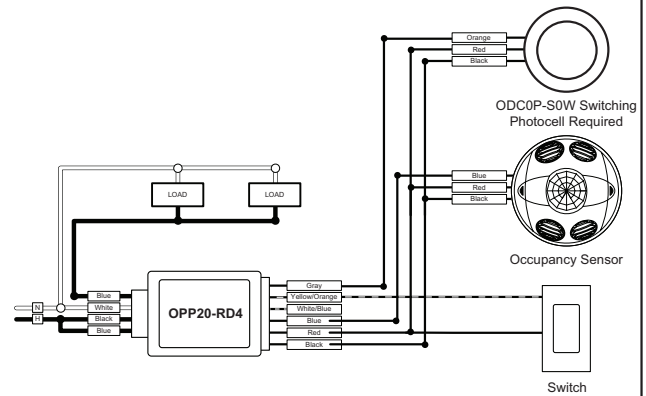
NOTE: Power Pack and the load switched by the power pack MUST be fed from the same phase.

**Photocell and Occupancy Sensor Room Control**



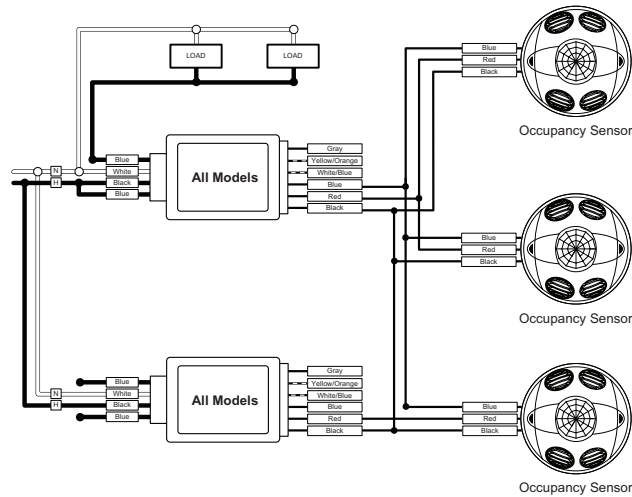
NOTE: Power Pack and the load switched by the power pack MUST be fed from the same phase.

**Photocell and Occupancy Sensor with Local Switch**



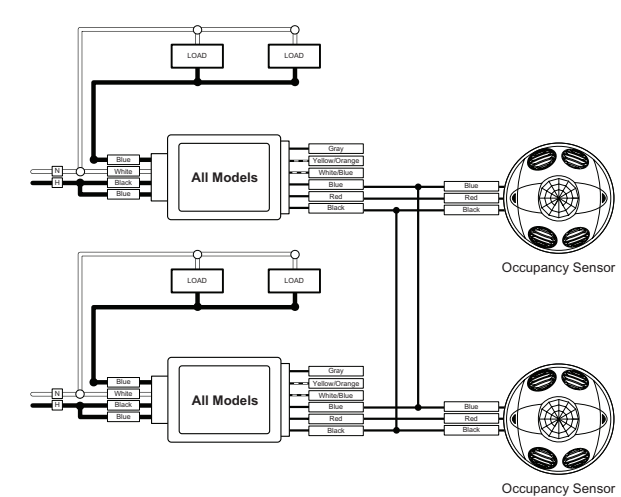
NOTE: Power Pack and the load switched by the power pack MUST be fed from the same phase.

**Multiple Occupancy Sensors Exceeding the Power Pack's Rating**



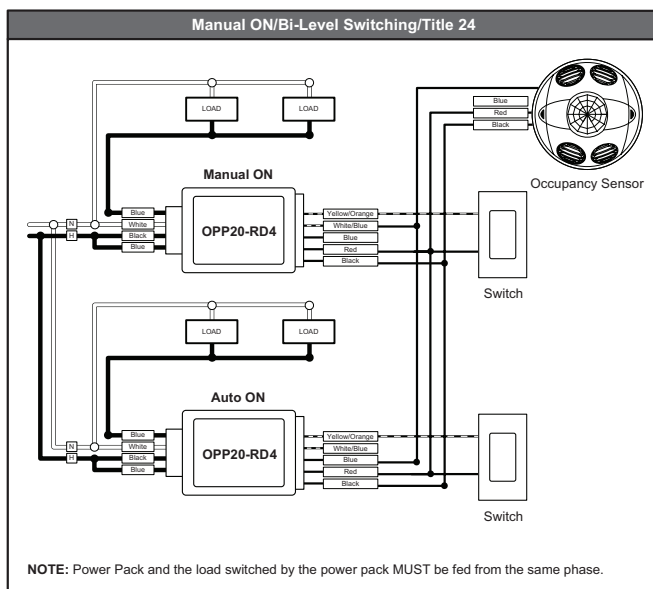
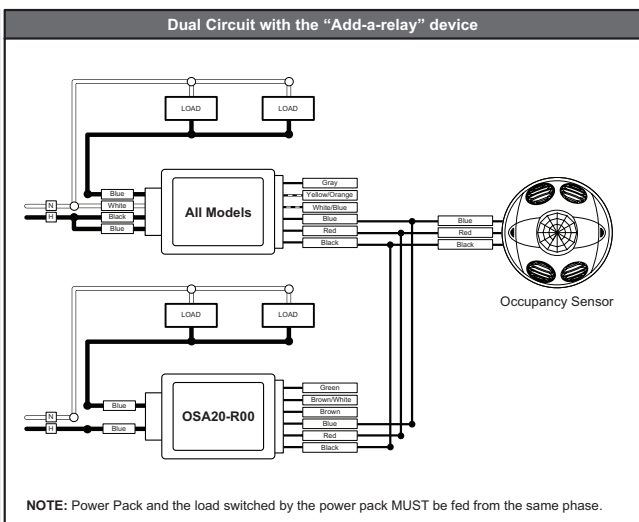
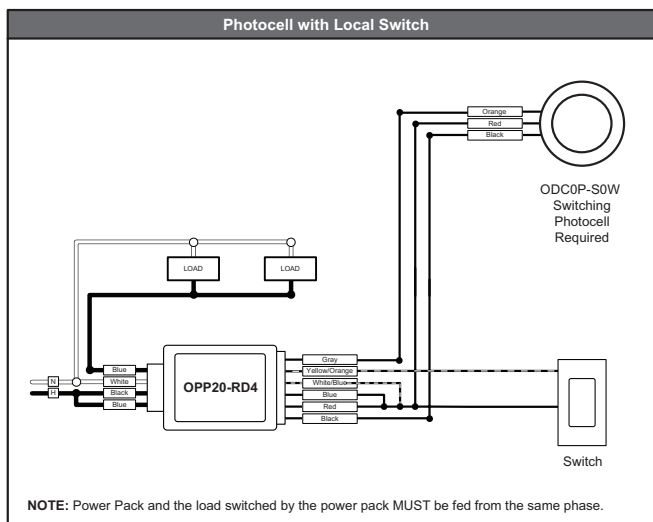
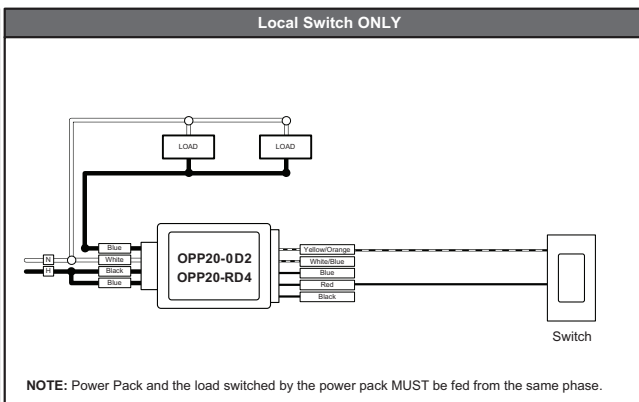
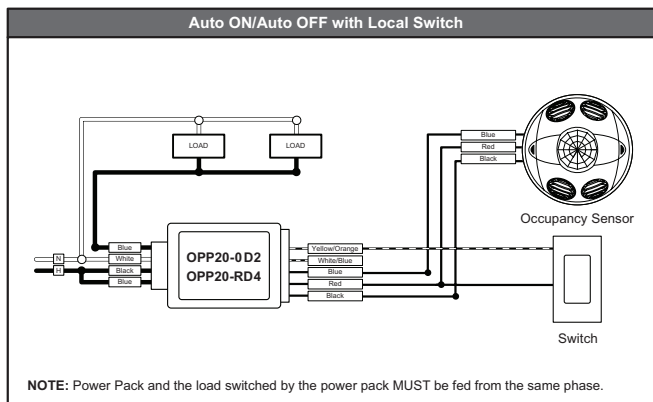
NOTE: Power Pack and the load switched by the power pack MUST be fed from the same phase.

**Multiple Loads Exceeding a Single Power Pack's Load Rating**

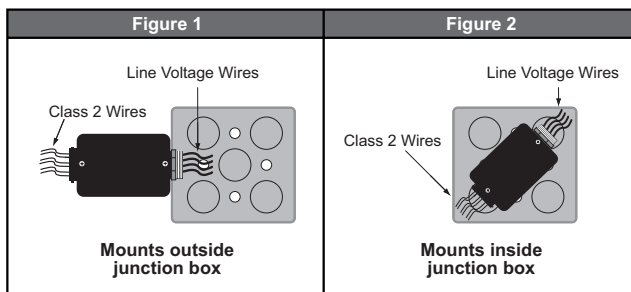


NOTE: Power Pack and the load switched by the power pack MUST be fed from the same phase.

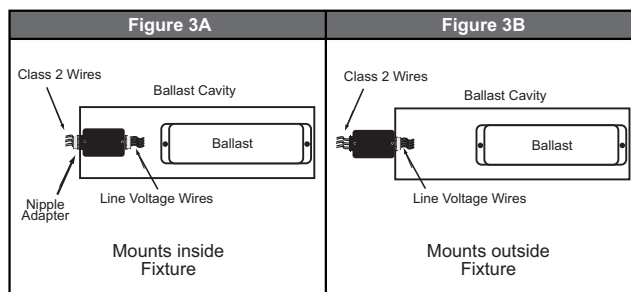
**APPLICATION DIAGRAMS**



**JUNCTION BOX INSTALLATION**



**FLUORESCENT BALLAST INSTALLATION**



For additional wiring diagrams, see the Occupancy Sensors Application Cookbook at [www.leviton.com/lesdrawings](http://www.leviton.com/lesdrawings).

**SPECIFICATIONS**

ENVIRONMENTAL	
Operating Temperature Range	32°F to 122°F (0°C to 50°C)
Relative Humidity	0% to 90% non-condensing, for indoor use only
OTHER	
Construction	Case: high impact, UL rated plastic Relay: 60A rated magnetic latching relay; silver alloy contacts Wire: 6" leads, 18AWG input; 14AWG load; LV connections: 8" 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, CA Title 24 Compliant, meets ASHRAE 90.1 requirements, RoHs Compliant
Color	Gray
Warranty	Limited Five-Year Warranty

**ORDERING INFORMATION\***

DESCRIPTION	CAT. NO.	POWER INPUT	RELAY RATING	CONTROL INPUTS	POWER SUPPLY OUTPUT
Power Pack, Basic with Auto-ON	OPP20-0D1	120-230-277VAC, 50/60 Hz	20A, 2400W @ 120V – Resistive 20A, 2400W @ 120V – General Purpose 20A, 2400W @ 120V – Incandescent 20A, 2400W @ 120V – Fluorescent	2mA, 24VDC	225mA, 24VDC, 5.4W
Power Pack with Auto-ON, Manual-ON, and Local Switch Inputs, Title 24	OPP20-0D2		20A, 5540W @ 277V – Resistive 20A, 5540W @ 277V – General Purpose		
Power Pack with Auto-ON and Photocell Input	OPP20-RD3		16A, 4430VA @ 277V – Electronic Ballasts 1/2 HP @ 120V – Motor Load 2 HP @ 240/277V – Motor Load		
Power Pack with Auto-ON, Manual-ON, Local Switch, and Photocell Input, Title 24	OPP20-RD4		Suitable for general purpose plug load control - 20A, 2400W @ 120V - complies with ASHRAE 90.1 and CA Title 24 Plug Load Control Requirements		

\*For CE Compliant Lighting Control Module, see the OPPCE data sheet.

**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:

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

Power supply output per below chart



DESCRIPTION	CURRENT CONSUMPTION
OSC04-I, OSC15-I, OSWHB-I, OSWLR-I, OSWWV-I	10-15mA
OSC05-M, OSC05-U, OSW12-M	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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