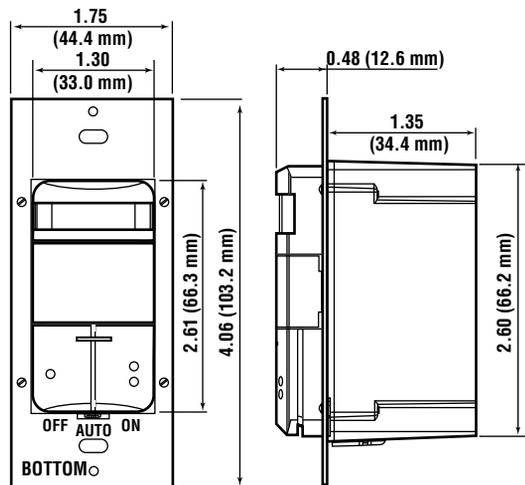


DUAL-RELAY WALL SWITCH PIR OCCUPANCY SENSOR (WS OS IDR)



DIMENSIONS



BASIC OPERATION - The WS OS IDR uses passive infrared (PIR) technology to monitor a room for occupancy through a segmented Fresnel lens. This specialized lens divides the field-of-view into sensor zones. When a person passes into or out of a sensor zone, the sensor detects motion and switches two separate lighting loads ON. The lights will remain ON as long as there is an occupant moving through the sensor zones.

Provides automatic switching of two separate lighting loads from a single unit. It is compatible with incandescent, fluorescent and low-voltage lighting. The unit features dual manual-override switches that can be used to toggle the ON/OFF status of each lighting load while an area is occupied. Can be installed in place of two single-pole wall switches and fits in a standard single-gang wall box.

APPLICATIONS

- Classrooms
- Conference rooms
- Offices
- Day care centers
- Lounges
- Daylight harvesting
- Multimedia rooms
- Bi-level or A/B switching

FEATURES

- Provides automatic switching for two separate banks of fluorescent, incandescent, or low-voltage lighting from a single unit.
- Convenient dual push buttons provide manual-ON/OFF light switching of each load at any time.
- Conference Room Mode—primary and secondary relays switch lighting to last ON/OFF status when personnel enter room, providing a consistent lighting level from one occupancy period to the next. Both relays respond to Ambient Light Override, preventing lights from turning ON automatically during periods of ample natural light, for increased energy savings.
- Classroom Mode—both primary and secondary relays always switch lighting ON when personnel enter room, regardless of their ON/OFF status during last period of occupancy. Secondary relay only responds to Ambient Light Override—primary does not, ensuring that students and personnel never enter a darkened room.
- Presentation Mode feature for slide or film presentations allows push buttons to turn lights OFF and keep them OFF while the room is occupied.
- Auto adapting delayed-OFF time interval compensates for real-time occupancy patterns, preventing unnecessary ON/OFF switching.
- Exclusive Walk-Through feature provides increased energy savings by not leaving the lights ON for an extended period after only momentary occupancy.
- Non-Adaptive Mode disables Self-Adjusting Delayed-OFF Time and Walk-Through feature in applications where these features are not desired.
- Daylight harvesting light sensor measures the ambient light in the room when it first detects motion. It leaves the lights OFF if there is enough light in the room or turns the lights connected to the first relay ON if there is not enough light in the room.
- Low-profile design eliminates obtrusive “scanning-device” look.
- 180° field-of-view provides approximately 2100 square feet of coverage, suitable for a variety of commercial areas.
- Segmented Fresnel lens provides optimum sensitivity and performance. Designed with an extensive “minor motion” area where even slight body movements will be detected.
- Patented blinders: horizontal field-of-view may be adjusted between 180° and 60° arc by using integral blinders located on either side of the lens. No masking tape required.
- Time delay adjustment for delayed-OFF time settings of 30 seconds, 5, 10, and 30 minutes. Allows customized adjustments to maximize energy savings.
- Vandal resistant PIR lens.
- False detection circuitry.
- Light Sensor adjustable Ambient Light Override ranges from approximately 2FC (20 LUX) to 500+FC (5000+ LUX).
- Manual-ON/auto-OFF mode for installations where manual-ON switching is required but auto-OFF switching is still desired for CEC Title T20/24 energy savings.
- To comply with CEC Title 20/24, red LED indicator light flashes when PIR sensor detects motion to verify detection is active.
- Beep warn - unit beeps 3 times after delayed-OFF time expires, then waits 10 seconds before turning lights OFF.
- One unit can be used for 120V through 277V lighting. Compatible with both electronic and magnetic ballasts.
- Primary relay switches at the zero crossing point of the AC power curve to ensure longer contact life and compatibility with electronic ballasts.
- Unit fits in standard single-gang wallbox and replaces two single-pole wall switches; ground connection required. Gangable with other devices.
- Exclusive H.I.S. Circuitry. Specifically designed to handle today’s high inrush electronic ballast loads and offer unmatched durability and service.



Project Name _____ Catalog # _____

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DUAL-RELAY WALL SWITCH PIR OCCUPANCY SENSOR (WS OS IDR)

OPERATION IN CONFERENCE ROOM MODE (WS OS IDR)

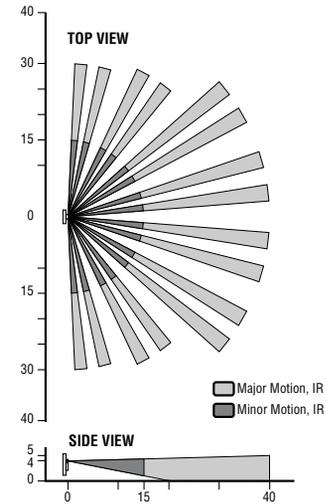
	Lighting status during occupancy	Ambient Light Override	Room vacant, delayed-OFF time expires. Lighting status when personnel re-enter darkened room	Room vacant, delayed-OFF time expires. Lighting status when personnel re-enter room with ample natural lighting
1	Primary: ON - Secondary: ON	Not Set	Primary: ON - Secondary: ON	Primary: ON - Secondary: ON
2	Primary: ON - Secondary: ON	Set	Primary: ON - Secondary: ON	Primary and Secondary remain OFF due to light override
3	Primary: ON - Secondary: OFF	Not Set	Primary: ON - Secondary: OFF	Primary: ON - Secondary: OFF
4	Primary: ON - Secondary: OFF	Set	Primary: ON - Secondary: OFF	Primary and Secondary remain OFF due to light override
5	Primary: OFF - Secondary: ON	Not Set	Primary: OFF - Secondary: ON	Primary: OFF - Secondary: ON
6	Primary: OFF - Secondary: ON	Set	Primary: OFF - Secondary: ON	Primary and Secondary remain OFF due to light override
7	Both Primary and Secondary turned OFF for viewing mode	Not Set	Primary: ON - Secondary: OFF	Primary: ON - Secondary: OFF
8	Both Primary and Secondary turned OFF for viewing mode	Set	Primary: ON - Secondary: OFF	Primary and Secondary remain OFF due to light override

OPERATION IN CLASSROOM MODE (WS OS IDR)

	Lighting status during occupancy. NOTE: Previous status does not in Class Room Mode	Ambient Light Override	Room vacant, delayed-OFF time expires. Lighting status when personnel re-enter darkened room	Room vacant, delayed-OFF time expires. Lighting status when personnel re-enter room with ample natural lighting
1	Not applicable	Not Set	Primary: ON - Secondary: ON	Primary: ON - Secondary: ON
2*	Not applicable	Set	Primary: ON - Secondary: ON	Primary: ON - Secondary: OFF (Secondary responds to light override)

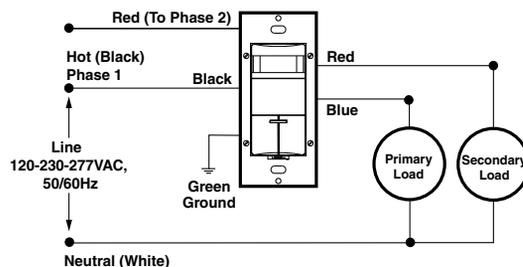
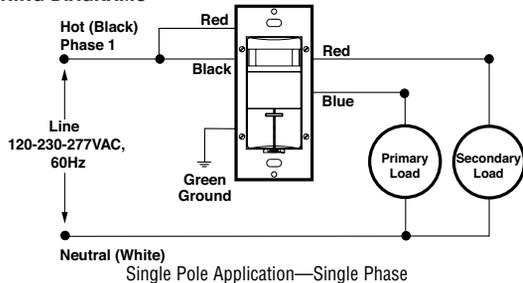
*Example Number 2, with the Ambient Light Override set, is more typical of the Classroom Mode.

FIELD OF VIEW



Provides a 180° field-of-view with a maximum coverage area of approximately 2100 square feet. The maximum sensing distance in front of the sensor is 40 feet, and at each side is 30 feet. The “minor motion” zone detects relatively small body movements and allows the lights to stay ON even though a person may not be moving or walking around the room. The remainder of the field-of-view, the “major motion” zone, exhibits a lesser degree of sensitivity and requires larger movements.

WIRING DIAGRAMS



Note: Ground must be connected

SPECIFICATIONS

ELECTRICAL		
Line Voltage	120-230-277 VAC	
Power Consumption	120V - 110mW	277V - 270mW
Operational Frequency	50/60Hz	
Wire Designation	Primary Relay—No. 16 AWG leads: Line—Black Load—Blue Ground—Green	Secondary Relay— NO. 18 AWG isolated contact leads: (2) Red
Load Rating	Primary Relay—Fluorescent: 1200VA @ 120V 2700VA @ 277V Incandescent: 800W @ 120V	Secondary Relay— Fluorescent: 800VA @ 120V 1200VA @ 277V Incandescent: 800W @ 120V

ENVIRONMENTAL	
Operating Temperature Range	32°F to 122°F (0°C to 50°C)
Storage Temperature Range	-50°F to 185°F (-10°C to 85°C)
Relative Humidity	20% to 90% non-condensing

OTHER	
Listings	CUL/US Certified, CEC Title 20/24 Compliant, FCC Compliant
Warranty	Limited Five-Year Warranty

ORDERING INFORMATION

PART NO.	CAT. NO.	DESCRIPTION
596040	WS OS IDR WH	Wall PIR 180°/2100 sq. ft. dual relay (120/277 VAC) White
596041	WS OS IDR IV	Wall PIR 180°/2100 sq. ft. dual relay (120/277 VAC) White



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