

Occupancy & Vacancy Sensors

Pass & Seymour



Detection Signature Analysis provides high immunity to RFI and EMI.

Compact, decorator design replaces existing wall switch.

Built-in light level sensor works from 10 to 150 footcandles.

Compatible with all electronic and magnetic ballasts, PL lamp ballasts, compact fluorescent.

5-year warranty.

180° coverage of up to 900 sq. ft.

WSP200-LA



Dual 120/277VAC operation.

30% to 60% energy savings.

No minimum load requirement.

Adjustable sensitivity from 20% to 100%.

Reinforced lens.

Patented Zero Crossing Circuitry.

Patented voltage drop protection.

Grounded strap.

In an era of tight budgets and energy consciousness — count on our wide line of innovative occupancy & vacancy sensors for commercial, residential, and industrial applications.

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Occupancy & Vacancy Sensors Product Description

Surveys have shown that specific areas in buildings may be unoccupied between 30% and 60% of a typical workday. With conventional switching, occupants rarely turn off lights in rooms or areas which are not being utilized. Pass & Seymour/Legrand® occupancy sensors provide automatic switching of lighting loads in commercial, institutional, and industrial facilities — effectively controlling energy costs and usually paying for themselves within 24 months.



While occupancy sensors are optional in commercial buildings, energy concerns have created directives in some states for lighting controls in new residential construction and major renovations. In an effort to reduce electrical power consumption, California has mandated one of the most stringent energy codes in the country. California Title 24 requires high efficacy luminaires, vacancy sensors, or dimmers (Section M) to be placed in certain areas of the home. The standard became effective on October 1, 2005. Other states are considering adopting similar mandates to answer their own energy concerns. Pass & Seymour/Legrand has an extensive selection of vacancy sensor and dimmer solutions to address this growing industry trend.

Application & Operation

Pass & Seymour/Legrand occupancy and vacancy sensors utilize either passive infrared (PIR) or ultrasonic sensor technology. PIR systems detect differences in heat within a specific area, and are best suited for spaces that allow direct line-of-sight viewing or require masked detection in certain areas. Ultrasonic sensors, which operate on the Doppler Principle, emit sound waves well above the range of human hearing to detect occupancy. The best applications for ultrasonic systems are enclosed areas, and partitioned spaces that break the sensor's line of sight.

Passive Infrared Sensors

Using a patented fresnel lens which minimizes optical aberrations, each Pass & Seymour/Legrand PIR sensor breaks its coverage area into zones. Upon detecting an infrared energy change within a zone, one of the elements in the dual-element pyroelectric sensing device of an occupancy sensor generates a positive pulse. Within milliseconds, the other element produces a negative pulse and the lights are turned on. Vacancy sensors turn lights off when the room is vacant for a period of time, or when there is no infrared energy detected within a zone.

Passive infrared sensors are unable to detect occupancy around barriers, and are more effective when sensing movement across their field of sight rather than towards or away from it.

All Pass & Seymour/Legrand PIR occupancy sensors feature:

- Patented fresnel lenses with multi-segment design
- Dual-element pyroelectric sensors
- Low-profile design
- Daylight filter systems
- Adjustable settings for time and sensitivity
- Custom Detection Signature Analysis for high immunity to RFI and EMI, and reliability

Ultrasonic Sensors

Ultrasonic sensors use a multi-directional transmitter/receiver system to broadcast ultrasonic sound waves generated by a quartz crystal oscillator, and then measure the amount of time it takes the waves to return. Movement within the area results in the sound waves returning to the sensor at a slower or faster rate, and thus occupancy is detected.

Ultrasonic sensors broadcast in three dimensions, and are therefore able to detect smaller movements than PIR sensors. Proper placement of the sensors is essential as sound waves can escape through open doorways, resulting in false triggering.

While Pass & Seymour/Legrand ultrasonic sensors use special circuitry to filter out air-flow movement caused by HVAC equipment or fans, sensors should be kept away from breezy areas. Also, heavy carpeting and other sound-absorbing materials used in the construction of a room will reduce coverage.


Pass & Seymour/Legrand ultrasonic occupancy sensor features:

- Temperature- and humidity-resistant tuned receivers
- Signal Processing Circuitry
- Solid-state, crystal-controlled transmitter
- Adjustable controls for time and sensitivity

Occupancy & Vacancy Sensors Applications

Pass & Seymour



Sensor Type	P&S Model	Appropriate Application
Residential Sensors		
Vacancy Sensor Switch	CWP100 	Nurseries, bedrooms, basements, bathrooms, garages, laundry rooms, and utility rooms. Manual ON/Auto OFF. Adjustable time delay to 30 minutes maximum. Compatible with various loads. T24 compliant.
Vacancy Sensor Switch	MCB	Nurseries, bedrooms, basements, bathrooms, garages, laundry rooms, and utility rooms. Manual ON/Auto OFF. 30 minute time off. T24 compliant.
Automatic Wall Switch	MCS	Storage rooms, walk-in closets, and pantries. 600 sq. ft. coverage, with 1 minute time delay for quick off.
Automatic Wall Switch	MCU	Laundry rooms, half baths and hallways. 5 minute time off.
Small Offices		
Automatic Wall Switch	WSP200	Small, individual offices. Sensors should have a direct, clear, front view of stationary occupants. Be sure sensors will not be blocked by doors, filing cabinets, etc.
360° Ceiling Mount or Wide Angle	WA1001 CS1001	Small, individual offices where wall switch location is a problem. For offices with general activities, WA1001 will work well placed in the corner. If there are obstacles present, the CS1001 will provide 360° coverage from the center of the office.
Ultrasonic	US1001	Offices with large obstacles or stationary workers. The US1001 covers up to 750 sq. ft., detects around obstacles, and is more sensitive to small movements than PIR sensors. It should be placed close to the area of activity and out of view of doors so waves do not exit the room.
Conference & Training Rooms		
360° Ceiling Mount	CS1001	Small conference rooms where a ceiling mount sensor is required. They should be located where they will have a clear view of the entire room but cannot see out the door.
Automatic Wall Switch	WSP200	Small conference rooms under 300 sq. ft. To ensure detection at the far end of a room, it is recommended that the wall switch sensor be within 20 feet of the farthest wall.
Ultrasonic	US1001	Small conference rooms without moving equipment that may falsely activate the sensor. The US1001 works well in a room up to 750 sq. ft. Multiple sensors may be used in larger rooms.
Wide Angle	WA1001	Medium size conference rooms (400-1000 sq. ft.) without obstacles that may block a PIR sensor's view. The WA1001 ceiling mount sensor works effectively.
Wide Angle or 360° Ceiling Mount	CS1001 WA1001	Conference rooms 1000 and 2500 sq. ft. Two WA1001 will work well when installed in opposite corners. One of the sensors should be placed to immediately sense occupants entering the room. For rooms greater than 2500 sq. ft. , use multiple CS1001 or WA1001 sensors in zones.
Lunch, Copy & Utility Rooms		
Automatic Wall Switch or 360° Ceiling Mount	WSP200 CS1001	A wall sensor is suitable for break rooms up to 300 sq. ft. if there is a clear view of the room from the light switch. For a room with an open wall that leads to other areas, masking material is included so the coverage zone may be more tightly defined. Using a CS1001 ceiling mount sensor is an alternative to masking.
360° Ceiling Mount or Wide Angle	CS1001 WA1001	In break areas between 500 and 800 sq. ft. , use CS1001 PIR ceiling mount sensors. Rooms between 800 and 1500 sq. ft. require WA1001 sensors. For areas greater than 1500 sq. ft. , break the room into zones and use multiple sensors.
Automatic Wall Switch	WSP200	In copy and work rooms smaller than 300 sq. ft. , an automatic switch works well; however, if large copiers block the sensor's view, use a ceiling mount PIR sensor.
Wide Angle	WA1001	For larger copy rooms , mounting a WA1001 PIR sensor in the corner is most effective. Place them so that tall objects do not obstruct the sensor's view of the room. For rooms exceeding 1200 sq. ft., use multiple sensors.
Automatic Wall Switch/ Ultrasonic	WSP200 US1001	An automatic wall switch sensor will work well in a utility room smaller than 300 sq. ft. ; however, if occupants spend lengthy periods of time behind cabinets or other structures, an ultrasonic sensor is a better choice.
360° Ceiling Mount	WA1001 CS1001	Utility rooms greater than 300 sq. ft. require a PIR ceiling mount sensor because high air flow causes false triggering in ultrasonic models.
Restrooms		
Ultrasonic	US1001	Due to the many partitions in commercial restrooms , an ultrasonic ceiling mount sensor is needed. Multiple sensors may be used in larger restrooms.
Hallways		
PIR Wall Mount	HS1001	In hallways without walls or where coverage masking is required , HS1001 PIR sensors are perfect. When mounted between 10 and 14 feet high, they provide a coverage area of up to 10' x 90'. Sensors should be focused on areas where people will be entering the space.

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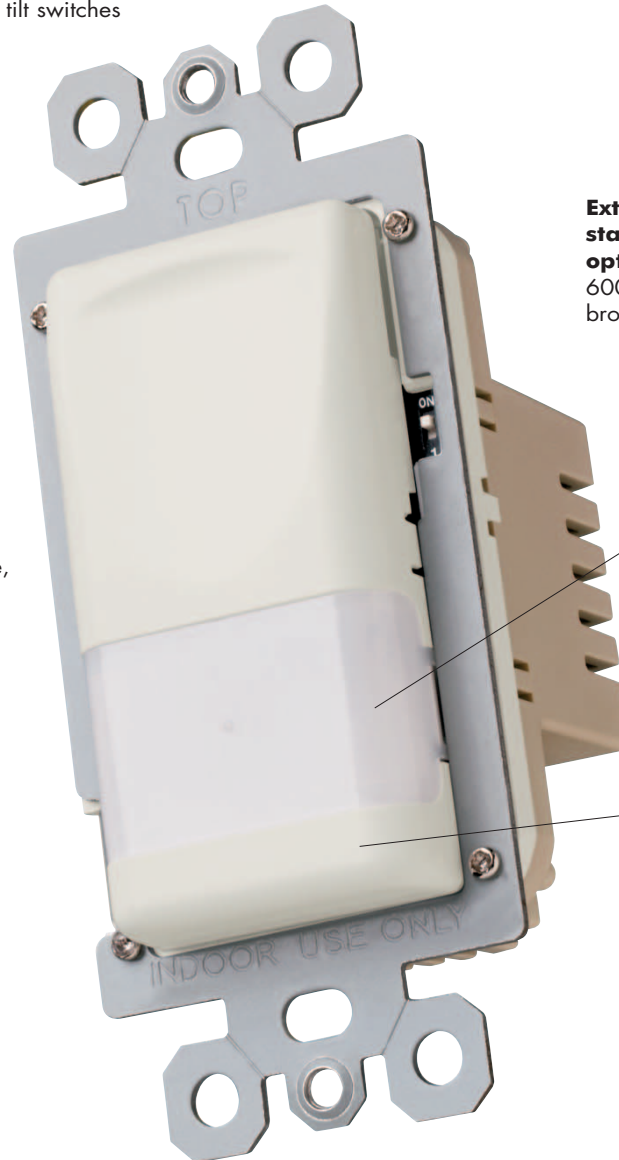


Occupancy & Vacancy Sensors TradeMaster® Vacancy Sensor Switches

Ergonomic design is easy to operate. Touch control is comfortable and intuitive, unlike the awkward miniature tilt switches available elsewhere.

Exclusive, internal screw-pressure-plate back wire terminals speed installation. Use either #12 or #14 gauge wire, stranded or solid. No-wire-lead design eliminates wire nuts – save time, space, and money.

Sophisticated, sculpted, contemporary design looks best with today's decors. No dirt-catching crevices.



CWP100-LA

Single pole and fluorescent/low-voltage/incandescent installation versatility is built in. All models rated 500 watts for more versatile, hassle-free application.



Title 24 Compliant: Manual ON/Automatic OFF with adjustable time delay up to 30 minutes.

Extra-wide 180° sensing angle standard in all models for optimum performance. Provides 600-square-foot coverage, the broadest in the market.

Extra-sturdy, impact-resistant lens – rugged lens won't dent or break and remains flush with device.

Tough, thermoplastic housing shrugs off impacts, making it perfect for residential applications. Unbreakable TradeMaster wall plate included.

Occupancy & Vacancy Sensors TradeMaster® Vacancy & Automatic Sensor Switches

Pass & Seymour

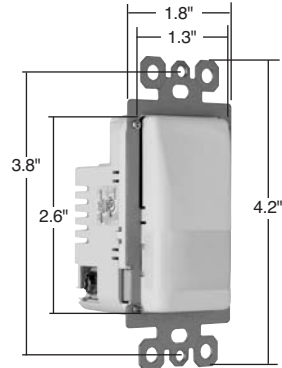


Occupancy & Vacancy Sensors

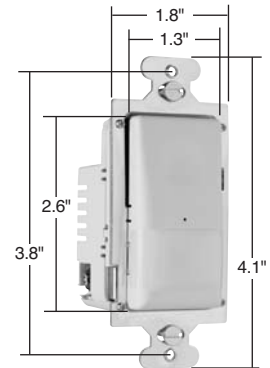
Vacancy & Automatic Sensor Switches

Features – Automatic & Vacancy Sensor Switches

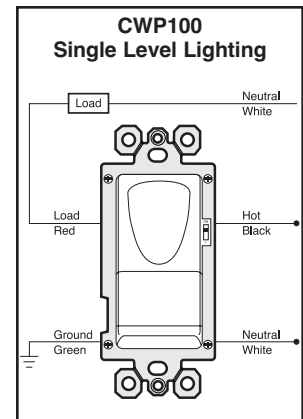
- Extra-sturdy impact-resistant lens is flush with device.
- Single pole or three-way application.
CWP100 is single pole only.
- Glows-when-off LED feature (not on CWP100).
- Exclusive internal screw-pressure-plate back wire terminals, #12 or #14 gauge stranded or solid wire.
- 5-year warranty.
- cULus listed.
- 180° coverage of up to 300 sq. ft.
- Passive infrared technology.
- Load range:
CWP100 = 0-500 watts
MCB, MCS, MCU = 40-500 watts
- CWP100 is compatible with incandescent, MLV, ELV, fluorescent, and compact fluorescent.



CWP100-LA



MCU-LA



Catalog Number	Application	Voltage	Coverage	Time Delay	Light Level Adjustment	Auto ON	Manual ON	Auto OFF	Manual OFF Override	Color
PIR Vacancy Sensor Switches (Manual ON/Auto OFF) for Incandescent, MLV, ELV, Fluorescent & Compact Fluorescent Loads										
CWP100-I	Nursery,	120VAC	180°	30 min.**			•	•	•	Ivory
CWP100-W	Bedroom,	120VAC	up to	30 min.**			•	•	•	White
CWP100-LA	Basements*	120VAC	300 sq. ft.	30 min.**			•	•	•	Lt. Almond
PIR Vacancy Sensor Switches (Manual ON/Auto OFF) for Incandescent Loads										
MCB-IV†	Nursery,	120VAC	180°	30 min.			•	•	•	Ivory
MCB-WV†	Bedroom,	120VAC	up to	30 min.			•	•	•	White
MCB-LAV†	Basements*	120VAC	300 sq. ft.	30 min.			•	•	•	Lt. Almond
PIR Automatic Switches										
MCS-IV†	Storage Room,	120VAC	180°	1 min.			•	•	•	Ivory
MCS-WV†	Walk-In Closet,	120VAC	up to	1 min.			•	•	•	White
MCS-LAV†	Pantry	120VAC	300 sq. ft.	1 min.			•	•	•	Lt. Almond
PIR Automatic Switches										
MCU-IV†	Laundry Room,	120VAC	180°	5 min.			•	•	•	Ivory
MCU-WV†	Half Bath,	120VAC	up to	5 min.			•	•	•	White
MCU-LAV†	Hallways*	120VAC	300 sq. ft.	5 min.			•	•	•	Lt. Almond

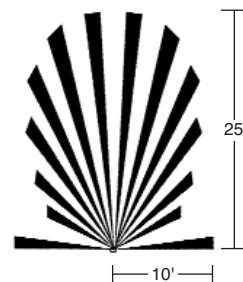
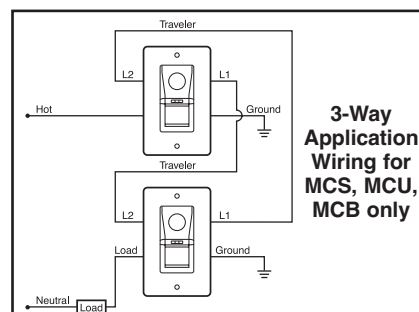
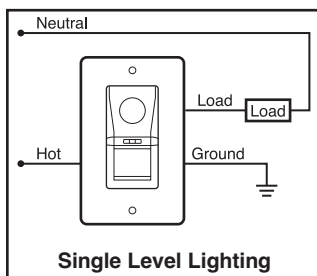
*Not recommended for all hallways and basements. Contact P&S/L Technical Support for application support.

**Adjustable time delay intervals.

†Compatible with incandescent leads only and requires a 40-watt minimum load.

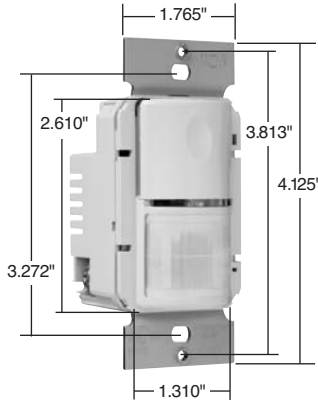
Catalog Number	Description
CWP100 and MCB	Engineered for nurseries, bedrooms, basements, bathrooms, garages, laundry rooms, and utility rooms. Manual ON (No Auto ON) eliminates nuisance of light coming on while people are sleeping. Generous time delay to Auto OFF because people may be idle in these rooms for longer periods of time.
MCS	Engineered for storage rooms, walk-in closets, pantries, and rooms where people enter and exit quickly. Automatic ON and short time delay to Auto OFF maximize energy savings.
MCU	Engineered for laundry rooms, half baths, hallways, and areas where people congregate for short periods of time. Automatic ON and a longer time delay to Auto OFF reflect the longer times people typically use these rooms.

Wiring Diagram



All devices listed on this page conform to NEMA WD-1 and WD-6.

Occupancy & Vacancy Sensors Passive Infrared Sensors



WSP200-LA



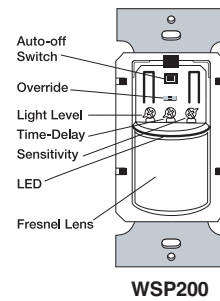
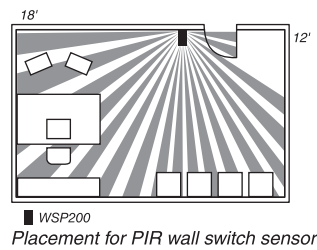
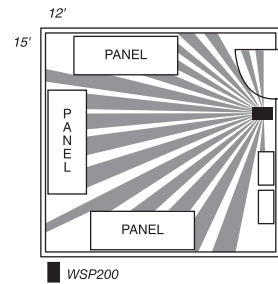
Features – Wall Switch Occupancy Sensors

- Detection Signature Analysis provides high immunity to RFI and EMI.
- Compact, decorator design replaces existing wall switch.
- Integrated light level sensor works from 10 to 150 footcandles.
- Compatible with all electronic and magnetic ballasts, PL lamp ballasts, compact fluorescent.
- 5-year warranty.
- cULus listed.
- 180° coverage of up to 900 sq. ft.
- Dual 120/277VAC operation.
- 30% to 60% energy savings.
- Positive detection indicator.
- No minimum load requirement.
- Adjustable sensitivity from 20% to 100%.
- Patented voltage drop protection.
- Patented Zero Crossing Circuitry.

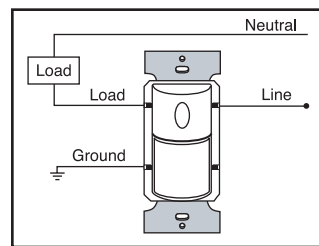
Catalog Number	Description	Voltage	Load Requirements	Coverage	Time Delay	Color
PIR Automatic Wall Switches – 3 Wire Technology						
WSP200-I	Passive Infrared Occupancy Sensor	120/277VAC; 60 Hz	800W Max. at 120V	180°, up to 900 sq. ft.	30 sec. to 30 min.	Ivory
WSP200-W			1200W Max. at 277V			White
WSP200-GRY						Gray
WSP200-LA						Lt. Almond

Planning a Layout

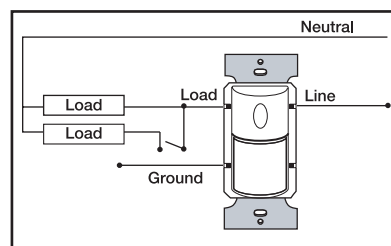
The WSP200's 2-level lens provides superior coverage at desktop level by allowing the sensor to detect vertical as well as horizontal motion. Coverage shown is for walking motion. Under optimum conditions with a high level of activity and with no barriers or obstacles, coverage can reach a maximum of 900 square feet. Under a typical, desktop level of activity, when mounted at 4 feet, coverage is 300 square feet.



Factory settings:
 30 min. time delay,
 maximum light level
 and sensitivity



Single Level Lighting
WSP200



Manual Bi-level Lighting
WSP200

Occupancy & Vacancy Sensors Passive Infrared Sensors

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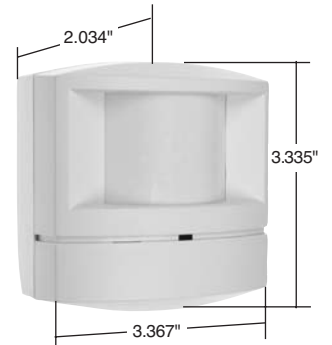


Features – WA1001 and HS1001

- Detection Signature Analysis provides high immunity to RFI and EMI.
- 2 coverage patterns to choose from.
- Wall mount or ceiling mount.
- Adjustable sensitivity settings.
- Digital time delay from 15 seconds to 30 minutes.
- Dual-element, temperature-compensated pyroelectric sensor.
- LED occupancy detection indicator.
- Compatible with 120VAC or 277VAC, 60 Hz lighting systems.
- Class 2 low-voltage device.
- Positive detection indicator.
- 5-year warranty.
- cULus listed.

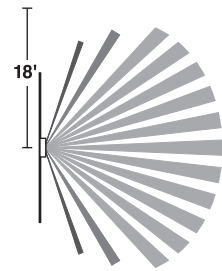
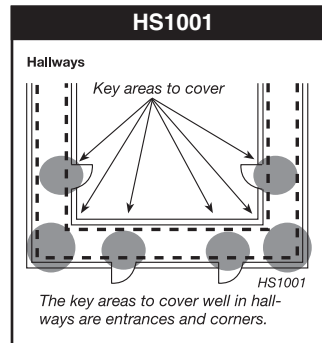
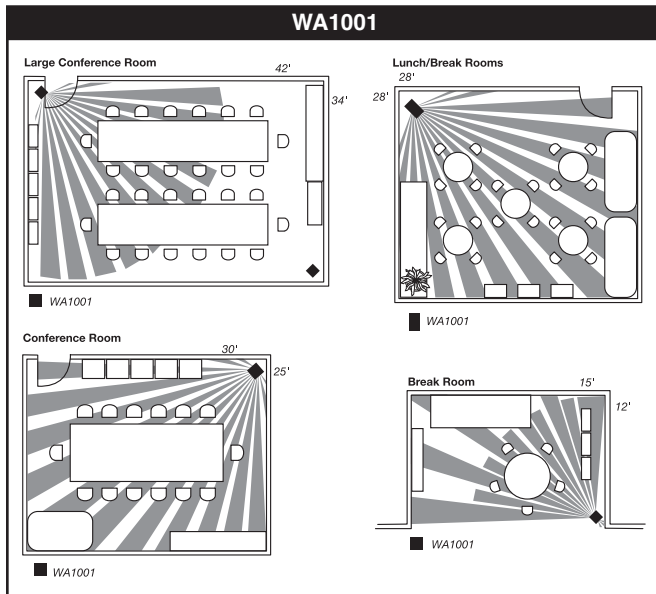
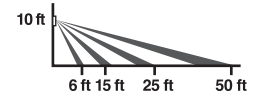
Catalog Number	Description	Voltage	Current Draw	Color	Coverage
PIR Wall/Ceiling Sensors					
WA1001	Wide Angle Passive Infrared Occupancy Sensor	24VDC	8mA	White	Up to 1200 sq. ft.
HS1001	Long Range Passive Infrared Occupancy Sensor	24VDC	8mA	White	Up to 90 linear ft.

Reference Page L-10 for Power Packs.



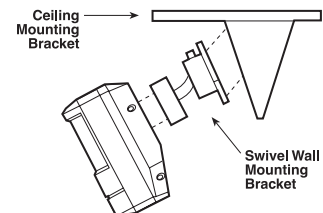
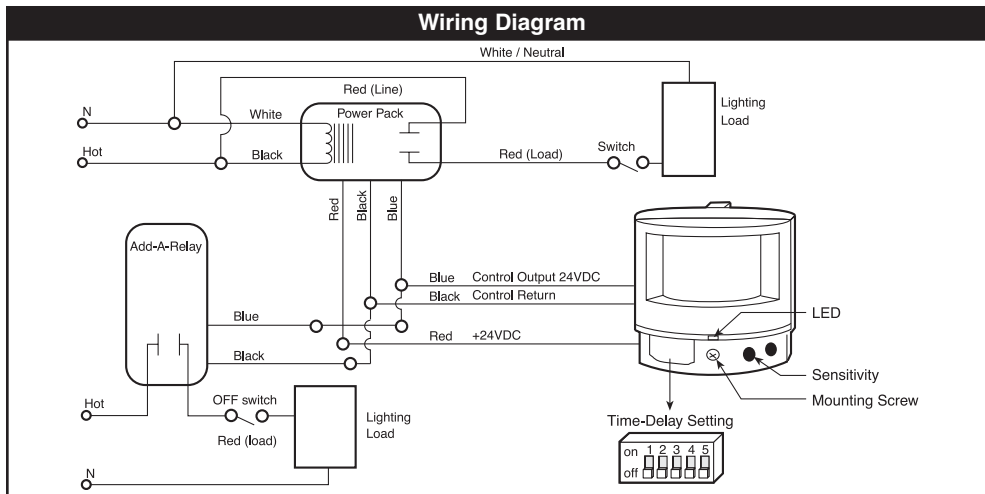
WA1001
HS1001

Wide Angle
WA1001



Hallway
HS1001

Wiring Diagram



For best results, the bracket should be used in every installation to allow for greatest flexibility of adjustment. Brackets are included with each unit.

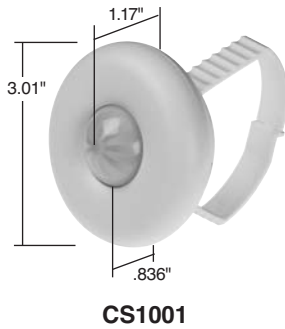
All devices listed on this page conform to NEMA WD-1 and WD-6.

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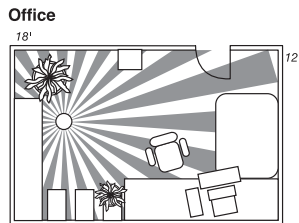
Occupancy & Vacancy Sensors

Passive Infrared Sensors



Features – CS1001

- Detection Signature Analysis provides high immunity to RFI and EMI.
- 120° viewing angle, circular coverage.
- 40' nominal viewing range. Up to 900 sq. ft.
- 5 different mounting methods for a variety of applications.
- Hinged mounting plate and directional arrow allow for adjustments to room layout.
- May be box-mounted utilizing SS1001 wall plate.
- Automatic 3-minute test cycle on power-up (factory built-in setting).
- Four element detectors for maximum sensitivity.
- Fresnel lens with multi-segment design allows greatest viewing angle.
- Compatible with 120VAC or 277VAC, 60 Hz lighting systems.
- Class 2 low-voltage device.
- Preset 20 minute time-off delay maximizes energy efficiency.
- Positive detection indicator.
- 5-year warranty.
- cULus listed.



○ CS1001

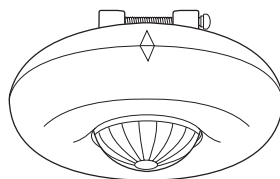
Here, the CS1001's 360 degree coverage provides coverage of the entire office.

Catalog Number	Description	Voltage	Current Draw	Color
PIR Ceiling Sensor				
CS1001	Passive Infrared Occupancy Sensor	24VDC	8mA	White

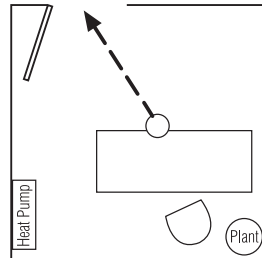
Catalog Number	Description	Ratings
Accessories		
SS1001	Single Gang Stainless Steel Wall Plate for CS1001 Box Mounting	302 Stainless Steel, 1.203" diameter hole

Reference Page L-10 for Power Packs.

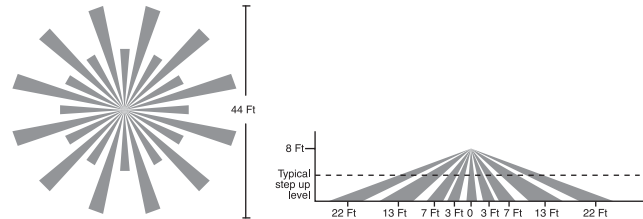
Planning a Layout



Arrows for aiming.



Point the arrow at a doorway or an area of activity.



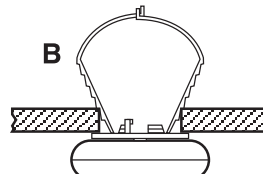
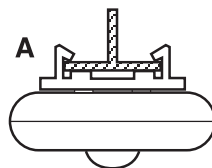
Coverage shown is maximum and represents coverage for half-step walking motion. Under ideal conditions, with no barriers or obstacles, coverage for half-step walking motion can reach up to 1200 sq. ft. For typical desktop level of activity, coverage can reach up to 600 sq. ft.

Installation

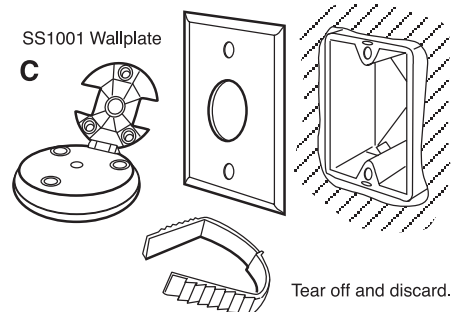
The CS1001 has several mounting options:

- A) It can be attached to the grid system of a suspended ceiling with built-in clips.
- B) It can be clipped into a hole drilled into the ceiling or panel.
- C) It can be mounted onto a wallplate (P&S Cat.# SS1001) for box mounting.

It can also be surface mounted using #8 flat-head screws.



Drill a 1-1/2" diameter hole.



Occupancy & Vacancy Sensors Ultrasonic Ceiling Sensors

Pass & Seymour



Features – US1001

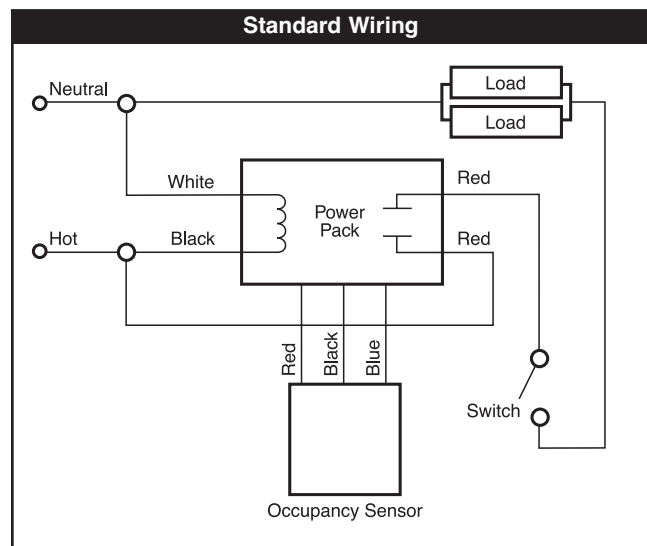
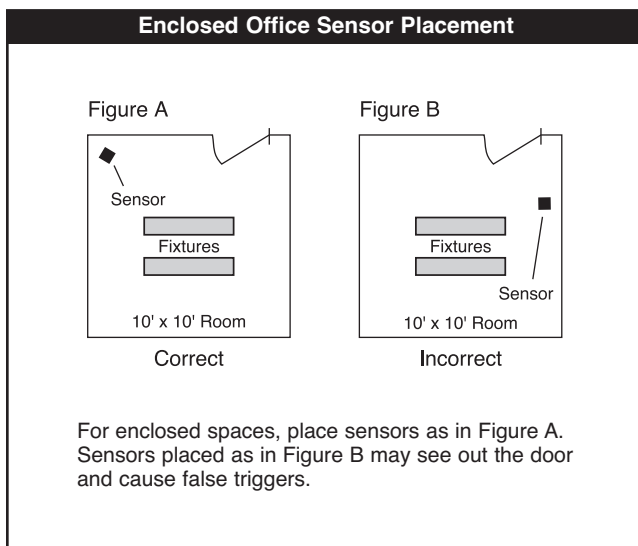
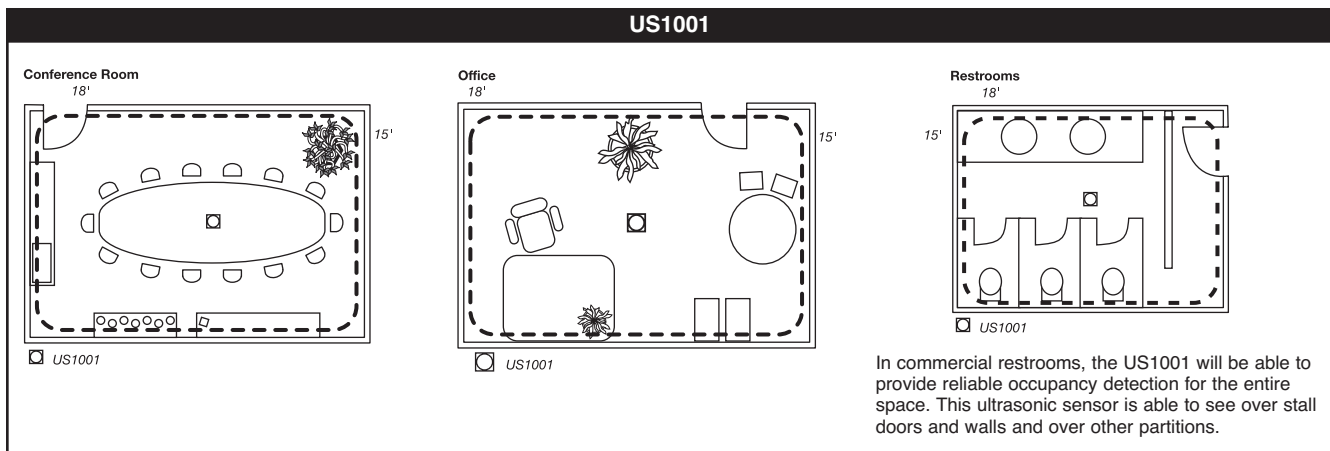
- Detection Signature Analysis provides high immunity to RFI and EMI.
- 180° coverage.
- 750 sq. ft. coverage capability.
- Adjustable sensitivity settings.
- Time delay adjustable from 15 seconds to 30 minutes.
- Solid-state, crystal controlled.
- Advanced Signal Processing Circuitry.
- Logic Key/ON bypass.
- Temperature and humidity resistant 32 kHz receivers.
- Compatible with 120VAC or 277VAC, 60 Hz lighting systems.
- Class 2 low-voltage device.
- Positive detection indicator.
- 5-year warranty.
- cULus listed.



US1001

Catalog Number	Description	Voltage	Current	Coverage	Color
Ultrasonic Ceiling Sensor					
US1001	Ultrasonic Ceiling Occupancy Sensor	24VDC	28mA	360°; 750 sq. ft.	White

Reference Page L-10 for Power Packs.

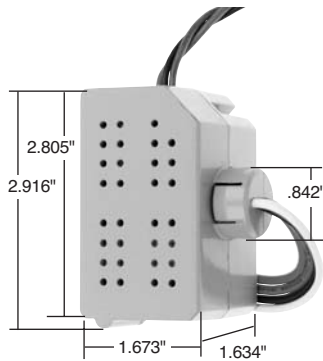


Occupancy & Vacancy Sensors Power Packs & Add-A-Relay

A cost-effective way to power Pass & Seymour/Legrand® occupancy sensors.

Pass & Seymour/Legrand power packs consist of a transformer and high-current relay in one small unit. In addition to a primary high input, power packs have a secondary output of 24VDC, 100mA which provides operating power to sensors. Upon sensing motion or insufficient light, sensors electrically close an internal circuit and send 24VDC back to the power packs or Add-A-Relays that control lighting systems. Unlike power packs, Add-A-Relay does not have transformer power supply, only an isolated relay.

Power packs can switch a maximum 20 Amps of fluorescent lighting. Both power packs and Add-A-Relay are available for 120 and 277 Volt systems.



PWP120
PWP277
AR120/277

Features

- Essential to ceiling mount sensor systems.
- Self-contained transformer and relay.
- Easy-to-install.
- Teflon-coated wire leads suitable for plenum applications.
- Secondary voltage: 24VDC; Secondary output: 64mA (PWP120/277 only).
- UL-rated 94 V0 plastic enclosure.
- 5-year warranty.
- cULus listed.

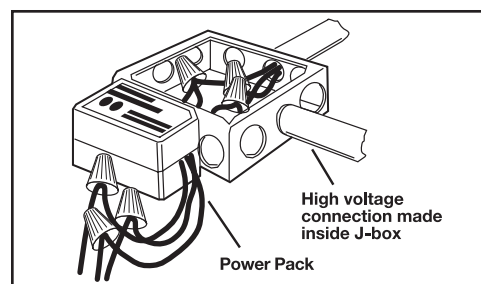
Catalog Number	Description	Input Voltage	Load Ratings (Amps)			Output
			Ballast	Incan.	Motor	
Power Packs & Add-A-Relay						
PWP120	Power Pack	120	20	13	1HP	24VDC; 64mA
PWP277	Power Pack	277	20	—	1HP	24VDC; 64mA
AR120/277	Add-A-Relay	120/277	20	13	1HP	*0

* Add-A-Relay has a current consumption of 36mA.

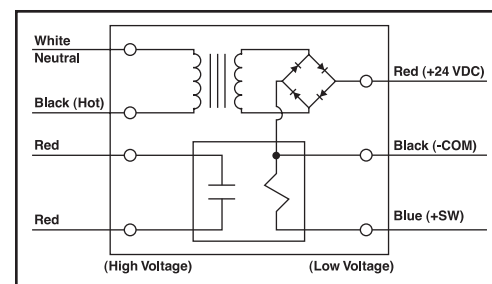
Installation

Power packs should be installed in accordance with state, local, and national electrical codes. They are designed to attach to electrical enclosures with 1/2 inch knockouts. In plenum ceilings, power packs should be installed in approved electrical enclosures. Most applications require UL listed, 18-22 AWG, 3-conductor, class 2 cable for low-voltage wiring. For plenum rated ceilings use UL listed plenum-approved cables.

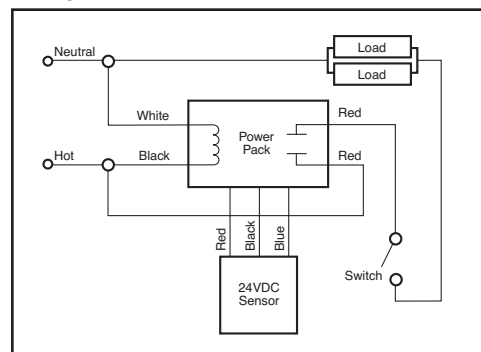
J-Box Installation



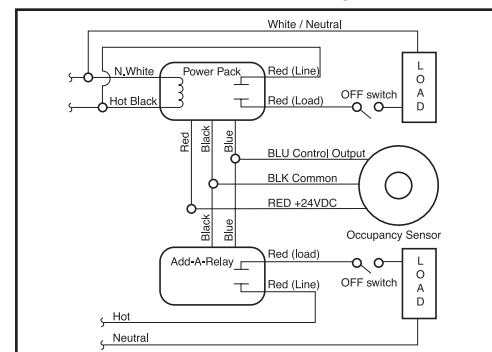
Power Pack Schematics



Ceiling Sensor with Power Pack



Sensor Schematic with Add-A-Relay



Occupancy & Vacancy Sensors Useful Calculations

Pass & Seymour



Examples of savings and payback

EXAMPLE 1

Large office using a WA1001 Passive Infrared Sensor

Six 88-watt, 3-lamp fixtures = $0.528 \text{ kW} \times \$0.086/\text{kWh}^* = \$0.04541/\text{hr}$
 Savings = 35 hours per week
 Total hours saved = 1,820 hrs/yr
Annual Savings = \$82.65; 5 Year Savings = \$413.23
 Total estimated cost including power pack: (Product and Labor) = \$140.00
Payback = 20.33 months
ROI = $\$82.65 \div \$140.00 = 59.03\%$

EXAMPLE 2

Individual office using a WS1001 Automatic Wall Switch

Three 88-watt, 3-lamp fixtures = $0.264 \text{ kW} \times \$0.086/\text{kWh}^* = \$0.02270/\text{hr}$
 Savings = 50 hours per week
 Total hours saved = 2,600 hrs/yr
Annual Savings = \$59.02; 5 Year Savings = \$295.10
 Total estimated cost: (Product and Labor) = \$54.00
Payback = 10.98 months
ROI = $\$59.02 \div \$54.00 = 109.30\%$

EXAMPLE 3

Restroom using a US1001 Ultrasonic Occupancy Sensor

Four 88-watt, 3-lamp fixtures = $0.352 \text{ kW} \times \$0.086/\text{kWh}^* = \$0.03027/\text{hr}$
 Savings = 75 hours per week
 Total hours saved = 3,900 hrs/yr
Annual Savings = \$118.05; 5 Year Savings = \$590.27
 Total estimated cost: (Product and Labor) = \$160.00
Payback = 16.26 months
ROI = $\$118.05 \div \$160.00 = 73.78\%$

*Based on 2004 US Government National average cost.

Multi-Sensor Installation

For applications requiring more than one sensor, **the load per power pack should not exceed 64mA**. Use the following table to calculate the maximum number of sensors per power pack.

WA1001	CS1001	HS1001	US1001	AR120/277
8mA	8mA	8mA	28mA	36mA

Examples:

2 x US1001(28mA) = 56mA ✓
 This is an acceptable load because it is less than 64mA.

2 x US1001(28mA) + 1 x AR120/277(36mA) = 92mA ✗
 This is **not** an acceptable load because it is greater than 64mA.