Building Automation, Inc.

Residential Wall Switch Sensors for Incandescent and CFL Lighting
Vacancy Sensor – RWSVSCFL120
Occupancy Sensor – RWSOSCFL120

Installation Instructions

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Overview
Hubbell Building Automation's Residential Vacancy and Occupancy Sensors for Incandescent and CFL Lighting use passive infrared detection and a micro-controller to maximize energy savings by turning off lights in an unoccupied room.

Specifications
Lighting Load: 120VAC: No minimum load, 800Watts maximum incandescent, 1000Watts maximum fluorescent lamps.
Time Delay: Manual adjustment behind front cover: 30 second minimum, 30 minutes maximum.
Daylight Control (Occupancy Sensor Only): Manual adjustment to set ambient light level (Photocell).
Manual Override Front Press Switch (FPS): Switches lights "on" or "off", (See Front Press switch Basic Operation Below). Note: Vacancy Sensor FPS must be pressed to turn light on.
Motion Indicator: Highly visible green LED.
Coverage Area: Approximately 900ft². See coverage area below.

Passive infrared (IR) sensors are activated by changes in IR energy in the coverage area.
The product must be installed in the line-of-sight of the occupant. The sensor should not be installed:

- Where view of occupant is obstructed
- In view of open doorways where hallway traffic may be detected and accidentally activate lights
- In view of direct sunlight or strong reflected light sources
- Above baseboard heaters or near forced air ducts
- Outdoors, in the rain, near a shower/steam source (For indoor use only)

Precautions
NOTICE: For installation by a licensed electrician in accordance with National and/or local Electrical Codes and the following instructions.

CAUTION: RISK OF ELECTRIC SHOCK. Disconnect power before installing. Never wire energized electrical components.

CAUTION: USE COPPER CONDUCTORS ONLY.

CAUTION: Use only in indoor, dry locations. Sensor's maximum operating ambient temperature = 50ºC.

Pre-installation Checklist
1. Check rating of sensor to make sure it is suitable for the application.
2. Do not install sensor if the product or lens has any visible damage.
3. If moisture condensation is evident, allow product to dry before installing.

Installation
1. DISCONNECT POWER.
2. Remove old switch if applicable.
3. For non-metallic electrical switch box, use grounding screw for ground wire connection. Secure connection to ground is necessary for the unit to operate properly.
4. Wire in accordance with the appropriate wiring diagram shown below.
5. Mount device in box and secure wall plate.
6. Restore power.

Operation / Adjustments
Note: If motion is not detected by the **RWSVSCFL120** sensor within 30 seconds of the lights turning off, the pushbutton on the switch must be pressed to turn the lights back on.
1. Remove the cover located between the sensor lens and the pushbutton by inserting a small Flathead screwdriver into the notch located on the top of the cover. Gently lift screwdriver upward to unlatch cover.
2. **Time delay:** - Turn the adjustment on the left labeled "T" fully counter clockwise to the minimum setting (30 seconds). This must be set at the minimum while testing the sensor and adjusting the sensitivity and photocell (RWSOSCFL120 only) settings. Turning the adjustment

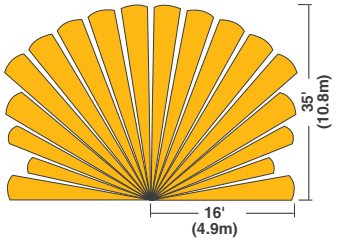
fully clockwise puts the unit into bypass mode which keeps the light on regardless of occupancy conditions or pushbutton operations. To locate the 30 minute max setting:

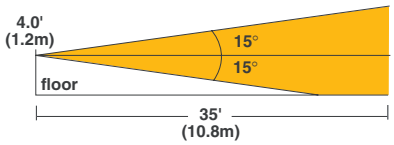
a. Turn adjustment knob fully counter clockwise
b. Turn lights on then off with the pushbutton
c. Turn adjustment knob fully clockwise – lights should turn on
d. Slowly turn adjustment knob counter clockwise until lights shut off
e. You are now at the 30 minute max setting
f. Verify by turning lights on with pushbutton

3. **Photocell (RWSOSCFL120 only)**: – The photocell is used to detect if other light sources such as sunlight, are enough to illuminate the space without turning on the lights. If use of the photocell is desired, see directions for Photocell Adjustment below. If use of the photocell is not desired, turn the photocell adjustment (located on the right labeled "A") fully clockwise to the maximum setting. This will allow the sensor to turn the lights on and off regardless of ambient light conditions.
4. Vacate the room until the lights turn off.
5. Re-enter the room; lights should turn on immediately. The LED will flash every 3 seconds upon detection of a person. If the lights do not turn on immediately, verify correct sensor wiring including a secure ground connection.
6. **Sensitivity:** - The sensitivity adjustment is in the center and marked "S". Adjust the sensitivity setting to avoid unwanted detection such as hallway traffic or adjacent movement. Turning the setting counter clockwise will decrease sensitivity while turning it clockwise will increase it. Max sensitivity can be achieved by turning fully clockwise then counter clockwise ¼ turn.
7. Adjust the time delay to the desired setting by turning the timer adjustment clockwise. Maximum setting is 30 minutes. See item #2 above.

Photocell Adjustment (RWSOSCFL120 only)

1. Adjust light level in the room to a level which you want the sensor to turn on by using the shades, blinds, etc.
2. Set the time delay to the minimum setting by turning the adjustment fully counter clockwise.
3. Turn the Ambient Control setting fully counter clockwise. Leave the room and allow the lights to turn off.
4. Re-enter the room and slowly turn the ambient control clockwise until the lights switch on. NOTE: Avoid blocking the lens and sensor while making this adjustment.
5. Ambient threshold is now set at the ambient light level present at the sensor.





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Innovative, Integrated and Simple.

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