

Single Pole (One Location) or Multi-Location
Designer Wall Switch Vacancy Sensor
 California Title 20 and 24 Compliant
 Cat. No. ODS10-TD
 Incandescent - 800W - 6.67A @ 120V
Fluorescent - 1200VA - 10A @ 120V - Fluorescent - 2700VA - 10A @ 277V
 Supplemental - 1/4hp - 5.8A @ 120V
No Minimum Load Required
 Compatible with electronic and magnetic ballasts, electronic and magnetic low-voltage ballasts, incandescent lamps, and fans.
INSTALLATION INSTRUCTIONS

WARNINGS AND CAUTIONS:

- **TO AVOID FIRE, SHOCK, OR DEATH; TURN OFF POWER AT CIRCUIT BREAKER OR FUSE AND TEST THAT THE POWER IS OFF BEFORE WIRING!**
- **DO NOT** control a load in excess of the specified ratings. Damage to the unit, fire, electric shock, personal injury or death can occur. Check your load ratings to determine suitability for your application.
- To be installed and/or used in accordance with electrical codes and regulations.
- If you are not sure about any part of these instructions, consult an electrician.

WARNINGS AND CAUTIONS:

- Do not install this unit to control a receptacle.
- Do not touch the surface of the lens. Clean outer surface with a damp cloth only.
- The Cat. No. ODS10-TD vacancy sensor is intended to replace a standard light switch.
- Use this device with **COPPER OR COPPER CLAD WIRE ONLY**.

TOOLS NEEDED TO INSTALL YOUR SENSOR

- Slotted/Phillips Screwdriver Electrical Tape Pliers
 Cutters Small Slotted Screwdriver

FEATURES

- CEC Title 20 and 24 Compliant
- Manual ON / Auto OFF
- Time Delay: 30 seconds to 30 minutes
- LED (Red): Visible status indicator for determining sensing technology operation
- Vacancy Confirmation: a 30 second grace period is enabled in case of False OFF
- Adjustable horizontal blinders for both left and right PIR masking.
- Leviton's Decora® style design
- Switches electronic ballasts
- Low Profile, tamper-resistant lens

DESCRIPTION

Leviton Cat. No. ODS10-TD, Designer Wall Switch Vacancy Sensor, is designed to detect motion from a heat-emitting source (such as a person in a room) within its field-of-view (monitored space) and automatically switch lights OFF when no motion is detected and the scheduled time-delay has expired.

Cat. No. ODS10-TD is UL and cUL listed.

The Vacancy Sensor senses motion within its coverage area of 2100 sq. ft (195.1 m²) maximum and controls the connected lighting. This is a self-contained device which provides sensing and light control. The Vacancy Sensor Manual ON feature will only turn the lights ON when the user presses the switch, and keep the lights ON for as long as motion is detected.

The Vacancy Sensor uses a small semiconductor heat detector that resides behind a multi-zone optical lens. This Fresnel lens establishes dozens of zones of detection. The sensor is sensitive to the heat emitted by the human body. In order to trigger the sensor, the source of heat must move from one zone of detection to another.

The device is most effective in sensing motion across its field-of-view, and less effective sensing motion towards or away from its field-of-view (**refer to Field-of-View diagrams**). Keep this in mind when selecting the installation location (**refer to Field-of-View diagrams**).

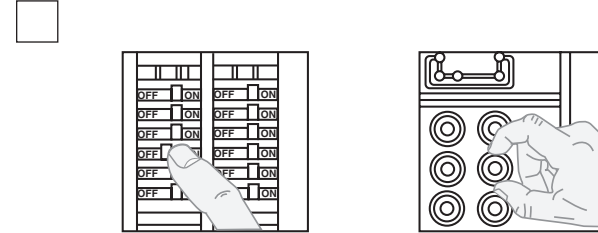
Note that vacancy sensors respond to rapid changes in temperature, so care should be taken not to mount the device near a climate control source (i.e. radiators, air exchanges, and air conditioners). Hot or cold drafts will look like body motion to the device and will trigger it if the unit is mounted too close. **It is recommended to mount the Vacancy Sensor at least 6 ft. away from the climate control source.** The device can be mounted in a single gang wallbox.

In addition, it is also recommended NOT to mount the Vacancy Sensor directly under a large light source. Large wattage bulbs (greater than 100W incandescent) give off a lot of heat and switching the bulb causes a temperature change that can be detected by the device. Mount the Vacancy Sensor at least 6 ft. away from large bulbs. If it necessary to mount the device closer, lower the wattage of the bulb directly overhead.

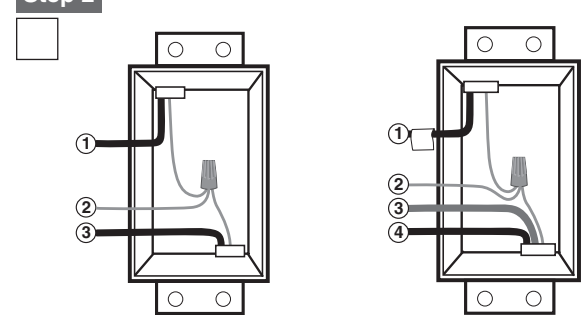
INSTALLING YOUR SENSOR

NOTE: Use check boxes when Steps are completed.

Step 1 **WARNING: TO AVOID FIRE, SHOCK, OR DEATH; TURN OFF POWER** at circuit breaker or fuse and test that power is off before wiring!



Step 2 **Identifying your wiring application (most common):**



Single-Pole

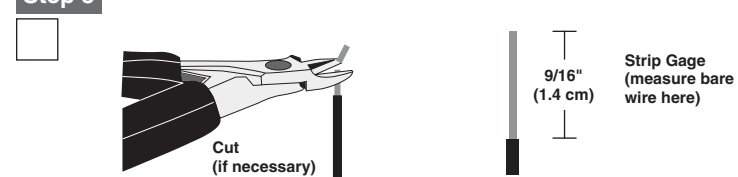
1. Line (Hot)
2. Ground
3. Load

3-Way

1. Line or Load (See important* instruction)
2. Ground
3. First Traveler – note color
4. Second Traveler – note color

IMPORTANT: For 3-Way applications, note that one of the screw terminals from the old switch being removed will usually be a different color (Black) or labeled Common. Tag that wire with electrical tape and identify as the common (Line or Load) in both switch wall boxes.

Step 3 **Preparing and connecting wires:**

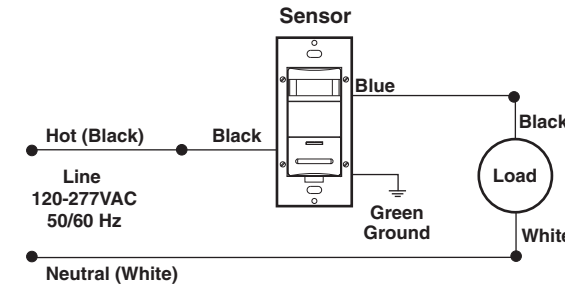


- Pull off pre-cut insulation from sensor leads.
- Make sure that the ends of the wires from the wall box are **straight (cut if necessary)**.
- Remove insulation from each wire in the wall box as shown.

Step 4 **Installing your Sensor – Single-Pole Application:**



NOTE: The Cat. No. ODS10-TD requires a ground wire to operate properly. If there is no ground wire, ensure electrical box is grounded and attach ground wire to box with a screw. If the ground wire is floating this device will not work.



WIRING SENSOR:

Connect wires per WIRING DIAGRAM as follows: Screw wire connector on clockwise making sure there are no bare conductors below the wire connectors. Secure each connector with electrical tape.

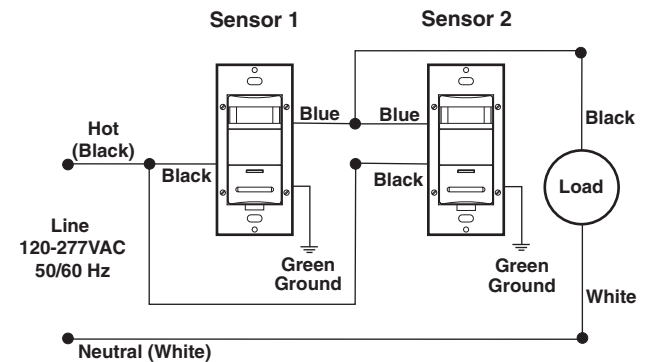
- Green or bare copper wire in wall box to Green lead.
- Line Hot wall box wire to Black lead.
- Load wall box wire to Blue lead.

NOTE: Allow 1 minute for warm-up after connecting and energizing.

Step 5 **Installing your Sensor – 3-Way Wiring Application:**



NOTE: The Cat. No. ODS10-TD requires a ground wire to operate properly. If there is no ground wire, ensure electrical box is grounded and attach ground wire to box with a screw. If the ground wire is floating this device will not work.



NOTE: Either sensor can turn the lights ON. Both sensors must time out to OFF.

WIRING SENSOR 1:

Connect wires per WIRING DIAGRAM as follows:

- Green or bare copper wire in wall box to Sensor 1 Green lead.
- Line Hot (common) wall box wire identified (tagged) when removing old switch and First traveler from Sensor 2 to Sensor 1 Black lead.
- Second Traveler wall box wire from Sensor 2 to Sensor 1 Blue lead.

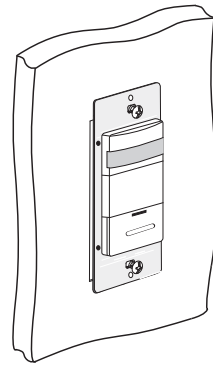
WIRING SENSOR 2:

Connect wires per WIRING DIAGRAM as follows:

- Green or bare copper wire in wall box to Sensor 2 Green lead.
- Load wall box wire identified (tagged) when removing old switch and Second Traveler from Sensor 1 to Sensor 2 Blue lead.
- First Traveler Line Hot from Sensor 1 to Sensor 2 Black lead.

NOTE: Allow 1 minute for warm-up after connecting and energizing.

Step 6 Testing your Sensor prior to completely mounting in wall box:



NOTE: Dress wires with a bend to relieve stress when mounting device.

- Position all wires to provide room in outlet wall box for device.
- Partially secure device using long mounting screws provided.
- Restore power at circuit breaker or fuse.

NOTE: Allow approximately 1 minute for charge-up. After charge-up the lights will turn ON. If the lights turn ON and the LED blinks when a hand is moved in front of the lens, then the sensor was installed properly. If the operation is different, refer to the **TROUBLESHOOTING** section.

NOTE: To avoid PERMANENT DAMAGE to the unit, be careful NOT TO OVERTURN the control knobs or levers when setting the Sensor. The controls can be accessed by removing the wallplate (if applicable) and control panel cover (refer to **Control Panel Diagram**). Use a small straight blade screwdriver to adjust knobs and a finger to adjust the blinder levers.

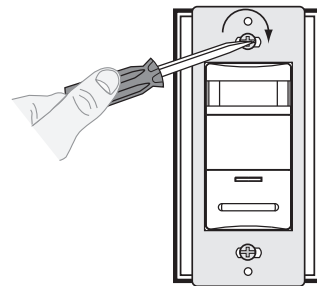
NOTE: DO NOT press in on blinder levers or use excessive force (refer to **Control Panel Diagram**).

- Attach the Control Panel cover when the desired settings are complete.

Step 7 Device Mounting:
TURN OFF POWER AT CIRCUIT BREAKER OR FUSE.



Installation may now be completed by tightening mounting screws into wall box. Attach wallplate.



Step 8 Restore Power:



Restore power at circuit breaker or fuse. Installation is complete. Leave the room and the lights will turn OFF after the selected time-out expires.

FEATURES

BLINDERS: The blinders can narrow the field-of-view of the device to prevent unwanted activation from traffic in adjacent space. There are two blinders, and each operate independently. To operate the blinders, use a small screwdriver to move the blinder adjustment levers toward or away from the center of the device.

The blinder levers are found above the control knobs and below the text 'BLINDERS' on the control panel. With both levers moved fully towards the center, the field-of-view is narrowed to 60°. With both levers moved fully away from the center, the field-of-view is at a maximum 180° (refer to **Control Panel Diagram**).

TIME-DELAY: Cat. No. ODS10-TD will turn lights ON only when manually turned ON by the user. When motion is no longer detected, the Sensor Unit will wait a certain amount of time and then turn the lights OFF. This wait time is called "time-out".

The "time-out" is selected from four (4) preset values. Pointing the arrow at one of the markings on the face chooses the value of time. The following selections are available:

Face Marking	Value of Time
(/) Slash Mark	30 second fixed time-out used for performing a walk-test.
1	10 minute time-out
2	20 minute time-out
3	30 minute time-out

The "time-out" is factory preset to ten (10) minutes. Refer to **Control Panel Diagram**.

NOTE: All time durations mentioned in the instructions are approximate within 10 seconds.

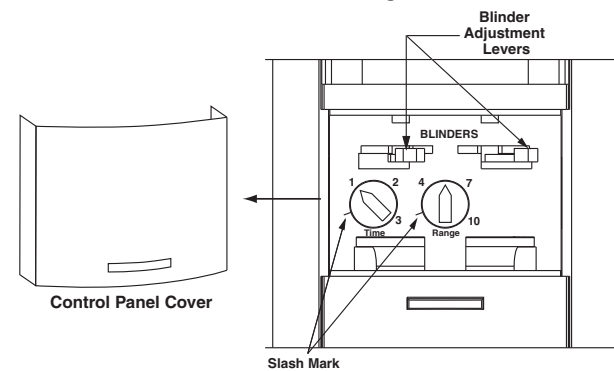
VACANCY CONFIRMATION: The ODS10-TD Vacancy Sensor has a 30 second grace period when the lights turn OFF. If motion is detected during this 30 second time frame the lights will automatically turn back ON. This grace period exists in case a False-OFF occurs where the lights go off in a room while the room is still occupied.

SETTINGS

MANUAL ON MODE: This Vacancy Sensor only operates in Manual ON mode.

RANGE: To decrease detection range and sensitivity, rotate the knob CCW (refer to **Control Panel Diagram**). The detection range can be adjusted from 100% down to 36%.

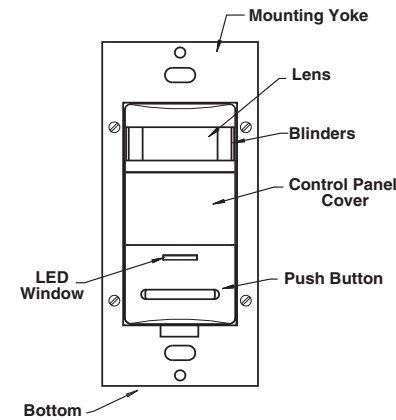
Control Panel Diagram



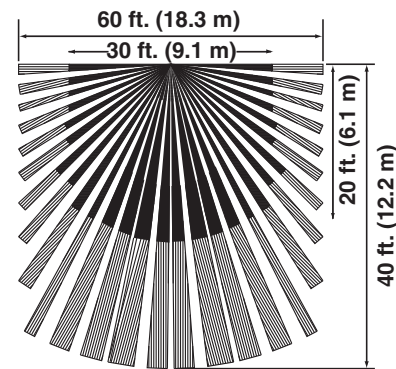
OPERATION

MANUAL ON/AUTO OFF: The ODS10-TD Vacancy Sensor has a push button switch that will toggle the lights ON and OFF (refer to figure below). The lights will only turn ON when the button is pressed and remain ON in the presence of motion. In the absence of motion, the sensor will time-out and turn the lights OFF.

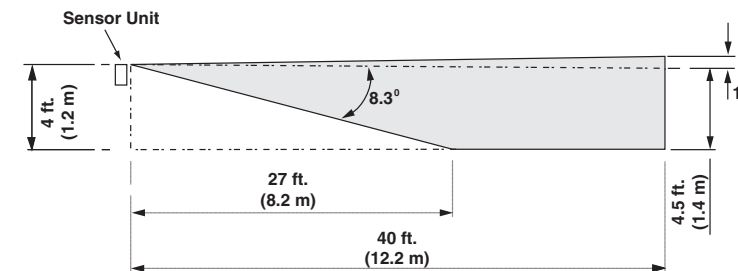
VACANCY CONFIRMATION: The ODS10-TD Vacancy Sensor has a 30 second grace period when the lights turn OFF. If motion is detected during this 30 second time frame the lights will automatically turn back ON.



Field - of - View (Horizontal)



Side (Vertical) Field - of - View



TROUBLESHOOTING

1. If there is no response from the unit (the light never turns ON and the LED never blinks) 1 1/2 minutes after power is applied, then uninstall device and verify there is a ground connection at the wallbox. If there is a ground connection, verify wiring.
2. If the lights are nuisance tripping ON from hallway or other unwanted locations: Determine if the blinders can be used to block the unwanted motion, or try lowering the PIR Range Control. Rotate the knob counterclockwise and repeat as needed.
3. If the lights constantly stay ON, even when the room is unoccupied:
 - A. Check the Time setting. See how this time compares to how long the lights stay ON.
 - B. Try lowering the Range Control. Rotate the knob CCW about 30°.
 - D. Be sure to use the Blinders to block any unwanted hallway traffic.
 - E. Check for reflected, radiated heat/motion such as incandescent bulbs, mirrors, HVAC, swinging fixtures, moving mechanical parts, flowing hot water within view, overhead doors opening closing, etc.
 - F. Check for adjacent HVAC and/or heater ducts.
4. If the sensor is turning lights OFF (False OFF)
 - A. Check time delay and extend to 20 or 30 minutes.
 - B. Check range sensitivity of PIR and increase.
5. Be sure to note Minor and Major Motion FOVs. Designs should be to Minor Motion FOV for best functioning devices.
6. Be sure to check the location of the sensors and anything that could be affecting them.
7. For additional information call Leviton's Technical Support Line.

PRODUCT INFORMATION

- For technical assistance contact us at 1-800-824-3005
- Visit our website at www.leviton.com

FCC COMPLIANCE STATEMENT

This device complies with Part 15 of the FCC Rules. Operation is subject to following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation of the device.

This equipment has been tested and found to comply with the limits for a Class B Digital Device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment OFF and ON, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving Antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/tv technician for help.

FCC CAUTION

Any changes or modifications not expressly approved by Leviton Manufacturing Co., Inc., could void the user's authority to operate the equipment.

LIMITED 5 YEAR WARRANTY AND EXCLUSIONS

Leviton warrants to the original consumer purchaser and not for the benefit of anyone else that this product at the time of its sale by Leviton is free of defects in materials and workmanship under normal and proper use for five years from the purchase date. Leviton's only obligation is to correct such defects by repair or replacement, at its option, if within such five year period the product is returned prepaid, with proof of purchase date, and a description of the problem to **Leviton Manufacturing Co., Inc., Att: Quality Assurance Department, 201 North Service Road, Melville, New York 11747**. This warranty excludes and there is disclaimed liability for labor for removal of this product or reinstallation. This warranty is void if this product is installed improperly or in an improper environment, overloaded, misused, opened, abused, or altered in any manner, or is not used under normal operating conditions or not in accordance with any labels or instructions. **There are no other or implied warranties of any kind, including merchantability and fitness for a particular purpose, but if any implied warranty is required by the applicable jurisdiction, the duration of any such implied warranty, including merchantability and fitness for a particular purpose, is limited to five years. Leviton is not liable for incidental, indirect, special, or consequential damages, including without limitation, damage to, or loss of use of, any equipment, lost sales or profits or delay or failure to perform this warranty obligation.** The remedies provided herein are the exclusive remedies under this warranty, whether based on contract, tort or otherwise.

WEB VERSION