Smart Wallbox Multi-Technology Sensors:
24V with 0-10V Dimming Control
Cat. No. ODDMT-ML

LEVITON®

WARNINGS:
- **TO AVOID FIRE, SHOCK, OR DEATH; TURN OFF POWER AT CIRCUIT BREAKER OR FUSE AND TEST THAT POWER IS OFF BEFORE WIRING!**
- To be installed and/or used in accordance with appropriate electrical codes and regulations.
- If you are unsure about any part of these instructions, consult an electrician.

CAUTION:
- For indoor applications only.
- To avoid damage to the product, DO NOT use disinfecting products, including foggers, sprays or other types of atomized cleaning agents. DO NOT spray liquid onto the product. To clean use a damp cloth with mild soap.
- **SAVE THESE INSTRUCTIONS.**

DI-003-ODDMT-02A

Product Description

Leviton Cat. No. ODDMT-ML, wall switch and dimming Occupancy Sensor is designed for use with a power pack (OPP20 or OSA20) or other Leviton low voltage (24V) source and uses Passive Infrared (PIR) and Microphonics detection technology to monitor a room for occupancy. The PIR uses a specialized segmented lens that 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 the lights ON. The Microphonics technology will listen for human activity in the space and will help keep lights ON while the space is occupied. Lighting levels can be manually adjusted using the dimming bar next to the switch. The lights will remain ON as long as there is an occupant moving through the sensor zones or while human activity in the space can be heard. ODDMT-ML can also be programmed to vacancy mode (Manual ON/Auto OFF) for installations where Manual ON switching is required for Title 24 applications. The ODDMT-ML provides a 180° field of view with a maximum coverage area of approximately 1100 square feet. The maximum sensing distance in front of the sensor is 30-40 feet, and 15-20 feet on either side. A "minor motion" zone detects 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. Simple configuration can also be applied using push-button setup for several popular pre-configured options. ODDMT-ML is also equipped with a photocell for daylighting which is programmable using the Leviton Smart Sensor App.

Before Installation

- Installs into standard single gang wall boxes.
- Supports multi-gang installations.
- Ivory, light almond, black, red, and gray faceplates are available with a color change kit (sold separately).
- Decora® wallplate not included.
- Refer to wiring diagram of low voltage source (OPP20 / OSP20).
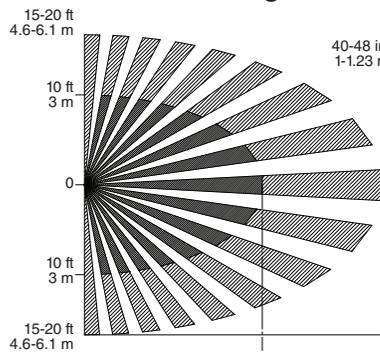
FOR OPTIMAL PERFORMANCE:
The ODDMT-ML sensor lens establishes dozens of zones of detection. The sensor is sensitive to the heat emitted by the human body. In order to trigger the sensor, the PIR must be triggered first. Once ON, either sensing technology will keep the lights ON. Both PIR and Microphonic sensitivity can be adjusted to optimize detection ability based on room size. The sensor will turn OFF after 45 min with no PIR detection. 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. Keep this in mind when selecting the installation location. Note that occupancy 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 occupancy sensor at least 6 ft away from a climate control source. In addition, it is also recommended NOT to mount the occupancy 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 occupancy 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.

0-10V CONTROL WIRING INSTRUCTIONS
For 0-10V control wiring: connect the Violet wire to the + 0-10V line and the pink wire to the 0-10V common using Class 1 or Class 2 wiring methods as indicated in these instructions, ballast/fixture/driver instructions or ballast/fixture/driver label markings. Observe all requirements of any authority having jurisdiction with respect to wire type, sleeving, isolation methods, and the like. Separation must be provided if Class 2 circuit is installed together with Class 1, refer to NEC/CEC code for allowable methods and specifications.
NOTE: Depending on date of manufacture, the pink 0-10V wire may be gray.

Horizontal Beam Diagram   Vertical Beam Diagram
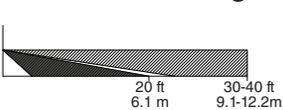
Major motion coverage 1100 ft^2 (102m^2)
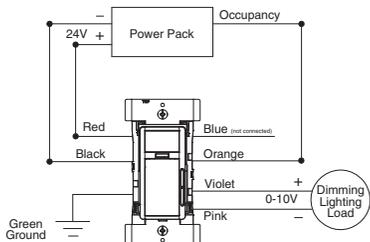Minor motion coverage 400 ft^2 (37.2m^2)

Installation

WARNING: TO AVOID FIRE, SHOCK, OR DEATH; TURN OFF POWER at circuit breaker or fuse and test that power is off before wiring!
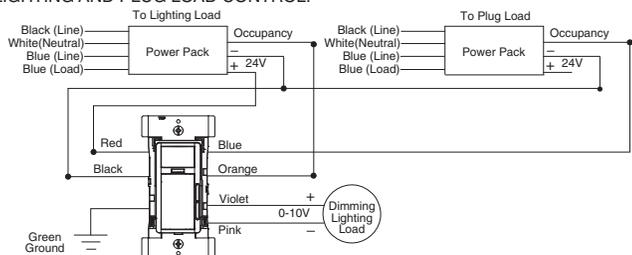
1. Strip wires 3/4 in and connect as per wiring diagram. Ensure wires are firmly attached and there is no exposed copper.

WIRING DIAGRAMS
FOR LIGHTING LOADS:

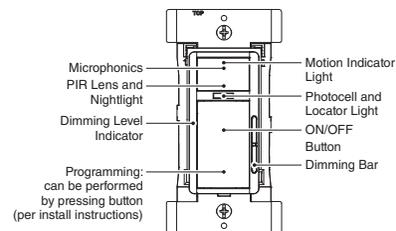FOR LIGHTING AND PLUG LOAD CONTROL:

NOTE: Depending on date of manufacture, the pink 0-10V wire may be gray

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2. Gently place the wires and your device into the wall box and attach with screws provided.
3. If desired, change switch color. (Sold separately.)
4. Restore power and test ON/OFF operation. Locator light should be ON when switch is in the OFF state.
5. Install Decora wallplate (not included).
6. ODDMT-ML is designed to work and be fully functional right out of the box, settings can be adjusted using the Leviton Smart Sensor App or simple push button programming.
7. Using the Leviton Smart Sensor App or push button programming, you can now configure the sensor to your preferred settings. (Leviton Smart Sensor App, downloadable from Google Play™ or the Apple App Store®, using any Bluetooth™ enabled Android™ or iOS Device). Operating mode, sensor sensitivity, and sensor timeout can be quickly adjusted. For more advanced settings such as daylighting and nightlight configuration, the Leviton Smart Sensor App will need to be used for setup and adjustments.
8. Additional Smart Wallbox Sensors can be added to the room for 3-way, 4-way, or greater applications. The devices can be linked together to control the room in unison and expand the FOV coverage. Forming a system is simple using Leviton's Push to Pair (P2P) technology. A system of up to 5 devices can be built. To form the system:
   a. Ensure all devices are powered up and can control their own load where necessary.
   NOTE: Additional devices can also act as a remote and do not need to control a load.
   b. Press the ON/OFF button of one of the devices for 15 seconds and release the button when the LED blinks YELLOW.
   NOTE: After 5 seconds, light behind PIR lens will blink BLUE and then alternate between BLUE and RED before blinking YELLOW
   c. The Network is created/opened successfully when the device blinks BLUE/YELLOW.
   NOTE: wait to add additional device(s) until the initial device blinks BLUE/YELLOW; If there is more than one device already in the network, all devices in network will blink BLUE/YELLOW when the network is opened successfully.
   d. Go to additional device(s) you want joined to the initial device, and press the ON/OFF button until the LED blinks yellow.
   NOTE: only one room should go through P2P process at a time to avoid accidently adding device(s) from adjacent rooms.
   e. Repeat as necessary for other devices (maximum of 5 devices).
   f. The P2P process is complete when the LED on the newly added device(s) blinks BLUE/YELLOW pattern and the load turns ON

About Push to Pair (P2P):
- The P2P pairing process takes about 30 seconds to complete and the P2P enrollment process times out after 2 minutes.
- If ON/OFF button is not released while LED is blinking YELLOW (between 15-20 seconds), the LED will then start blinking RED (between 20-25 seconds). Release the button and start over.
- Additional devices do NOT need to be on the same circuit, they will connect and operate together remotely. Additional devices do not need to be tied to a load and can act as a remote.
- For 3-way or more applications, the additional sensors can be used to expand zone capacity; sensitivity can be configured for each device based on room size and targeted FOV coverage.
- Additional devices can be added at any time—just repeat the process above to add additional devices to your system.
- If a device needs to be removed from the system, reset Bluetooth following the instructions under Configuration and Programming instructions.
- If unsuccessful pairing devices, try resetting the Bluetooth for each device; see Bluetooth reset under Configuration and Programming instructions.

Microphonics
PIR Lens and Nightlight
Dimming Level Indicator
Programming: can be performed by pressing button (per install instructions)
Motion Indicator Light
Photocell and Locator Light
ON/OFF Button
Dimming Bar

Operation

PUSH-BUTTON: ODDMT-ML has a push-button switch that will toggle the lights ON or OFF. When mode is set to Auto ON / Auto OFF, the lights will automatically turn ON when occupancy is detected and will turn OFF automatically after occupancy is no longer detected and the timeout has expired. If mode is set to Manual ON / Auto OFF, the lights will only turn ON when the push button switch is pressed; the lights will turn OFF automatically after occupancy is no longer detected and the timeout has expired. If the lights are ON, the lights can be turned OFF when the button is pressed. The lights will stay OFF (regardless of motion detected) until the timeout expires. After the timeout expires, the lights will turn ON when the next motion is detected. This is useful for slide or film presentations. When using a separate power pack for plug load control, the lights can be turned OFF and the plug load receptacles will remain "live" until occupancy is no longer detected.

DIMMING BAR: The lights can manually be dimmed up or down by pressing the dimming bar. To dim the lights down, press DOWN on the dimming bar and press UP to increase the brightness.

NOTES:
- The Motion Indicator light will blink RED for 1 second each time motion is detected.
- In Manual On mode, the button must be pressed to turn the lights ON. In the absence of motion, the unit will time out and turn the lights OFF.

Configuration and Programming

1. The ODDMT-ML Sensor is designed to work out of the box in default settings. Changes to these settings and additional product configuration can be performed using the Leviton Smart Sensor App, downloadable from Google Play™ or the Apple App Store®, using any Bluetooth™ enabled Android™ or iOS Device.
   a. To pair to device using the Leviton Smart Sensor App:
      i. Press and hold the ON/OFF button for 2-5 seconds; when the light behind the PIR lens blinks BLUE, release the button.
      ii. Open the Leviton Smart Sensor App and connect to the device.
      iii. The device can also be found by scanning for nearby devices; devices can be identified in the app to confirm you are connected to the right sensor.
   b. Use the Leviton Smart Sensor App to:
      i. Set operating mode to Auto ON / Auto OFF (default) or Manual ON / Auto OFF.
      ii. Adjust the sensitivity of the sensor to increase or decrease Field of view coverage area pending the room size (100% for larger spaces approaching 1100 sq ft).
      iii. Adjust timeouts (amount of time lights/load will turn OFF after occupancy is no longer detected).
      iv. Activate the night light and its operating mode; selection of custom night light color.
      v. Dimming configuration including partial ON and partial OFF levels and timeouts.
      vi. Add daylighting and select target levels for daylighting.
      vii. Set a security code to lock configuration.
      viii. See Leviton Smart Sensor App for additional settings and other programming options.
2. If the installer does not have access to a Bluetooth enabled Android or iOS Device, popular preset product configuration can also be made using simple push button commands:
   a. If wall plate is attached, remove first. With the wallplate removed, pinch sides of sensor near bottom tabs to release front cover of sensor.
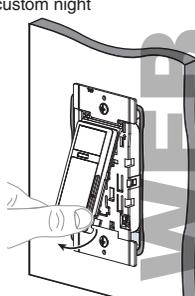
b. With the front faceplate of the sensor removed, push both buttons on front of sensor simultaneously for 10-15 seconds (note: after 5 seconds, a light will blink BLUE and then alternate between BLUE and RED) and release when the Locator Light is blinking GREEN.

Locator Light

Top Button
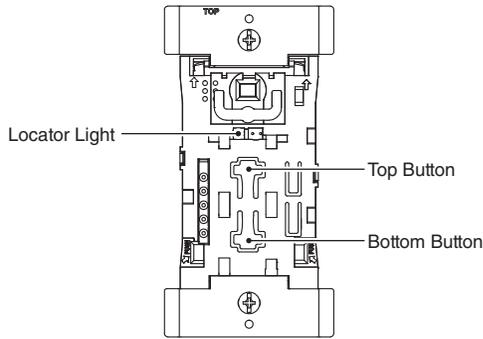
Bottom Button

c. Push the bottom button to move to the next automatic setting using the table below as a guide.
d. When at the desired setting, press and hold the bottom button again for 5 seconds (until the GREEN LOCATOR light turns ON), when the button is released, the light will flash the number of times as the setting selected; the sensor is now saved in that configuration.
e. The front cover can now be reattached. Insert the top tabs and push in bottom tabs to attach.
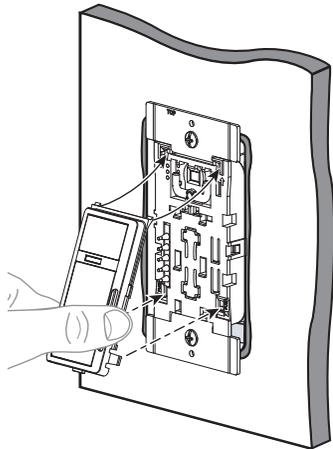
NOTES:
• Use the number of light blinks to determine which user mode the sensor is set to. If pressed more than 8 times, it will cycle back to the start of the list.
• Auto ON/Auto OFF (10 min timeout and 1 button press) is the DEFAULT MODE.

3. Daylighting and Night Light: The ODDMT-ML is equipped with a photocell for daylighting and also has a built in night light that can be turned ON and configured using the Leviton Smart Sensor App.

4. Bluetooth Reset: Resets any security settings but preserves lighting and mode settings.
  a. Push button on switch for approximately 20-25 seconds until the locator light is flashing RED.
    NOTE: After 5 seconds, light behind PIR lens will blink BLUE and then alternate between BLUE and RED; at 10-15 seconds will then blink GREEN.
  b. When the light flashes RED, release the button.
  c. The device will reset and turn off when complete.
  d. When device turns back on it will have no password set.

What to do if...

• If sensor does not trigger when entering the room or space, increase the sensitivity level of the PIR and/or check the daylighting settings (increase the daylighting level).
• If the lights constantly stay ON even when room is unoccupied:
  - Check the Time Out setting and confirm set to desired time.
  - Try lowering the sensor Microphonics and/or PIR sensitivity; if problem persists, try lowering again.
  - Check for reflected heat/motion as sensor may be seeing motion through a window.
  - Check for adjacent HVAC and/or heater ducts.

SPECIFICATIONS

Input Voltage/Frequency	12-24VDC

Input Current

24V	0.02A
120-277V	N/A

Load Ratings

LED, CFL, Electronic Ballast @ 120V	N/A
LED, CFL, Electronic Ballast @ 277V	N/A
Magnetic Ballast @ 120V	N/A
Magnetic Ballast @ 277V	N/A
Resistive, Tungsten @ 120V	N/A
Resistive, Tungsten @ 277V	N/A
Motor @ 120V	N/A
Motor @ 277V	N/A
IP Rating	IP10
Network Connections	BLE 4.2, BLE 5.0
Operating Temperature	0°C - 40°C (32°F - 104°F)
Storage Temperature	-40°C to 85°C (-40°F - 185°F)
Purpose of Control	Energy Management Equipment
Action Control Type	1
Pollution Degree	2
Impulse Voltage	4000V

INDICATOR LIGHT DESCRIPTIONS

LED	Location	Action / Definition
RED	Behind PIR Lens	Blinks ON for 1 second upon PIR detection
RED	Behind PIR Lens	Blinking RED: Device in Bluetooth reset; continues until reset is complete then stops
BLUE	Behind PIR Lens	Blinking BLUE LED: Device BLE in Pairing Mode
BLUE / RED	Behind PIR Lens	Alternating BLUE/RED: Device in Installation/Test Mode (Factory Only)
GREEN	Behind PIR Lens	Blinks ON for 1 second upon Microphonics detection
GREEN	Behind PIR Lens and Locator	GREEN light behind PIR lens / Locator LED blinking according to Menu Mode: Device is in Manual Configuration mode, number of LED blinks shows which mode device is in
GREEN	Behind PIR Lens, Locator and Dimming Bar on Side	Blinking GREEN LEDs indicates device is in identify mode
GREEN / BLUE	Behind PIR Lens	Alternating GREEN/BLUE during 1 minute Daylight Calibration
GREEN / BLUE	Behind PIR Lens	GREEN/BLUE blinks for 2 seconds every 30 seconds when Daylighting is active
YELLOW	Behind PIR Lens	Blinking YELLOW LED indicates device is in mesh pairing mode.
YELLOW / BLUE	Behind PIR Lens	Alternating YELLOW / BLUE indicates device(s) have joined a network

Button Press	Locator Light Blinks	Operating Mode	PIR Sensitivity	Microphonics Sensitivity	Timeout	Daylighting and Night Light
1 *Default operation	1	Auto ON / Auto OFF	75%	75%	20mins	OFF & OFF
2	2	Auto ON / Auto OFF	75%	75%	10mins	OFF & OFF
3	3	Auto ON / Auto OFF	75%	OFF	20mins	OFF & OFF
4	4	Auto ON / Auto OFF	75%	50%	20mins	OFF & OFF
5	5	Auto ON / Auto OFF	100%	75%	20mins	OFF & OFF
6	6	Auto ON / Auto OFF	100%	100%	20mins	OFF & OFF
7	7	Manual ON / Auto OFF	75%	75%	20mins	OFF & OFF
8	8	Manual ON / Auto OFF	75%	75%	10mins	OFF & OFF
9	9	Manual ON / Auto OFF	75%	OFF	20mins	OFF & OFF
10	10	Manual ON / Auto OFF	75%	50%	20mins	OFF & OFF
11	11	Manual ON / Auto OFF	100%	75%	20mins	OFF & OFF
12	12	Manual ON / Auto OFF	100%	100%	20mins	OFF & OFF

For Technical Assistance Call: 1-800-824-3005 (USA Only) or 1-800-405-5320 (Canada Only) www.leviton.com