

Decora® Wall Switch Multi-Technology Occupancy Sensor



OSSMT-MD/GD

BASIC OPERATION

Occupancy sensors have two tasks: keeping the lights ON while the space is occupied and turning the lights OFF when unoccupied.

The Passive Infrared (PIR) sensors provide immunity to false ON through a specialized Fresnel lens which 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 Ultrasonic (U/S) sensors provide maximum sensitivity and range in difficult spaces with irregular shaped rooms and partitions that can block the PIR field-of-view. A pair of U/S sensors will detect Doppler shifts caused by motion in a space preventing false OFF. These sensors are more sensitive to small movements since they do not rely on zones.

APPLICATIONS

The Leviton Decora® Wall Switch Multi-Technology Occupancy Sensor (OSSMT) is used to provide automatic lighting control for energy savings and convenience in a variety of commercial applications:

- Retrofit
- Private and executive offices
- Conference rooms
- Storage areas
- Restrooms
- Classrooms
- Lounges
- Training areas
- Multi-location switching (similar to 3-way)

SELF-ADAPTIVE TECHNOLOGY

Designed for “install-and-forget” use, the OSSMT automatically analyzes room conditions and adapts to errors or changing environment.

HOW THE OSSMT-MD AUTOMATICALLY ADAPTS

| CONDITION | EXAMPLE | ADAPTIVE REACTION |
|--|---|---|
| False-ON: Sensor incorrectly turns the lights ON | The sensor detects movement in the corridor or hallway and the room light turns ON | After an initial movement is sensed, if another movement is not sensed within the timer setting the delayed off-time setting is automatically reduced |
| False-OFF: Sensor incorrectly turns the lights OFF | The sensor does not detect movement because an occupant is virtually motionless and the lights turn OFF | If motion is detected shortly after the lights go OFF, the current delayed off-time setting is increased |

OSSMT



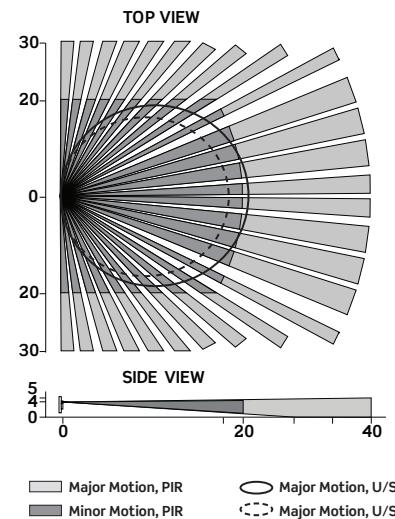
PRODUCT DATA

FEATURES

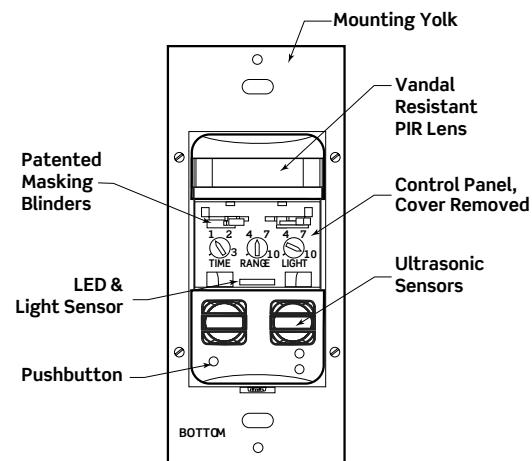
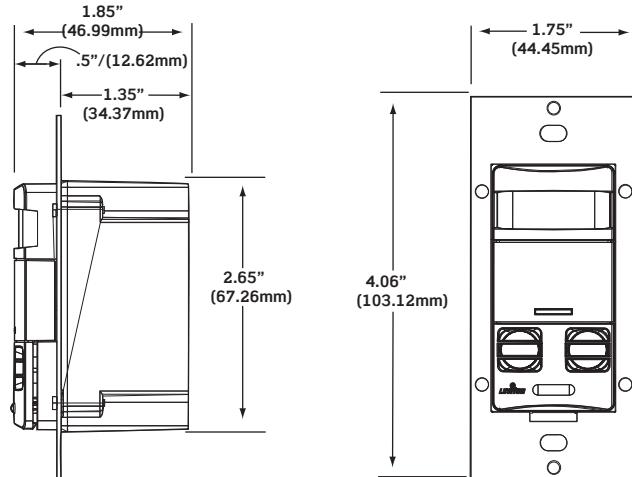
- Fast, simple installation: fits in a standard wall box and replaces a single-pole wall-switch; neutral and no neutral options available. Sensor can be ganged together with other units in a multiple-switch wall plate.
- Low-profile design eliminates obtrusive “scanning-device” look. Elegant Decora wallplates complement any interior for sleek aesthetics; uses Decora wallplates and coordinates with Leviton’s popular line of Decora wiring devices.
- Convenient push button provides manual-ON/OFF light switching at any time
- Segmented Fresnel lens provides optimum sensitivity and performance. Designed with an extensive “minor motion” area where even slight body movements will be detected.
- Vandal resistant PIR lens
- Patented blenders: adjustable horizontal field-of-view (PIR may be adjusted between 180° and 60° of arc by using integral blenders located on either side of the lens), no masking required
- Manual-ON/auto-OFF mode for installations where manual-ON switching is required but auto-OFF switching is still desired for California Title 24 energy savings
- To comply with CA Title 24, LED indicator light flashes when sensor detects motion to verify detection is active. Green flashes for Ultrasonic, red flashes for PIR.
- Time: the delayed OFF time is preset at 30 minutes in the Auto Adapting mode. A choice of four delayed-OFF time settings are available: 30-seconds (for walking test purposes only), 10, 20 and 30 minutes for fixed time and auto adapting. The LED will flash when the adjusting knob is set to the indicated time value.
- Ambient light recognition: integrated light sensor prevents lights from turning on when the room is adequately illuminated by natural light.
- Self-adaptive technology: callbacks for adjustment are eliminated. Time delay and sensitivity settings are continually adjusted to occupant patterns of use in auto adapt mode.
- Exclusive walk-through feature provides increased energy savings by not leaving the lights ON for an extended period after only momentary occupancy
- Vacancy confirmation: when the time out expires and the relays turn OFF, a 30-second (OSSMT-G) or 40-second (OSSMT-M) vacancy confirmation exists to turn the relays back on
- False detection circuitry
- Small motion sensitivity (U/S): ultrasonic technology provides excellent minor motion sensitivity
- Ability to disable U/S (OSSMT-M). For added flexibility, OSSMT-G has the ability to disable both PIR and U/S.
- Presentation mode feature: for slide or film presentations, allows push buttons to turn lights OFF and keep them OFF while the room is occupied
- Exclusive Leviton High Inrush Stability (H.I.S.) circuitry specifically designed to handle today’s high inrush electronic ballast loads and offer unmatched durability and service.
- True Zero-Cross Relay switches at the zero crossing point of the AC power curve to ensure maximum contactor life and compatibility with electronic ballasts
- Tested and complies with NEMA WD 7-2011 Occupancy Sensor Testing Standard

FIELD-OF-VIEW

The OSSMT provides a 180° field-of-view with a maximum coverage area of approximately 2,400 square feet. The maximum sensing distance in front of the sensor is 40 feet, and side to 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 “major motion” zone exhibits a lesser degree of sensitivity and requires larger movements.



DIMENSIONAL DIAGRAMS



INSTALLATION

The OSSMT is preset to deliver optimum performance in a wide variety of applications without requiring any adjustments during installation. Exclusive self-adjusting operating features will automatically compensate for real-time occupancy patterns to provide maximum convenience and energy savings. The unit may replace a single-pole wall switch mounted in a standard wall box. The OSSMT-MD must have a neutral and be properly grounded in order to operate. The OSSMT-GD does not require a neutral for installation. The unit's integral blinders may be used to restrict the field of view to prevent unwanted detection of traffic. It should be positioned at least 6 feet away from HVAC registers. Note that whenever the unit is powered up, it will take approximately 1 minute to begin normal operation.

SPECIFICATIONS**ELECTRICAL**

| | | | |
|---------------------------------------|---|-------------------------|-------------------------|
| Line Voltage | 120-230-277/347 VAC | | |
| Power Consumption | | U/S & PIR | PIR only |
| OSSMT-MD | 120V 277V 347V | 390mW 480mW 500mW | 190mW 270mW 350mW |
| OSSMT-GD | 120V 277V | 110mW 340mW | 70mW 310mW |
| Operational Frequency | 50/60 Hz | | |
| Ultrasonic Operating Frequency | 40 kHz | | |
| Wire Designation | Line-Black | Neutral-White | |
| | Load-Blue | Ground-Green | |
| Load Rating | Incandescent/Tungsten: 800W @ 120V Fluorescent: 1200VA @ 120V 2700VA @ 277V, 1500VA @ 347V Motor: 1/4 HP @ 120V | | |
| ENVIRONMENTAL | | | |
| Operating Temperature Range | 32 to 104°F (0 to 104°C) | | |
| Storage Temperature Range | 14 to 185°F (-10 to 85°C) | | |
| Relative Humidity | 20-90% non-condensing | | |
| OTHER | | | |
| Listings | OSSMT-MD: UL/cUL OSSMT-GD: ETL/cETL Listed, CSA OSSMT-M3x: cETL listed, CSA, can be used to comply with 2016 Title 24, Part 6 occupancy sensing requirements, FCC compliant, tested to NEMA WD 7-2011 | | |
| Warranty | Limited five-year warranty | | |

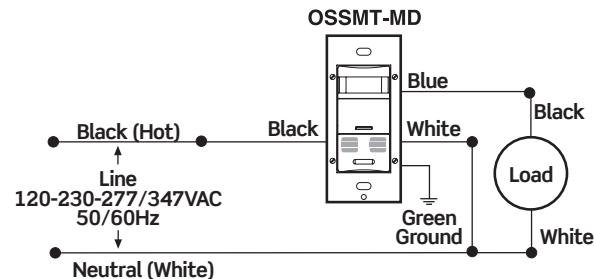
ORDERING INFORMATION

| CAT. NO.* | DESCRIPTION |
|------------------|---|
| OSSMT-MDX | Multi-Technology Wall Switch Occupancy Sensor |
| OSSMT-GDx | No Neutral, Multi Technology Wall Switch Occupancy Sensor |
| OSSMT-M3x | Multi-Technology Wall Switch Occupancy Sensor, 347V |

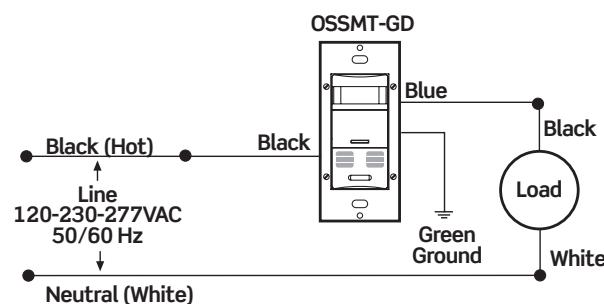
* Replace x with (W) White, (I) Ivory, (T) Light Almond, (G) Gray, Ebony (-E), or Red (-R)

NOTE: OSSMT-M3x model available in (W) White and (I) Ivory only.

* NAFTA compliant and Made in USA models available.

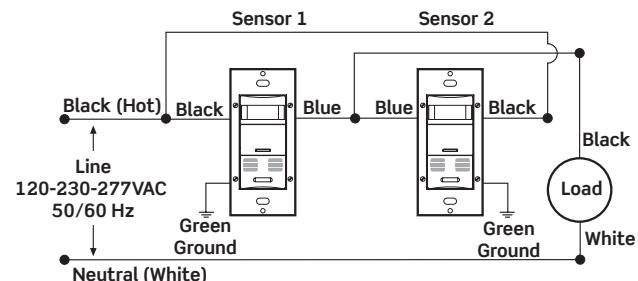
WIRING DIAGRAM

OSSMT-MD Wall Switch Occupancy Sensor Wiring Diagram,
Single Location Control



Note: Ground wire must be connected.

OSSMT-GD Wall Switch Occupancy Sensor Wiring Diagram,
Single Location Control



Note: Ground wire must be connected.

OSSMT-GD Wall Switch Occupancy Sensor Wiring Diagram,
Two Location Control

OSSMT

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G-7357F/18-aa
REV SEP 2018