White, Ivory, Almond, Light Almond, Gray, Black

4.06” H x 1.75” W x 1.85” D

20% to 90% non-condensing

60Hz

0° C to 50° C

40kHz

10 ft

Primary Relay-No. 16 AWG leads:

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Dual Relay Multi-Technology Wall Switch Occupancy Sensors

The OSSMD line of dual relay multi-technology Decora style wall switch occupancy sensors features several models to provide automatic lighting control for energy savings and convenience in a variety of commercial applications. OSSMD combines multi-technology with all-digital architecture in a dual relay wall switch occupancy sensor to minimize false triggering. The OSSMD automatically analyzes room conditions and adapts to changing environments. The result is a code compliant, trouble-free, “install-and-forget” solution for bi-level switching and lighting control.

• PIR and US technology for performance and sensitivity
• Controls two separate lighting loads from a single unit
• Manual-ON for the secondary relay
• Features self-adjusting occupancy sensor technology with automatic “walk-through” sensing
• PIR can be disabled
• 30-minute maximum time-out delay
• CEC Title 24 Compliant

APPLICATIONS
• Private and executive offices
• Conference rooms
• Classrooms
• Lounges
• Day care centers
• Multiple rooms
• Storage areas
• Rooms with extreme temperature fluctuations
• Offices

The OSSMD provides automatic switching of two separate loads from a single unit. It is compatible with incandescent, fluorescent, low-voltage lighting, and fan loads. The unit features dual manual overriding switches that can be used to toggle the ON/OFF status of each lighting load while an area is occupied. The OSSMD can be installed in place of two single-pole wall switches and fits in a standard single-gang wall box. The unit requires a ground connection for proper operation. The sensor has an adjustable 30-minute time-delay setting for both relays with a shorter 30-second vacancy confirmation built in. To comply with California Energy Commissioner’s Title 24, the second relay is a manual-ON only.

OSSMD-FT uses auto-ON or manual-ON pushbutton switch with two relays, the secondary relay being auto-ON or manual-ON. The OSSMD-GD uses auto-ON or manual-ON pushbutton switch with two relays. Like the OSSMD-MD, the OSSMD-GD has the ability to disable the PIR function when there are extreme changes in airflow or temperature. In addition, the OSSMD-GD does not require a neutral wire for installation, perfect for retrofit applications. The OSSMD-F is ideal for use in commercial restrooms with exhaust fans. In these applications, when the user requires a delayed OFF for the second relay, a feature can be added. A single pushbutton switch with two relays, the OSSMD-F uses autoON or manual-ON pushbutton switch with two relays, allows the OSSMD-GD to perform the same functions as the OSSMD-F, adds a feature to delay after two minutes before allowing the OSSMD-GD to perform the same functions as the OSSMD-F.
The lights will be turned OFF once the room is vacant, and keep them ON for as long as the room is occupied. Button 1 or 2 will turn the respective lighting loads ON the primary relay, and pushbutton 2 controls the ON/OFF status of each load. Pushbutton 1 controls the dual pushbutton switches that will “toggle” the pushbutton Manual Override control

**Ambient Light Override**

To maximize energy savings, the Ambient Light Override feature will switch the lights OFF when there is adequate natural light in the room, regardless of the occupancy. The pushbutton cannot be used to turn lights ON at any time, regardless of the override setting.

The sensor will take a measurement of the ambient light before it detects motion. If there is enough light in the room, the sensor will leave the lights ON. If there is not enough light in the room, the sensor will turn the lights OFF if the primary relay ON. Note that the sensor will time out and turn the lights OFF after no motion is detected, regardless of mode of operation.

**Enhanced Adjustment Options**

The OSSMD is factory preset to deliver optimum performance in a wide variety of commercial applications. Factory settings are:

- **Time** - The delayed OFF time is preset at 30 minutes.
- **Range (PIR)** - Adjusting the range allows the unit to better accommodate unusual space geometries or lighting conditions. Adjustments range from Low-Medium-High sensitivity (see installation sheet).
- **Ambient light override** - Provides enhanced adjustment options for sensitivity, ambient light override, delayed OFF, field-of-view, and non-adaptive mode. To avoid tampering, all adjustments can only be accessed by removing the control panel cover. A small flat-head screwdriver can be used to access the controls, and the field-of-view and override setting can be adjusted as follows.

**PUSHBUTTON MANUAL OVERRIDE CONTROL**

For manual control of primary and secondary lighting loads, attach both the OSSMD-MD and OSSMD-FT to the existing control system. The OSSMD-GD is used to control two separate lighting loads. The unit must be installed on the lighting panel cover. A small flat-head screwdriver can be used to access the control panel cover.

**Blinders** - Integral sliding blenders on each side of the lens may be used to restrict the field-of-view down to 90°. This will help prevent unwanted detection in areas such as hallways.

- **Time** - The delayed OFF time is preset at 30 minutes. A choice of four delayed OFF time settings is available:
  - Off
  - 30 minutes
  - 60 minutes
  - 120 minutes
- **Range (PIR)** - Adjusting the range allows the unit to better accommodate unusual space geometries or lighting conditions. Adjustments range from Low-Medium-High sensitivity (see installation sheet).

**Self-Adjusting Delayed-OFF Time**

The OSSMD provides enhanced adjustment options for sensitivity, ambient light override, delayed OFF, field-of-view, and non-adaptive mode. To avoid tampering, all adjustments can only be accessed by removing the cover. The unit can be set to low, medium, or high sensitivity, and the sensor will time out and turn the lights OFF after no motion is detected, regardless of mode of operation.

**Ambient Light Override**

To maximize energy savings, the Ambient Light Override feature will switch the lights OFF when there is adequate natural sunlight in the room, regardless of the occupancy. The pushbutton cannot be used to turn lights ON at any time, regardless of the override setting.

**Time** - The delayed OFF time is preset at 30 minutes.

- **Range (PIR)** - Adjusting the range allows the unit to better accommodate unusual space geometries or lighting conditions. Adjustments range from Low-Medium-High sensitivity (see installation sheet).
- **Ambient light override** - Provides enhanced adjustment options for sensitivity, ambient light override, delayed OFF, field-of-view, and non-adaptive mode. To avoid tampering, all adjustments can only be accessed by removing the control panel cover. A small flat-head screwdriver can be used to access the controls, and the field-of-view and override setting can be adjusted as follows.
The dual manual-override switches provide a viewing mode feature. If the lights are ON, press the pushbutton. The lights will remain on as long as the room is occupied. If the room becomes vacant, both the OSSMD-MD and OSSMD-GD features remain. The dual manual-override switches provide a viewing mode feature. If the lights are ON, press the pushbutton. The lights will remain on as long as the room is occupied. If the room becomes vacant, both the OSSMD-MD and OSSMD-GD features remain.

### Features
- **Self-Adaptive Technology** adjusts ambient light ON/OFF switching with the pushbutton. The lights will remain on as long as the room is occupied. If the room becomes vacant, both the OSSMD-MD and OSSMD-GD features remain.
- **Non-Adaptive Mode** disables self-adaptive delayed-OFF time and switch features in applications where these features are not desired. Optional manual adjustment for delayed-OFF time settings is available. Optional manual adjustment for delayed-OFF time settings is available. Optional manual adjustment for delayed-OFF time settings is available. Optional manual adjustment for delayed-OFF time settings is available.
- **Ultrasonic technology** provides excellent small movement detection for rooms, lounges and other commercial areas.
- **Adjustable horizontal field of view (PIR) may be adjusted to cover a standard bank of fluorescent, incandescent, or low-voltage light bulbs.**
- **Selecting 180° field-of-view provides approximately 2400 square feet of coverage, suitable for a variety of commercial applications.**
- **180° field-of-view provides approximately 2400 square feet of coverage, suitable for a variety of commercial applications.**
- **Limited Five-Year Warranty**

### Installation
- The OSSMD-MD mounts in a standard single-gang wall box and replaces two single-pole wall switches for fast and easy installation. Neutral and ground connection required for OSSMD-MD and OSSMD-GD. OSSMD-F1 (OSM) does not require a neutral for installation; neutral and ground connection required for OSSMD-F1 (OSM) does not require a neutral for installation; neutral and ground connection required for OSSMD-F1 (OSM) does not require a neutral for installation.
- **CTC/LCES, Certified with California Title 24 Energy Code and FCC Regulations.**
- **Limited Five-Year Warranty**

### Pushbutton Manual Override Control
- For manual control of primary and secondary lighting loads. Both the OSSMD-MD and OSSMD-GD features require a neutral for installation; neutral and ground connection required for OSSMD-F1 (OSM) does not require a neutral for installation; neutral and ground connection required for OSSMD-F1 (OSM) does not require a neutral for installation; neutral and ground connection required for OSSMD-F1 (OSM) does not require a neutral for installation.
- **Limited Five-Year Warranty**
The InSight OSSMD switch, when in Auto-Adaptive mode, automatically adjusts the Ambi-Left sensor’s detection range to accommodate dynamic changes in occupancy patterns. Because the OSSMD can automatically adjust the detection range, no pre-coverage settings need to be made.

The OSSMD can be set in three modes: Auto-Adaptive, Manual-On/Auto-Off, and Non-Adaptive. The OSSMD will continue to work in the last occupied mode until it is manually changed. The three modes are described below.

**Auto-Adaptive Mode—**The OSSMD in Auto-Adaptive mode automatically adjusts the detection range of the Ambi-Left sensor, maximizing energy savings by providing the right balance of energy savings and occupant satisfaction. In Auto-Adaptive mode, the OSSMD is self-adjusting and will automatically change the detection range to accommodate changes in occupancy patterns. When ambient light levels are too high, the OSSMD will turn off lights. When ambient light levels are too low, the OSSMD will turn lights on. The OSSMD will continue to automatically adjust the detection range at any time, as long as there is an occupant moving through the space. The Ambi-Left sensor’s adjustable detection range and sensitivity provide maximum energy savings in variable occupancy spaces. This mode is best for highly variable occupancy conditions such as hallways.

**Manual-On/Auto-Off Mode—**In Manual-On/Auto-Off mode, the OSSMD is turned on or off manually by pressing the ON-OFF button in a prescribed sequence to Low-Medium-High sensitivity (see installation). The OSSMD will continue to operate as normal. In this mode, the unit will not turn lights ON automatically when motion is detected. Lights can only be turned ON manually by pressing the pushbutton. The dual manual-override switches provide a viewing mode feature where the lights are OFF and the OSSMD automatically turns OFF when there is ample natural sunlight in the room. It is recommended that the viewing mode be used in conjunction with manual-ON switching of each load at any time.

**Non-Adaptive Mode—**In Non-Adaptive mode, the OSSMD is set to a fixed sensitivity level and will not automatically adjust the detection range. In Non-Adaptive mode, the OSSMD turns the lights ON when there is ample natural sunlight in the room and turns the lights OFF if there is enough light in the room. The OSSMD allows for continuous viewing of the slide or film presentation and is recommended for reading or viewing slide or film presentations. The lights can also be turned back ON as needed by simply pressing the ON-OFF button. The OSSMD will continue to operate as normal.

**Installation**

The OSSMD mounts in a standard single gang electrical box. The unit can be used in conjunction with the 3000 series 1/16" wide 2 Relay Nightlight outlet boxes. Two single-pole wall switches for fast and easy installation can be used to remotely control the OSSMD. The two single-pole wall switches can be used to turn lights ON at any time, regardless of the override setting.

**Features**

- **Electronic Ballasts—**True zero-cross relay switches at the zero cross, resulting in high efficiency and zero current spikes. The OSSMD's true zero-cross relay switches provide a viewing mode feature where the lights are OFF and the OSSMD automatically turns OFF when there is ample natural sunlight in the room. It is recommended that the viewing mode be used in conjunction with manual-ON switching of each load at any time.

**Operation**

The INsight OSSMD switch, when in Auto-Adaptive mode, automatically adjusts the Ambi-Left sensor’s detection range to accommodate dynamic changes in occupancy patterns. Because the OSSMD can automatically adjust the detection range, no pre-coverage settings need to be made.

The OSSMD can be set in three modes: Auto-Adaptive, Manual-On/Auto-Off, and Non-Adaptive. The OSSMD will continue to work in the last occupied mode until it is manually changed. The three modes are described below.

**Auto-Adaptive Mode—**An electronic Walk-Through mode automatically adjusts the OSSMD's detection range to accommodate dynamic changes in occupancy patterns. Because the OSSMD can automatically adjust the detection range, no pre-coverage settings need to be made. In Auto-Adaptive mode, the OSSMD is self-adjusting and will automatically change the detection range at any time, as long as there is an occupant moving through the space. The Ambi-Left sensor’s adjustable detection range and sensitivity provide maximum energy savings in variable occupancy spaces. This mode is best for highly variable occupancy conditions such as hallways.

**Manual-On/Auto-Off Mode—**In Manual-On/Auto-Off mode, the OSSMD is turned on or off manually by pressing the ON-OFF button in a prescribed sequence to Low-Medium-High sensitivity (see installation). The OSSMD will continue to operate as normal. In this mode, the unit will not turn lights ON automatically when motion is detected. Lights can only be turned ON manually by pressing the pushbutton. The dual manual-override switches provide a viewing mode feature where the lights are OFF and the OSSMD automatically turns OFF when there is ample natural sunlight in the room. It is recommended that the viewing mode be used in conjunction with manual-ON switching of each load at any time.

**Non-Adaptive Mode—**In Non-Adaptive mode, the OSSMD is set to a fixed sensitivity level and will not automatically adjust the detection range. In Non-Adaptive mode, the OSSMD turns the lights ON when there is ample natural sunlight in the room and turns the lights OFF if there is enough light in the room. The OSSMD allows for continuous viewing of the slide or film presentation and is recommended for viewing slide or film presentations. The lights can also be turned back ON as needed by simply pressing the ON-OFF button. The OSSMD will continue to operate as normal.

**Installation**

The OSSMD mounts in a standard single gang electrical box and replaces two single-pole wall switches for fast and easy installation. No pre-coverage settings need to be made. The OSSMD can be used to control two separate lighting loads. The unit must be properly grounded in order to prevent unlawful discharge of static electricity. In order to prevent unlawful discharge of static electricity, the unit must be properly grounded in order to prevent unlawful discharge of static electricity. The OSSMD should be positioned at least a foot away from HVAC registers. Note that whenever the unit is powered up, it will take approximately 1 minute to begin normal operation.

**Features**

- **Self-Adaptive technology—**Self-adapts to any environment for maximum energy savings. Always detects motion and turns lights OFF when there is no motion.
- **Non-Adaptive mode—**Self-adjusting OFF time is preset at 10 minutes. A choice of four delayed-OFF time settings is available: 10, 20, 30, and 60 minutes. To maximize energy savings, the OSSMD will operate as normal. In this mode, the unit will not turn lights ON automatically when motion is detected. Lights can only be turned ON manually by pressing the pushbutton. The dual manual-override switches provide a viewing mode feature where the lights are OFF and the OSSMD automatically turns OFF when there is ample natural sunlight in the room. It is recommended that the viewing mode be used in conjunction with manual-ON switching of each load at any time.

**Operation**

The OSSMD switch operates in two modes: Manually-On/Auto-Off and Auto-Adaptive. The OSSMD will automatically turn the lights OFF when there is no motion. The OSSMD will continue to operate as normal. In this mode, the unit will not turn lights ON automatically when motion is detected. Lights can only be turned ON manually by pressing the pushbutton. The dual manual-override switches provide a viewing mode feature where the lights are OFF and the OSSMD automatically turns OFF when there is ample natural sunlight in the room. It is recommended that the viewing mode be used in conjunction with manual-ON switching of each load at any time.

**Self-Adaptive Delayed-Off Time—**The OSSMD provides exceptional energy savings by optimizing the use of delayed-OFF OFF switching. In this mode, the OSSMD continually adjusts to occupant patterns of use automatically. In this mode, the unit will not turn lights ON automatically when motion is detected. Lights can only be turned ON manually by pressing the pushbutton. The dual manual-override switches provide a viewing mode feature where the lights are OFF and the OSSMD automatically turns OFF when there is ample natural sunlight in the room. It is recommended that the viewing mode be used in conjunction with manual-ON switching of each load at any time.
**Dual Relay Multi-Technology Wall Switch Occupancy Sensors**

The OSSMD line of dual relay multi-technology Decora-style wall switch occupancy sensors features several models to provide automatic lighting control for energy savings and convenience in a variety of commercial applications. OSSMD combines multi-technology with all-digital architecture in a dual relay switch occupancy sensor to minimize false triggering.

- **OSSMD-FTx Dual Relay Multi-Tech Wall Switch Occupancy Sensor with 10-minute Delayed-OFF for**
- **OSSMD-GDx No Neutral, Dual Relay Multi-Tech Wall Switch Occupancy Sensor, 120/277V**
- **OSSMD-MDx Dual Relay Multi-Tech Wall Switch Occupancy Sensor, 120/277V**

**PRODUCT DATA**

**Field-of-View**

The OSSMD provides a 180° field-of-view with a maximum coverage area of approximately 2400 square feet. The maximum large motion sensing distance in front of the sensor is 20 feet, and at each side is 30 feet. A “small 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 area is approximately 2 feet by 6 feet.

**Environmental**

- **Standing Temperature Range:** 0° C to 50° C
- **Relative Humidity:** 20% to 90% non-condensing

**Specifications**

**Electrical**

- **Line Voltage:** 120/277V
- **Primary Relay-No. 16 AWG leads:** (18.3 m)
- **Primary Relay:** (6.1 m)
- **Load:** (66.3 m)
- **Motor:** 1/4 HP @ 120V
- **Fluorescent:** 800W @ 120V
- **Incandescent:** 1200V A @ 120V
- **Motor:** 1/4 HP @ 120V
- **Fluorescent:** 800W @ 120V
- **Incandescent:** 1200V A @ 277V

**Applications**

- **Private and Executive offices**
- **Classrooms**
- **Conferece rooms**
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