## Maestro® Occupancy sensing switch

The Lutron® Maestro® Occupancy sensing switch combines a Maestro® switch with a passive infrared occupancy or vacancy sensor. The sensor detects the heat from occupants moving within an area to determine whether the space is occupied. Based on the feedback from the sensor, the occupancy sensing switch will adjust the load accordingly.

## Features

- Passive infrared sensors with exclusive Lutron® XCT $_{\text {тм }}$ Technology for fine motion detection
- $180^{\circ}$ sensor field-of-view
- Up to $30 \mathrm{ft} \times 30 \mathrm{ft}(9 \mathrm{~m} \times 9 \mathrm{~m})\left[900 \mathrm{ft}^{2}\left(81 \mathrm{~m}^{2}\right)\right]$ major motion coverage and $20 \mathrm{ft} \times 20 \mathrm{ft}(6 \mathrm{~m} \times 6 \mathrm{~m})\left[400 \mathrm{ft}^{2}\left(36 \mathrm{~m}^{2}\right)\right]$ minor motion coverage
- Occupancy version can be set to Auto-ON / Auto-OFF or Manual-ON / Auto-OFF
- Vacancy version available to meet CA Title 24 requirements
- Adjustable timeout (1, 5, 15, or 30 minutes) and high/low sensitivity adjustment
- Occupancy sensing switch loads: incandescent, halogen, ELV, MLV, CFL, LED, magnetic fluorescent, electronic fluorescent, and fan.

Models available
MS-OPS2
MS-OPS5M
MS-OPS6M2-DV
MS-OPS6M2N-DV
UMS-OPS6M-DV
MS-VPS2
MS-VPS5M
MS-VPS6M2-DV
MS-VPS6M2N-DV
UMS-VPS6M-DV


MS-OPS2
MS-OPS5M
MS-OPS6M2-DV
MS-OPS6M2N-DV
MS-VPS2
MS-VPS5M
MS-VPS6M2-DV
MS-VPS6M2N-DV

## Specifications

## Regulatory Approvals

- UL® Listed to U.S. and Canadian safety requirements.
- NOM Certification (MS- models only).


## Power

- $120 \mathrm{~V} \sim 50 / 60 \mathrm{~Hz}{ }^{1}$
- 120-277 V~ $50 / 60 \mathrm{~Hz}^{1}$


## Key Design Features

- All lighting loads.
- Crush/tamper resistant lens.
- Smart ambient light detection.
- Adaptive switching algorithm for extended relay life.
- $\mathrm{XCT}_{\text {тм }}$ Technology for fine motion detection.
- Lutron® patented Softswitch®.


## Environment

- Ambient operating temperature: $32{ }^{\circ} \mathrm{F}$ to $104^{\circ} \mathrm{F}$ $\left(0^{\circ} \mathrm{C}\right.$ to $40^{\circ} \mathrm{C}$ ), $0 \%-90 \%$ humidity, non-condensing. Indoor use only.


## Warranty

- 5-Year Limited Warranty. For additional Warranty information, please visit www./utron.com/ TechnicalDocumentLibrary/Sensor_Warranty.pdf


## Additional Information

- When using MS-OPS2, MS-OPS5M, MS-OPS6M2-DV, MS-VPS2, MS-VPS5M, or MS-VPS6M2-DV on GFI-controlled circuits, please see Lutron® P/N 048440.
- For Maestro® Occupancy sensing dimmer models, please see Lutron® P/N 369270.
- For use with MA-AS, MSC-AS, MA-AS-277, or MSC-AS-277 to control the load from more than two locations, please see Lutron® P/N 048435.
- For more information, please see www.lutron.com/ occvacsensors
- Lutron Technical Hotline: 1.800.523.9466.


## Advanced Features

## Switching

- Standard zero cross-maximizes relay life by switching at the point of minimum energy on the AC power curve.
- Adaptive zero cross-maximizes relay life by switching at the point of minimum energy on the AC power curve. Actively adapts to variations in relay timing.
- Lutron® Patented Softswitch circuit-eliminates arcing at mechanical contacts when loads are switched. Extends relay life to an average of $1,000,000$ cycles (on/off) for resistive, capacitive, or inductive sources.


## XCT $_{\text {тм }}$ Technology

Advanced sensing technology for fine motion detection ensures that the lights stay on while the room is occupied, and that the sensor does not turn on falsely when there is no occupancy in the room. For more information, see www.lutron.com/ TechnicalDocumentLibrary/white\%20paper\%20 XCT\%204-23-09\%20B.pdf

[^0]| Job Name: |
| :--- |
| $\square$ |
| Job Number: $\quad \square$ |

Model Numbers:

## Custom Settings

## Ambient Light Detection

Lights turn on only if natural light in room is low.

- Smart-Ambient light threshold adjusts precisely to the user's preference.

Instructions: If switch turns on when there is enough natural light, or if switch does not turn on when there is not enough natural light, press the large button within 5 seconds of entering the room. Over time, this interaction will "teach" the switch your preferred setting.

- Presets-high, medium, low, and disabled.


## Sensor Operation

- Occupancy/Vacancy: Auto-ON / Auto-OFF or Manual-ON / Auto-OFF
- Vacancy only: Manual-ON / Auto-OFF only


## Timeout Options

(See Additional Features on page 5 for default settings)

- 1 Minute
- 5 Minutes
- 15 Minutes
- 30 Minutes


## Sensitivity Options

- High sensitivity (default)
- Low sensitivity


## Auto-ON Options

(MS-OPS and UMS-OPS only)

- Occupancy (default): Auto-ON / Auto-OFF
- Vacancy*: Manual-ON / Auto-OFF
- Low Light: Lights turn on only if needed (if ambient light is below threshold)
* There is a 15-second grace period that begins when the lights are automatically turned off, during which the lights will automatically turn back on in response to motion. This grace period is provided as a safety and convenience feature in the event that the lights turn off while the room is still occupied, so that the user does not need to manually turn the lights back on. After 15 seconds, the grace period expires and the lights must be manually turned on.


## Manual Off-While-Occupied Options

(MS-OPS and UMS-OPS only - see Additional Features on page 5 for default setting)

- Enabled
- When the Occupancy sensing switch is manually turned off, the Occupancy sensing switch will not turn the lights back on automatically while the room is occupied.
- Once the room is vacated, the Auto-ON feature returns to normal operation after the timeout period has expired.
- This may be the preference in conference rooms or classrooms while viewing presentations. This feature requires motion to keep the lights off.
- Disabled
- When the Occupancy sensing switch is manually turned off, the Auto-ON feature will return to normal operation after 25 seconds.
- This may be the preference if the user always wants the lights to turn on upon entering and the lights to turn off when the room is vacant.

| Job Name: |
| :--- |
| $\square$ |
| Job Number: $\quad \square$ |

Model Numbers:

## Selection Matrix



Model Number ${ }^{1}$

| MS-OPS2-XX |  | $\checkmark$ |  |  | 2 A |  |  |  |  | $\checkmark$ |  | 1 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MS-OPS5M-XX |  |  | $\checkmark$ | $\checkmark$ | 5 A |  | 3 A | 3 A |  | $\checkmark$ |  | 2, 3, 5 |
| MS-OPS6M2-DV-XX |  |  | $\checkmark$ | $\checkmark$ |  | 6 A | 3 A | 3 A |  | $\checkmark$ |  | 2-6 |
| MS-OPS6M2N-DV-XX |  |  | $\checkmark$ | $\checkmark$ |  | 6 A | 3 A | 3 A | $\checkmark$ |  |  | 7-11 |
| UMS-OPS6M-DV-XX ${ }^{5}$ |  |  |  | $\checkmark$ |  | 6 A | 3 A | 3 A |  |  | 25 W | 12-17 |
| MS-VPS2-XX | $\checkmark$ | $\checkmark$ |  |  | 2 A |  |  |  |  | $\checkmark$ |  | 1 |
| MS-VPS5M-XX | $\checkmark$ |  | $\checkmark$ | $\checkmark$ | 5 A |  | 3 A | 3 A |  | $\checkmark$ |  | 2, 3, 5 |
| MS-VPS6M2-DV-XX | $\checkmark$ |  | $\checkmark$ | $\checkmark$ |  | 6 A | 3 A | 3 A |  | $\checkmark$ |  | 2-6 |
| MS-VPS6M2N-DV-XX | $\checkmark$ |  | $\checkmark$ | $\checkmark$ |  | 6 A | 3 A | 3 A | $\checkmark$ |  |  | 7-11 |
| UMS-VPS6M-DV-XX ${ }^{5}$ | $\checkmark$ |  |  | $\checkmark$ |  | 6 A | 3 A | 3 A |  |  | 25 W | 12-17 |

1 XX in model number represents color/finish code.
2 Occupancy sensors can be configured as Auto-ON / Auto-OFF or Manual-ON / Auto-OFF. Vacancy sensors are configured as Manual-ON / Auto-OFF only.
3 Standard mechanical 3-way switch cannot be combined with companion switch.
4 Companion switch MA-AS, MSC-AS, MA-AS-277, or MSC-AS-277 is required for multi-location installations (more than two locations controlling the same lighting circuit). Up to nine companion switches may be connected.
5 BAA-compliant models.
$\square$

## Additional Features

|  | Crush/tamper-resistant lens |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Ambient light detection |  |  |  |  |  |
|  |  |  | Switching |  |  |  |
|  |  |  |  | $\mathrm{XCT}_{\text {tm }}$ technology |  |  |
|  |  |  |  |  | Manual off-while-occupied default setting |  |
|  |  |  |  |  |  | Default timeout (minutes) |
| Model Number ${ }^{1}$ |  |  |  |  |  |  |
| MS-OPS2-XX |  | Smart | Standard | $\checkmark$ | Disabled | 5 |
| MS-OPS5M-XX |  | Smart | Standard | $\checkmark$ | Disabled | 5 |
| MS-OPS6M2-DV-XX | $\checkmark$ | Smart | Adaptive | $\checkmark$ | Enabled | 15 |
| MS-OPS6M2N-DV-XX | $\checkmark$ | Smart | Adaptive | $\checkmark$ | Enabled | 15 |
| UMS-OPS6M-DV-XX |  | Presets | Softswitche | $\checkmark$ | Enabled | 5 |
| MS-VPS2-XX |  | Smart | Standard | $\checkmark$ |  | 5 |
| MS-VPS5M-XX |  | Smart | Standard | $\checkmark$ |  | 5 |
| MS-VPS6M2-DV-XX | $\checkmark$ | Smart | Adaptive | $\checkmark$ |  | 15 |
| MS-VPS6M2N-DV-XX | $\checkmark$ | Smart | Adaptive | $\checkmark$ |  | 15 |
| UMS-VPS6M-DV-XX |  | Presets | Softswitche | $\checkmark$ |  | 5 |

${ }^{1} X X$ in model number represents color/finish code.

| Job Name: |  | Model Numbers: |
| :--- | :--- | :--- |
| $\square$ | $\square$ | $\square$ |
| Job Number: $\square$ | $\square$ | $\square$ |

## Occupancy Sensing Switch Placement and Operation

- The ability of the Occupancy sensing switch to detect motion requires line-of-sight of room occupants. The Occupancy sensing switch must have an unobstructed view of the room.
- Hot objects and moving air currents can affect the performance of the Occupancy sensing switch.
- The performance of the Occupancy sensing switch depends on a temperature differential between the ambient room temperature and that of room occupants. Warmer rooms may reduce the ability of the Occupancy sensing switch to detect occupants.


## Definitions

Major motion: movement of a person entering or passing through an area.
Minor motion: movement of a person occupying an area and engaging in small activities (e.g., reaching for a telephone, turning the pages of a book, opening a file folder, picking up a coffee cup).

## NEMA WD7 Coverage



Major motion coverage: $900 \mathrm{ft}^{2}\left(81 \mathrm{~m}^{2}\right)$
$\square$ Minor motion coverage: $400 \mathrm{ft}^{2}\left(36 \mathrm{~m}^{2}\right)$


Horizontal Beam Diagram


Vertical Beam Diagram


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| Job Name: |
| :--- |
| $\square$ |
| Job Number: $\quad \square$ |

## Model Numbers: <br> Model Numbers:

Job Number:

## Dimensions

Measurements shown as: in (mm).

Front View


Side View


## Ganging

When ganging with other controls in the same wallbox, remove inside fins (UMS-OPS6M-DV and UMS-VPS6M-DV only).

Each control has inside fins removed


Middle of Gang control has all fins removed


| Job Name: |
| :--- |
| $\square$ |
| Job Number: $\quad \square$ |

Model Numbers:

## Mounting



## Operation



UMS-OPS6M-DV
UMS-VPS6M-DV

## IMPORTANT NOTICE

FASS ${ }_{\text {тм }}$ - Front Accessible Service Switch To service load, remove power by pulling the FASS тм $^{\text {s }}$ switch out completely on either the Dimmer or Companion Dimmer. After servicing load, push the FASS $_{\text {tw }}$ switch back in fully to restore power to the control.

| Job Name: |  | Model Numbers: |
| :--- | :--- | :--- |
| $\square$ | $\square$ | $\square$ |
| Job Number: $\square$ | $\square$ | $\square$ |

## Wiring Diagrams

## Wiring Diagram 1

Single Location Installation (120 V~)
-OPS2 and -VPS2


Wiring Diagram 2
Single Location Installation (120 V~) ${ }^{1}$
-OPS5M, -OPS6M2-DV, -VPS5M, -VPS6M2-DV


## Wiring Diagram 3

3-way Installation with Standard Mechanical Switch (120 V~) 2, 3
-OPS5M, -OPS6M2-DV, -VPS5M, -VPS6M2-DV


When using controls in single location installations, tighten the blue terminal or cap blue wire. Do not connect the blue terminal/wire to any other wire or to ground.
2 Only one Occupancy sensing switch can be used per multi-location circuit.
3 A single standard mechanical 3-way switch or up to 9 companion switches may be connected to most Occupancy sensing switches.
Standard mechanical 3-way switch cannot be combined with companion switch. Total blue terminal wire length may be up to $150 \mathrm{ft}(46 \mathrm{~m}$ ).
Continued on next page...
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Page 9

| Job Name: |
| :--- |
| $\square$ |
| Job Number: $\quad \square$ |

Model Numbers:

## Wiring Diagrams (continued)

## Wiring Diagram 4

3-way Installation with Standard Mechanical Switch (277 V~) $)^{1,2,3}$
-OPS6M2-DV, -VPS6M2-DV


## Wiring Diagram 5

Multi-Location Installation (120 V~) ${ }^{1,2,4}$


1 A single standard mechanical 3-way switch or up to 9 companion switches may be connected to most Occupancy sensing switches. Standard mechanical 3-way switch cannot be combined with companion switch. Total blue terminal wire length may be up to $150 \mathrm{ft}(46 \mathrm{~m}$ ).
2 Only one Occupancy sensing switch can be used per multi-location circuit.
3 Fan load applies to 120 V~ only (not for 277 V~).
4 Occupancy sensing switch can be installed in any location.

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| Job Name: |
| :--- |
| $\square$ |
| Job Number: $\quad \square$ |

Model Numbers:

Wiring Diagrams (continued)
Wiring Diagram 6
Multi-Location Installation (277 V~) ${ }^{1,2,3,4}$
-OPS6M2-DV, -VPS6M2-DV with MA-AS-277 or MSC-AS-277


1 A single standard mechanical 3-way switch or up to 9 companion switches may be connected to most Occupancy sensing switches. Standard mechanical 3-way switch cannot be combined with companion switch. Total blue terminal wire length may be up to $150 \mathrm{ft}(46 \mathrm{~m}$ ).
2 Only one Occupancy sensing switch can be used per multi-location circuit.
3 Occupancy sensing switch can be installed in any location.
4 Fan load applies to 120 V~ only (not for $277 \mathrm{~V} \sim$ ).


## Wiring Diagrams (continued)

## Wiring Diagram 7

Single Location Installation (120-277 V~) ${ }^{1,2}$
-OPS6M2N-DV, -VPS6M2N-DV


## Wiring Diagram 8

3-way Installation with Standard Mechanical Switch (120 V~) 3, 4
-OPS6M2N-DV, -VPS6M2N-DV


1 When using controls in single location installations, tighten the blue terminal or cap blue wire. Do NOT connect the blue terminal/wire to any other wire or to ground.
2 Fan load applies to 120 V ~ only (not for $277 \mathrm{~V} \sim$ ).
3 Only one Occupancy sensing switch can be used per multi-location circuit.
4 A single standard mechanical 3 -way switch or up to 9 companion switches may be connected to most Occupancy sensing switches.
Standard mechanical 3 -way switch cannot be combined with companion switch. Total blue terminal wire length may be up to $150 \mathrm{ft}(46 \mathrm{~m})$.
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| Job Name: |
| :--- |
| $\square$ |
| Job Number: $\quad \square$ |

Model Numbers:

## Wiring Diagrams (continued)

## Wiring Diagram 9

3-way Installation with Standard Mechanical Switch (277 V~) 1, 2, 3
-OPS6M2N-DV, -VPS6M2N-DV


1 Only one Occupancy sensing switch can be used per multi-location circuit.
2 A single standard mechanical 3-way switch or up to 9 companion switches may be connected to most Occupancy sensing switches. Standard mechanical 3-way switch cannot be combined with companion switch. Total blue terminal wire length may be up to 150 ft ( 46 m ).
3 Fan load applies to 120 V~ only (not for 277 V~).

| Job Name: |
| :--- |
| $\square$ |
| Job Number: $\quad \square$ |

Model Numbers:

## Wiring Diagrams (continued)

Wiring Diagram 10
Multi-Location Installation (120 V~ $)^{1,2,3}$
-OPS6M2N-DV, -VPS6M2N-DV with MA-AS or MSC-AS


## Wiring Diagram 11

Multi-Location Installation (277 V~) 1, 2, 3, 4
-OPS6M2N-DV, -VPS6M2N-DV with MA-AS-277 or MSC-AS-277


1 A single standard mechanical 3-way switch or up to 9 companion switches may be connected to most Occupancy sensing switches. Standard mechanical 3-way switch cannot be combined with companion switch. Total blue terminal wire length may be up to $150 \mathrm{ft}(46 \mathrm{~m}$ ).
2 Only one Occupancy sensing switch can be used per multi-location circuit.
3 Occupancy sensing switch can be installed in any location.
4 Fan load applies to 120 V ~ only (not for $277 \mathrm{~V} \sim$ ).

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| Job Name: |
| :--- |
| $\square$ |
| Job Number: $\quad \square$ |

Model Numbers:

## Wiring Diagrams (continued)

Wiring Diagram 12
Single Location Installation ${ }^{1,2}$
-OPS6M-DV and -VPS6M-DV


## Wiring Diagram 14

Multi-Location Installation (120 V~) 1, 4, 5, 6
-OPS6M-DV and -VPS6M-DV with MA-AS or MSC-AS


## Neutral

Wiring Diagram 15
Multi-Location Installation (277 V~) ${ }^{1,2,3,4,5,6}$
-OPS6M-DV and -VPS6M-DV with MA-AS-277 or MSC-AS-277


## Neutral

When using controls in single location installations, tighten the blue terminal or cap blue wire. Do not connect the blue terminal/wire to any other wire or to ground.
2 Fan load applies to 120 V ~ only (not for $277 \mathrm{~V} \sim$ ).
3 Optional shunt capacitor must be installed inside the load fixture or in a separate J -box.
4 Up to 9 companion switches may be connected to an Occupancy sensing switch. Total blue terminal wire length may be up to $250 \mathrm{ft}(76 \mathrm{~m})$.
5 Only one Occupancy sensing switch can be used per multi-location circuit.
Occupancy sensing switch can be installed in any location.
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| Job Name: |
| :--- |
| $\square$ |
| Job Number: $\quad \square$ |

Model Numbers:

## Wiring Diagrams (continued)

## Wiring Diagram 16

Multi-Location Installation with Shunt Capacitor (120 V~) $)^{1,2,3,4}$
-OPS6M-DV and -VPS6M-DV with MA-AS or MSC-AS


Neutral
Wiring Diagram 17
Multi-Location Installation with Shunt Capacitor ( $277 \mathrm{~V} \sim)^{1,2,3,4,5}$
-OPS6M-DV and -VPS6M-DV with MA-AS-277 or MSC-AS-277


Neutral

1 Optional shunt capacitor must be installed inside the load fixture or in a separate J-box.
2 Up to 9 companion switches may be connected to an Occupancy sensing switch. Total blue terminal wire length may be up to $250 \mathrm{ft}(76 \mathrm{~m})$
3 Only one Occupancy sensing switch can be used per multi-location circuit.
4 Occupancy sensing switch can be installed in any location.
5 Fan load applies to 120 V ~ only (not for $277 \mathrm{~V} \sim$ ).

| Job Name: |
| :--- |
| $\square$ |
| Job Number: |

Model Numbers:

## Colors and Finishes

Gloss Finishes


Satin Finishes


Hot
HT


Merlot MR


Eggshell ES


Plum PL


Turquoise TQ


Biscuit
Bl


Sienna SI



Desert Stone
DS
.


Taupe
TP


Greenbriar GB


Bluestone BG

Stone
ST

.


Limestone
LS

Snow SW

Terracotta TC




Sea Glass SG

- Due to printing limitations, colors and finishes shown cannot be guaranteed to match actual product colors perfectly.
- Color chip keychains are available for more precise color matching:

Gloss Finishes: DG-CK-1
Satin Finishes: SC-CK-1

| Job Name: |
| :--- |
| $\square$ |
| Job Number: $\quad \square$ |

## Model Numbers:

## Maestro® Occupancy sensing switch

The Lutron® Maestro® Occupancy sensing switch combines a Maestro® switch with a passive infrared occupancy or vacancy sensor. The sensor detects the heat from occupants moving within an area to determine whether the space is occupied. Based on the feedback from the sensor, the occupancy sensing switch will adjust the load accordingly.

## Features

- Passive infrared sensors with exclusive Lutron® XCT $_{\text {тм }}$ Technology for fine motion detection
- $180^{\circ}$ sensor field-of-view
- Up to $30 \mathrm{ft} \times 30 \mathrm{ft}(9 \mathrm{~m} \times 9 \mathrm{~m})\left[900 \mathrm{ft}^{2}\left(81 \mathrm{~m}^{2}\right)\right]$ major motion coverage and $20 \mathrm{ft} \times 20 \mathrm{ft}(6 \mathrm{~m} \times 6 \mathrm{~m})\left[400 \mathrm{ft}^{2}\left(36 \mathrm{~m}^{2}\right)\right]$ minor motion coverage
- Occupancy version can be set to Auto-ON / Auto-OFF or Manual-ON / Auto-OFF
- Vacancy version available to meet CA Title 24 requirements
- Adjustable timeout (1, 5, 15, or 30 minutes) and high/low sensitivity adjustment
- Occupancy sensing switch loads: incandescent, halogen, ELV, MLV, CFL, LED, magnetic fluorescent, electronic fluorescent, and fan.

Models available
MS-OPS2
MS-OPS5M
MS-OPS6M2-DV
MS-OPS6M2N-DV
UMS-OPS6M-DV
MS-VPS2
MS-VPS5M
MS-VPS6M2-DV
MS-VPS6M2N-DV
UMS-VPS6M-DV


MS-OPS2
MS-OPS5M
MS-OPS6M2-DV
MS-OPS6M2N-DV
MS-VPS2
MS-VPS5M
MS-VPS6M2-DV
MS-VPS6M2N-DV

## Specifications

## Regulatory Approvals

- UL® Listed to U.S. and Canadian safety requirements.
- NOM Certification (MS- models only).


## Power

- $120 \mathrm{~V} \sim 50 / 60 \mathrm{~Hz}{ }^{1}$
- 120-277 V~ $50 / 60 \mathrm{~Hz}^{1}$


## Key Design Features

- All lighting loads.
- Crush/tamper resistant lens.
- Smart ambient light detection.
- Adaptive switching algorithm for extended relay life.
- $\mathrm{XCT}_{\text {тм }}$ Technology for fine motion detection.
- Lutron® patented Softswitch®.


## Environment

- Ambient operating temperature: $32{ }^{\circ} \mathrm{F}$ to $104^{\circ} \mathrm{F}$ $\left(0^{\circ} \mathrm{C}\right.$ to $40^{\circ} \mathrm{C}$ ), $0 \%-90 \%$ humidity, non-condensing. Indoor use only.


## Warranty

- 5-Year Limited Warranty. For additional Warranty information, please visit www./utron.com/ TechnicalDocumentLibrary/Sensor_Warranty.pdf


## Additional Information

- When using MS-OPS2, MS-OPS5M, MS-OPS6M2-DV, MS-VPS2, MS-VPS5M, or MS-VPS6M2-DV on GFI-controlled circuits, please see Lutron® P/N 048440.
- For Maestro® Occupancy sensing dimmer models, please see Lutron® P/N 369270.
- For use with MA-AS, MSC-AS, MA-AS-277, or MSC-AS-277 to control the load from more than two locations, please see Lutron® P/N 048435.
- For more information, please see www.lutron.com/ occvacsensors
- Lutron Technical Hotline: 1.800.523.9466.


## Advanced Features

## Switching

- Standard zero cross-maximizes relay life by switching at the point of minimum energy on the AC power curve.
- Adaptive zero cross-maximizes relay life by switching at the point of minimum energy on the AC power curve. Actively adapts to variations in relay timing.
- Lutron® Patented Softswitch circuit-eliminates arcing at mechanical contacts when loads are switched. Extends relay life to an average of $1,000,000$ cycles (on/off) for resistive, capacitive, or inductive sources.


## XCT $_{\text {тм }}$ Technology

Advanced sensing technology for fine motion detection ensures that the lights stay on while the room is occupied, and that the sensor does not turn on falsely when there is no occupancy in the room. For more information, see www.lutron.com/ TechnicalDocumentLibrary/white\%20paper\%20 XCT\%204-23-09\%20B.pdf

[^1]| Job Name: |
| :--- |
| $\square$ |
| Job Number: $\quad \square$ |

Model Numbers:

## Custom Settings

## Ambient Light Detection

Lights turn on only if natural light in room is low.

- Smart-Ambient light threshold adjusts precisely to the user's preference.

Instructions: If switch turns on when there is enough natural light, or if switch does not turn on when there is not enough natural light, press the large button within 5 seconds of entering the room. Over time, this interaction will "teach" the switch your preferred setting.

- Presets-high, medium, low, and disabled.


## Sensor Operation

- Occupancy/Vacancy: Auto-ON / Auto-OFF or Manual-ON / Auto-OFF
- Vacancy only: Manual-ON / Auto-OFF only


## Timeout Options

(See Additional Features on page 5 for default settings)

- 1 Minute
- 5 Minutes
- 15 Minutes
- 30 Minutes


## Sensitivity Options

- High sensitivity (default)
- Low sensitivity


## Auto-ON Options

(MS-OPS and UMS-OPS only)

- Occupancy (default): Auto-ON / Auto-OFF
- Vacancy*: Manual-ON / Auto-OFF
- Low Light: Lights turn on only if needed (if ambient light is below threshold)
* There is a 15-second grace period that begins when the lights are automatically turned off, during which the lights will automatically turn back on in response to motion. This grace period is provided as a safety and convenience feature in the event that the lights turn off while the room is still occupied, so that the user does not need to manually turn the lights back on. After 15 seconds, the grace period expires and the lights must be manually turned on.


## Manual Off-While-Occupied Options

(MS-OPS and UMS-OPS only - see Additional Features on page 5 for default setting)

- Enabled
- When the Occupancy sensing switch is manually turned off, the Occupancy sensing switch will not turn the lights back on automatically while the room is occupied.
- Once the room is vacated, the Auto-ON feature returns to normal operation after the timeout period has expired.
- This may be the preference in conference rooms or classrooms while viewing presentations. This feature requires motion to keep the lights off.
- Disabled
- When the Occupancy sensing switch is manually turned off, the Auto-ON feature will return to normal operation after 25 seconds.
- This may be the preference if the user always wants the lights to turn on upon entering and the lights to turn off when the room is vacant.

| Job Name: |
| :--- |
| $\square$ |
| Job Number: $\quad \square$ |

Model Numbers:

## Selection Matrix



Model Number ${ }^{1}$

| MS-OPS2-XX |  | $\checkmark$ |  |  | 2 A |  |  |  |  | $\checkmark$ |  | 1 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MS-OPS5M-XX |  |  | $\checkmark$ | $\checkmark$ | 5 A |  | 3 A | 3 A |  | $\checkmark$ |  | 2, 3, 5 |
| MS-OPS6M2-DV-XX |  |  | $\checkmark$ | $\checkmark$ |  | 6 A | 3 A | 3 A |  | $\checkmark$ |  | 2-6 |
| MS-OPS6M2N-DV-XX |  |  | $\checkmark$ | $\checkmark$ |  | 6 A | 3 A | 3 A | $\checkmark$ |  |  | 7-11 |
| UMS-OPS6M-DV-XX ${ }^{5}$ |  |  |  | $\checkmark$ |  | 6 A | 3 A | 3 A |  |  | 25 W | 12-17 |
| MS-VPS2-XX | $\checkmark$ | $\checkmark$ |  |  | 2 A |  |  |  |  | $\checkmark$ |  | 1 |
| MS-VPS5M-XX | $\checkmark$ |  | $\checkmark$ | $\checkmark$ | 5 A |  | 3 A | 3 A |  | $\checkmark$ |  | 2, 3, 5 |
| MS-VPS6M2-DV-XX | $\checkmark$ |  | $\checkmark$ | $\checkmark$ |  | 6 A | 3 A | 3 A |  | $\checkmark$ |  | 2-6 |
| MS-VPS6M2N-DV-XX | $\checkmark$ |  | $\checkmark$ | $\checkmark$ |  | 6 A | 3 A | 3 A | $\checkmark$ |  |  | 7-11 |
| UMS-VPS6M-DV-XX ${ }^{5}$ | $\checkmark$ |  |  | $\checkmark$ |  | 6 A | 3 A | 3 A |  |  | 25 W | 12-17 |

1 XX in model number represents color/finish code.
2 Occupancy sensors can be configured as Auto-ON / Auto-OFF or Manual-ON / Auto-OFF. Vacancy sensors are configured as Manual-ON / Auto-OFF only.
3 Standard mechanical 3-way switch cannot be combined with companion switch.
4 Companion switch MA-AS, MSC-AS, MA-AS-277, or MSC-AS-277 is required for multi-location installations (more than two locations controlling the same lighting circuit). Up to nine companion switches may be connected.
5 BAA-compliant models.
$\square$

## Additional Features

|  | Crush/tamper-resistant lens |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Ambient light detection |  |  |  |  |  |
|  |  |  | Switching |  |  |  |
|  |  |  |  | $\mathrm{XCT}_{\text {tm }}$ technology |  |  |
|  |  |  |  |  | Manual off-while-occupied default setting |  |
|  |  |  |  |  |  | Default timeout (minutes) |
| Model Number ${ }^{1}$ |  |  |  |  |  |  |
| MS-OPS2-XX |  | Smart | Standard | $\checkmark$ | Disabled | 5 |
| MS-OPS5M-XX |  | Smart | Standard | $\checkmark$ | Disabled | 5 |
| MS-OPS6M2-DV-XX | $\checkmark$ | Smart | Adaptive | $\checkmark$ | Enabled | 15 |
| MS-OPS6M2N-DV-XX | $\checkmark$ | Smart | Adaptive | $\checkmark$ | Enabled | 15 |
| UMS-OPS6M-DV-XX |  | Presets | Softswitche | $\checkmark$ | Enabled | 5 |
| MS-VPS2-XX |  | Smart | Standard | $\checkmark$ |  | 5 |
| MS-VPS5M-XX |  | Smart | Standard | $\checkmark$ |  | 5 |
| MS-VPS6M2-DV-XX | $\checkmark$ | Smart | Adaptive | $\checkmark$ |  | 15 |
| MS-VPS6M2N-DV-XX | $\checkmark$ | Smart | Adaptive | $\checkmark$ |  | 15 |
| UMS-VPS6M-DV-XX |  | Presets | Softswitche | $\checkmark$ |  | 5 |

${ }^{1} X X$ in model number represents color/finish code.

| Job Name: |  | Model Numbers: |
| :--- | :--- | :--- |
| $\square$ | $\square$ | $\square$ |
| Job Number: $\square$ | $\square$ | $\square$ |

## Occupancy Sensing Switch Placement and Operation

- The ability of the Occupancy sensing switch to detect motion requires line-of-sight of room occupants. The Occupancy sensing switch must have an unobstructed view of the room.
- Hot objects and moving air currents can affect the performance of the Occupancy sensing switch.
- The performance of the Occupancy sensing switch depends on a temperature differential between the ambient room temperature and that of room occupants. Warmer rooms may reduce the ability of the Occupancy sensing switch to detect occupants.


## Definitions

Major motion: movement of a person entering or passing through an area.
Minor motion: movement of a person occupying an area and engaging in small activities (e.g., reaching for a telephone, turning the pages of a book, opening a file folder, picking up a coffee cup).

## NEMA WD7 Coverage



Major motion coverage: $900 \mathrm{ft}^{2}\left(81 \mathrm{~m}^{2}\right)$
$\square$ Minor motion coverage: $400 \mathrm{ft}^{2}\left(36 \mathrm{~m}^{2}\right)$


Horizontal Beam Diagram


Vertical Beam Diagram


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| Job Name: |
| :--- |
| $\square$ |
| Job Number: $\quad \square$ |

## Model Numbers: <br> Model Numbers:

Job Number:

## Dimensions

Measurements shown as: in (mm).

Front View


Side View


## Ganging

When ganging with other controls in the same wallbox, remove inside fins (UMS-OPS6M-DV and UMS-VPS6M-DV only).

Each control has inside fins removed


Middle of Gang control has all fins removed


| Job Name: |
| :--- |
| $\square$ |
| Job Number: $\quad \square$ |

Model Numbers:

## Mounting



## Operation



UMS-OPS6M-DV
UMS-VPS6M-DV

## IMPORTANT NOTICE

FASS ${ }_{\text {тм }}$ - Front Accessible Service Switch To service load, remove power by pulling the FASS тм $^{\text {s }}$ switch out completely on either the Dimmer or Companion Dimmer. After servicing load, push the FASS $_{\text {tw }}$ switch back in fully to restore power to the control.

| Job Name: |  | Model Numbers: |
| :--- | :--- | :--- |
| $\square$ | $\square$ | $\square$ |
| Job Number: $\square$ | $\square$ | $\square$ |

## Wiring Diagrams

## Wiring Diagram 1

Single Location Installation (120 V~)
-OPS2 and -VPS2


Wiring Diagram 2
Single Location Installation (120 V~) ${ }^{1}$
-OPS5M, -OPS6M2-DV, -VPS5M, -VPS6M2-DV


## Wiring Diagram 3

3-way Installation with Standard Mechanical Switch (120 V~) 2, 3
-OPS5M, -OPS6M2-DV, -VPS5M, -VPS6M2-DV


When using controls in single location installations, tighten the blue terminal or cap blue wire. Do not connect the blue terminal/wire to any other wire or to ground.
2 Only one Occupancy sensing switch can be used per multi-location circuit.
3 A single standard mechanical 3-way switch or up to 9 companion switches may be connected to most Occupancy sensing switches.
Standard mechanical 3-way switch cannot be combined with companion switch. Total blue terminal wire length may be up to $150 \mathrm{ft}(46 \mathrm{~m}$ ).
Continued on next page...
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Page 9

| Job Name: |
| :--- |
| $\square$ |
| Job Number: $\quad \square$ |

Model Numbers:

## Wiring Diagrams (continued)

## Wiring Diagram 4

3-way Installation with Standard Mechanical Switch (277 V~) $)^{1,2,3}$
-OPS6M2-DV, -VPS6M2-DV


## Wiring Diagram 5

Multi-Location Installation (120 V~) ${ }^{1,2,4}$


1 A single standard mechanical 3-way switch or up to 9 companion switches may be connected to most Occupancy sensing switches. Standard mechanical 3-way switch cannot be combined with companion switch. Total blue terminal wire length may be up to $150 \mathrm{ft}(46 \mathrm{~m}$ ).
2 Only one Occupancy sensing switch can be used per multi-location circuit.
3 Fan load applies to 120 V~ only (not for 277 V~).
4 Occupancy sensing switch can be installed in any location.

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| Job Name: |
| :--- |
| $\square$ |
| Job Number: $\quad \square$ |

Model Numbers:

Wiring Diagrams (continued)
Wiring Diagram 6
Multi-Location Installation (277 V~) ${ }^{1,2,3,4}$
-OPS6M2-DV, -VPS6M2-DV with MA-AS-277 or MSC-AS-277


1 A single standard mechanical 3-way switch or up to 9 companion switches may be connected to most Occupancy sensing switches. Standard mechanical 3-way switch cannot be combined with companion switch. Total blue terminal wire length may be up to $150 \mathrm{ft}(46 \mathrm{~m}$ ).
2 Only one Occupancy sensing switch can be used per multi-location circuit.
3 Occupancy sensing switch can be installed in any location.
4 Fan load applies to 120 V~ only (not for $277 \mathrm{~V} \sim$ ).


## Wiring Diagrams (continued)

## Wiring Diagram 7

Single Location Installation (120-277 V~) ${ }^{1,2}$
-OPS6M2N-DV, -VPS6M2N-DV


## Wiring Diagram 8

3-way Installation with Standard Mechanical Switch (120 V~) 3, 4
-OPS6M2N-DV, -VPS6M2N-DV


1 When using controls in single location installations, tighten the blue terminal or cap blue wire. Do NOT connect the blue terminal/wire to any other wire or to ground.
2 Fan load applies to 120 V ~ only (not for $277 \mathrm{~V} \sim$ ).
3 Only one Occupancy sensing switch can be used per multi-location circuit.
4 A single standard mechanical 3 -way switch or up to 9 companion switches may be connected to most Occupancy sensing switches.
Standard mechanical 3 -way switch cannot be combined with companion switch. Total blue terminal wire length may be up to $150 \mathrm{ft}(46 \mathrm{~m})$.
Continued on next page...
背: LUTRON SPECIFICATION SUBMITTAL

| Job Name: |
| :--- |
| $\square$ |
| Job Number: $\quad \square$ |

Model Numbers:

## Wiring Diagrams (continued)

## Wiring Diagram 9

3-way Installation with Standard Mechanical Switch (277 V~) 1, 2, 3
-OPS6M2N-DV, -VPS6M2N-DV


1 Only one Occupancy sensing switch can be used per multi-location circuit.
2 A single standard mechanical 3-way switch or up to 9 companion switches may be connected to most Occupancy sensing switches. Standard mechanical 3-way switch cannot be combined with companion switch. Total blue terminal wire length may be up to 150 ft ( 46 m ).
3 Fan load applies to 120 V~ only (not for 277 V~).

| Job Name: |
| :--- |
| $\square$ |
| Job Number: $\quad \square$ |

Model Numbers:

## Wiring Diagrams (continued)

Wiring Diagram 10
Multi-Location Installation (120 V~ $)^{1,2,3}$
-OPS6M2N-DV, -VPS6M2N-DV with MA-AS or MSC-AS


## Wiring Diagram 11

Multi-Location Installation (277 V~) 1, 2, 3, 4
-OPS6M2N-DV, -VPS6M2N-DV with MA-AS-277 or MSC-AS-277


1 A single standard mechanical 3-way switch or up to 9 companion switches may be connected to most Occupancy sensing switches. Standard mechanical 3-way switch cannot be combined with companion switch. Total blue terminal wire length may be up to $150 \mathrm{ft}(46 \mathrm{~m}$ ).
2 Only one Occupancy sensing switch can be used per multi-location circuit.
3 Occupancy sensing switch can be installed in any location.
4 Fan load applies to 120 V ~ only (not for $277 \mathrm{~V} \sim$ ).

背: LUTRON SPECIFICATION SUBMITTAL

| Job Name: |
| :--- |
| $\square$ |
| Job Number: $\quad \square$ |

Model Numbers:

## Wiring Diagrams (continued)

Wiring Diagram 12
Single Location Installation ${ }^{1,2}$
-OPS6M-DV and -VPS6M-DV


## Wiring Diagram 14

Multi-Location Installation (120 V~) 1, 4, 5, 6
-OPS6M-DV and -VPS6M-DV with MA-AS or MSC-AS


## Neutral

Wiring Diagram 15
Multi-Location Installation (277 V~) ${ }^{1,2,3,4,5,6}$
-OPS6M-DV and -VPS6M-DV with MA-AS-277 or MSC-AS-277


## Neutral

When using controls in single location installations, tighten the blue terminal or cap blue wire. Do not connect the blue terminal/wire to any other wire or to ground.
2 Fan load applies to 120 V ~ only (not for $277 \mathrm{~V} \sim$ ).
3 Optional shunt capacitor must be installed inside the load fixture or in a separate J -box.
4 Up to 9 companion switches may be connected to an Occupancy sensing switch. Total blue terminal wire length may be up to $250 \mathrm{ft}(76 \mathrm{~m})$.
5 Only one Occupancy sensing switch can be used per multi-location circuit.
Occupancy sensing switch can be installed in any location.
Continued on next page...
兴LUTRON SPECIFICATION SUBMITTAL

| Job Name: |
| :--- |
| $\square$ |
| Job Number: $\quad \square$ |

Model Numbers:

## Wiring Diagrams (continued)

## Wiring Diagram 16

Multi-Location Installation with Shunt Capacitor (120 V~) $)^{1,2,3,4}$
-OPS6M-DV and -VPS6M-DV with MA-AS or MSC-AS


Neutral
Wiring Diagram 17
Multi-Location Installation with Shunt Capacitor ( $277 \mathrm{~V} \sim)^{1,2,3,4,5}$
-OPS6M-DV and -VPS6M-DV with MA-AS-277 or MSC-AS-277


Neutral

1 Optional shunt capacitor must be installed inside the load fixture or in a separate J-box.
2 Up to 9 companion switches may be connected to an Occupancy sensing switch. Total blue terminal wire length may be up to $250 \mathrm{ft}(76 \mathrm{~m})$
3 Only one Occupancy sensing switch can be used per multi-location circuit.
4 Occupancy sensing switch can be installed in any location.
5 Fan load applies to 120 V ~ only (not for $277 \mathrm{~V} \sim$ ).

| Job Name: |
| :--- |
| $\square$ |
| Job Number: |

Model Numbers:

## Colors and Finishes

Gloss Finishes


Satin Finishes


Hot
HT


Merlot MR


Eggshell ES


Plum PL


Turquoise TQ


Biscuit
Bl


Sienna SI



Desert Stone
DS
.


Taupe
TP


Greenbriar GB


Bluestone BG

Stone
ST

.


Limestone
LS

Snow SW

Terracotta TC




Sea Glass SG

- Due to printing limitations, colors and finishes shown cannot be guaranteed to match actual product colors perfectly.
- Color chip keychains are available for more precise color matching:

Gloss Finishes: DG-CK-1
Satin Finishes: SC-CK-1

| Job Name: |
| :--- |
| $\square$ |
| Job Number: $\quad \square$ |

## Model Numbers:


[^0]:    1 Maximum current ratings for individual models are provided in the Selection Matrix on page 4.

[^1]:    1 Maximum current ratings for individual models are provided in the Selection Matrix on page 4.

