

\_\_\_\_\_ Project name  
 \_\_\_\_\_ Prepared by  
 / / Date



**AirLink™**  
 enabled by Lutron®

## Ceiling-Mounted Wireless Occupancy/Vacancy Sensor

Catalog #: **ALW OS/VS CM**

Part #: **624094**

**624615**



The Ceiling-Mounted Wireless Occupancy & Vacancy Sensors are wireless, battery-powered, passive infrared (PIR) sensors that automatically control lights via RF communication. These sensors detect heat (IR radiation of 9.5 μm) from people in motion to determine occupancy. The sensors then wirelessly transmit the commands to the associated dimming & switching devices to turn the lights ON or OFF. They combine both convenience & exceptional energy savings potential along with ease of installation.

### Applications



Small offices



Conference rooms



Classrooms



Lounges

### Features

All wireless controls are also compatible with the wireless hub which provides a simple setup process using a standard web browser on any Wi-Fi enabled phone, tablet or computer. The hub enables control and monitoring of all wireless devices. The hub can be added at any time. System reprogramming required.

#### Default factory settings shown in bold

- Wireless occupancy sensor has 3 settings available: Auto-On/Auto-Off, Auto-On Low-Light/Auto-Off, and Manual-On/Auto-Off. Auto-On options:
  - **Enabled:** Sensor turns lights ON and OFF automatically
  - Low Light: Sensor turns light ON automatically only in low ambient light conditions; sensor turns lights OFF automatically
  - Disabled\*: Lights must be turned ON manually from dimming or switching device; sensor turns lights OFF automatically
- Auto-On Low-Light feature will turn lights on automatically only if there is less than approximately 1 fc (10 Lux) of ambient light
- Uses Lutron Clear Connect Technology and Lutron XCT Technology with passive infrared motion detection for fine motion detection
- Simple and intuitive adjustments available for Timeout,

Auto-On, and Activity settings:

- Time out options: 1 minute\*\*, 5 minutes, **15 minutes**, 30 minutes
  - Activity options: **Low**, Medium, High
- Supports advanced occupancy features, such as dependent occupancy groups and customizable occupied/unoccupied presets in some systems
- Multiple sensors can be added for extended coverage
- Multiple ceiling-mount methods available for different ceiling materials
- Front accessible test buttons make programming easy

\* 15 second grace period begins when the lights are automatically turned OFF. They automatically turn back ON in response to motion. This grace period is provided as a safety and convenience feature if the lights turn OFF while the room is still occupied. After 15 seconds, the lights must be manually turned ON

\*\* Intended for use in high-activity, briefly occupied areas only

### Certifications & Affiliations





## Specifications

### Regulatory Approvals

- Lutron Quality Systems Registered to ISO 9001:2008
- FCC & IC certified
- COFETEL, ANATEL, SUTEL
- Meets CA (U.S.A.) Energy Commission Title 24 requirements
- cULus Listed
- RoHS compliant

### Range

- 360° coverage ranges from 324ft<sup>2</sup> (30.2m<sup>2</sup>) to 676ft<sup>2</sup> (62.4m<sup>2</sup>), depending on mounting height
- Local load controls must be located within 60ft (18m) line-of-sight—or 30ft (9m) through walls—of a sensor.

### Power and Performance

- Frequency: 431.0 – 437.0MHz (U.S.A, Canada, Mexico, Brazil)
- Operating voltage: 3V ==
- Operating current: 14µA
- Requires one CR 123 lithium battery
- 10-year battery life
- Non-volatile memory (settings are stored during power loss)

### Environmental

- Ambient operating temp: 32°F to 104°F (0°C to 40°C)

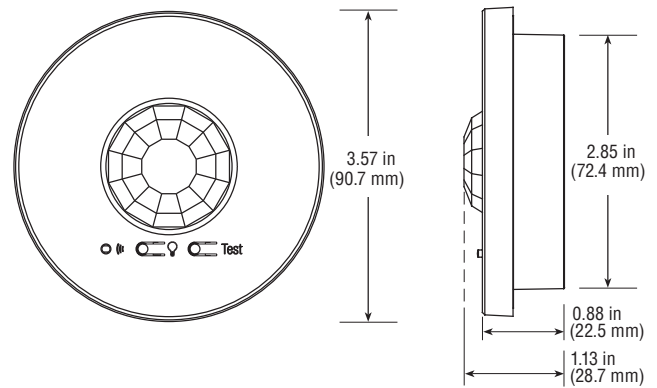
### Testing

- Sensor Coverage Test: front accessible test button, lens illuminates orange in response to motion during test mode and is visible from 60ft (18m)
- Wireless Communication Test: front accessible test button, turn associated loads on and off

### Warranty

- 5-year Limited Warranty

## Dimensions



## Ordering Information

### Sensors

Part #	Catalog #	Description
624094	ALW OS CM	AirLink System – Ceiling-Mounted Wireless Occupancy Sensor
624615	ALW VS CM	AirLink System – Ceiling-Mounted Wireless Vacancy Sensor

### Sensor Accessories

Part #	Catalog #	Description
632632	MASK KIT	Sensor Masking Kit
632633	CM-BKT	Ceiling Mount Bracket
632634	CM-WG	Ceiling Mount Wireguard



## Sensor Placement

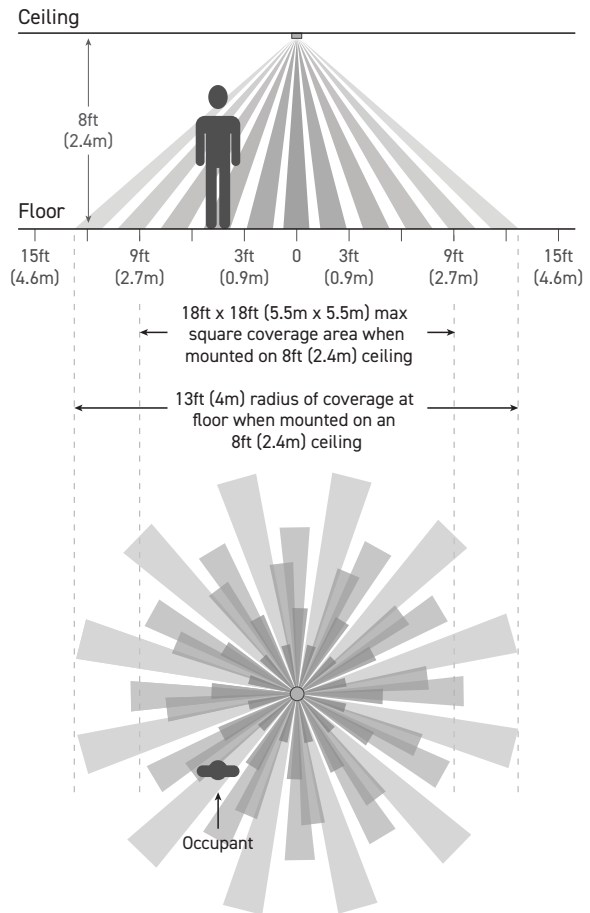
- To detect motion, the sensor requires line-of-sight of room occupants. The sensor must have an unobstructed view of the room. DO NOT mount behind or near tall cabinets, shelves, hanging fixtures, ceiling fans, etc. The sensor cannot see through glass objects such as patio or shower doors.
- Hot objects and moving air currents can affect the performance of the sensor. To ensure proper operation, the sensor should be mounted at least 4ft (1.2m) away from HVAC vents and light bulbs that are below the ceiling line.
- The performance of the sensor depends on a temperature differential between the ambient room temperature and that of room occupants. Warmer rooms may reduce the ability of the sensor to detect occupants.
- Devices emitting Radio Frequency (RF) energy can affect the performance of sensors. To ensure proper operation, sensors should be mounted at least 4ft (1.2m) away from devices that emit radio waves (e.g., microwave ovens, wireless routers or other wireless devices)

## Sensor Coverage Chart

Ceiling Height	Maximum Square Coverage Area	
8ft (2.4m)	18ft X 18ft (5.5m X 5.5m)	324ft <sup>2</sup> (30.2m <sup>2</sup> )
9ft (2.7m)	20ft X 20ft (6.1m X 6.1m)	400ft <sup>2</sup> (37.2m <sup>2</sup> )
10ft (3.0m)	22ft X 22ft (6.7m X 6.7m)	484ft <sup>2</sup> (44.9m <sup>2</sup> )
12ft (3.7m)	26ft X 26ft (7.9m X 7.9m)	676ft <sup>2</sup> (62.4m <sup>2</sup> )

## Coverage Pattern

(If sensor is mounted in center of room)





## Mounting

Temporary mounting is optional to test sensor coverage and wireless communication before permanently installing the sensor.

### Drop Ceiling (Compressed Fiber Ceiling Tile)

- The mounting wire is provided for both temporary and permanent mounting of the sensor to ceiling tiles. It is designed to allow temporary mounting, testing, and repositioning (if necessary) of the sensor without damaging a ceiling tile. Once the final position of the sensor has been chosen, the mounting wire should be twisted together to permanently secure the sensor in place.

### Solid Ceiling (Drywall, Plaster, Concrete, or Wood)

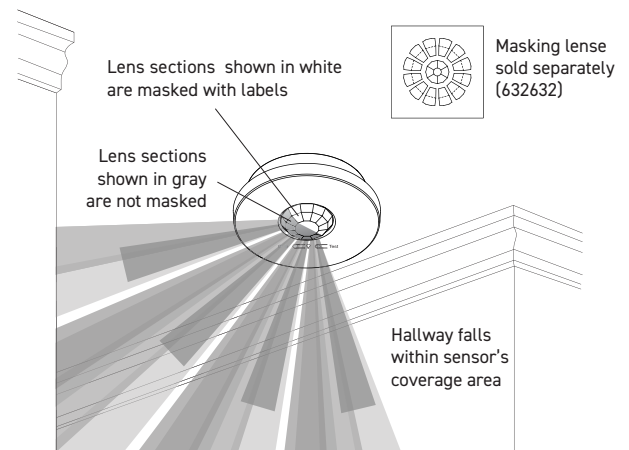
- Permanent mounting: Screws and anchors (for drywall or plaster) provided to mount the sensor.

### Recess-mount

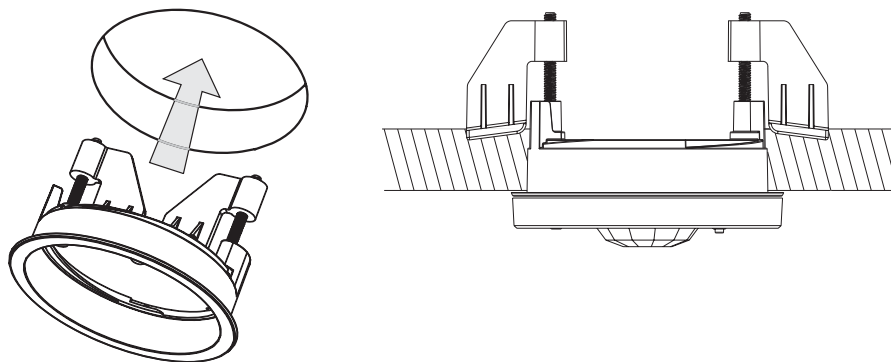
- Do not recess-mount sensor in a metal surface.
- Recess-mounting ring requires an opening of 3in (76mm) in diameter.
- Recess-mounting ring secures internally to ceiling. Sensor twists into the recess mounting ring and sits flush with ceiling (see image).
- Recess-mounting ring purchased as a separate kit (632633)

## Lens Masking

Whenever possible, the sensor should be installed in a location where it cannot view areas outside the intended space, such as hallways or adjacent rooms. If this situation cannot be avoided, portions of the lens may be masked to block the view of the sensor into undesired areas. Ten (10) lens masks may be purchased in the kit (632632).



## Recess-mount Diagram





**AirLink™**  
enabled by Lutron®

# Ceiling-Mounted Wireless Occupancy/Vacancy Sensor

## The AirLink System

Wireless controls & sensors



Wireless remotes & switches



Occupancy/Vacancy & Daylight sensors



AirLink-integrated Fixtures

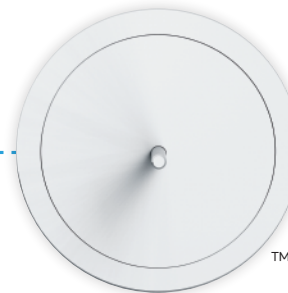


AirLink-compatible Fixtures



Plug load controllers

Centralized control & integration



Wireless hub



Wired / Ethernet

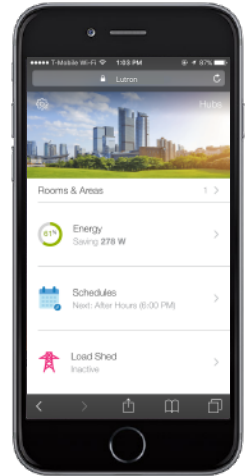


Demand Response



BACnet integration

Simple-to-use software



Lighting control web app

## Contact LSI Controls



Sales  
controls.sales@lsi-industries.com



Support  
controls.support@lsi-industries.com  
1 (800) 436-7800 (support, option 8)



More information  
For more information on AirLink, visit our website at [www.lsi-airlink.com/airlink](http://www.lsi-airlink.com/airlink)