

PMSC36 Series Occupancy Motion Sensor


Applications:

- Intermittent use areas
- Private offices
- Storage rooms
- Restrooms
- Study rooms
- Show rooms
- Conference rooms
- Display areas
- Warehouses
- Library aisles
- Walkways
- Lobbies

Features:

- Long life, low maintenance
- SMD technology design
- Automatic operation
- Integrated PIR sensor unit
- Relay output
- 3 dual-element PIR sensors
- 360° coverage
- Adjustable ON-Time
- Adjustable daylight mode
- Adjustable sensitivity
- Activity LED
- CE, RoHS, UR, TUV-EMC

Onstate passive infrared (PIR) occupancy motion sensors automatically shut off power to lights when the room is not occupied to provide energy savings. It could be used to meet local energy use standards and requirements. The PMSC36 uses three high sensitivity sensors and a multi-level, high-density lens to provide overlapping 360° coverage while reducing no-sensing zones for reliable, consistent operation. It features relay output, adjustable delay time, adjustable sensitivity and daylight OFF level to suit multiple applications. The PMSC36 triggers the relay to turn on the lights once motion is detected and will reset the ON-time every time it detects motion for continuous operation. Onstate occupancy motions sensors have a short payback period (less than a year) and provide long-term energy savings.

Specifications:

Power: 120VAC (4W), 240VAC (7W)
 24VDC (14-17VAC) 1W Max.

Load Control: Relay (NO), works with inductive loads.
 800W@120V, 1200W@240V, 10A@24V.

Daylight ON mode: Adjustable, <3Lux to daylight

ON-Time: Adjustable, Min: 8 seconds. Max: 8 minutes

Sensitivity: Adjustable, min-max

Detection: up to 40ft radius (12m), 360 degrees

Temperature: -10°C to +40°C

Installation Height: 5-12ft (1.5-3.6m)

Environment: Dry, non-condensing location

Status Indicator: Green LED, flashing activity

Dimension: 4.65" (D) x 2.25" (H)

Weight: 0.5lb (220g)

Mounting: Ceiling mount, electrical box

Wiring: 3 wires (120/240V), 4 wires (24V)

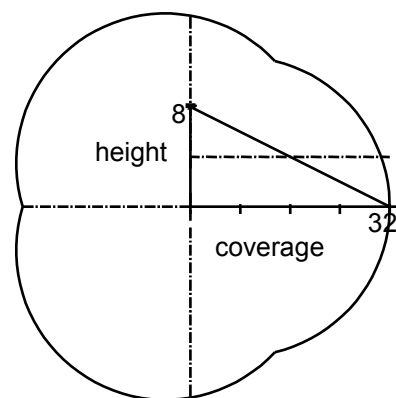
Warranty: 2 years

Part Coding: PMSC36x-y

x= voltage S=120VAC(standard), E=240VAC(Europe),
 L=24VDC (low voltage)

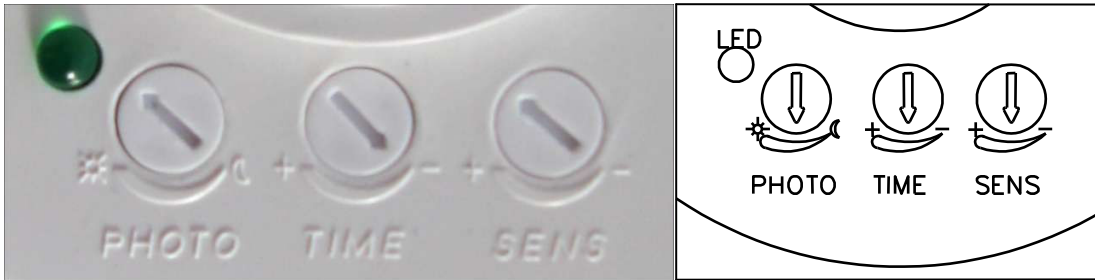
Other low voltage models available.

y=options 2=AUTO (Automatic)

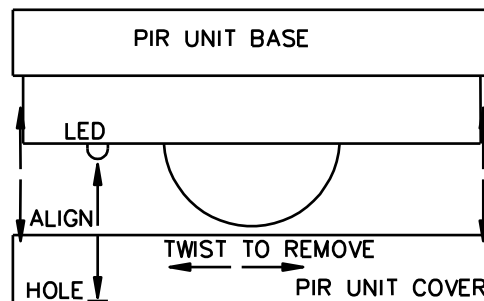
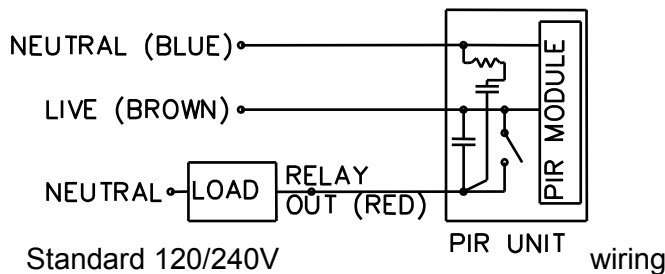


PMSC36 Motion Sensor Functions:

Function:	Description
Daylight mode light level (<i>PHOTO</i>)	The <i>PHOTO</i> function sets the light level for daylight mode. The sensor unit will detect motion, but the relay will not turn on in daylight mode. The PIR unit will operate normally again once the ambient light level is below the light level setting. Counter-clockwise direction (moon side) will decrease the light level for daylight mode. Clockwise direction (sun side) will require brighter light for daylight mode. If the adjustment is full clockwise (sun side), the PIR unit will always be active.
ON-Time (<i>TIME</i>)	Once motion is detected, the output relay turns on and the delay timer starts. If there is no motion detected within the preset delay time, the timer will not reset and the relay will turn off the lights. The timer will reset with detected motion for continuous ON-time. Rotate the <i>TIME</i> adjustment counter-clockwise (- side) to decrease delay time. Clockwise direction (+ side) to increase delay time.
Sensor sensitivity (<i>SENS</i>)	The <i>SENS</i> function sets the sensitivity of the PIR unit to detect motion. Rotate the <i>SENS</i> adjustment counter-clockwise (- side) to decrease overall sensitivity and decrease detection range. Clockwise direction (+ side) to increase sensitivity and detection range.
LED activity	Power and activity status indicator. The LED will flash two times per second when there is motion detected. If the LED does not flash, there maybe no motion detected or a problem with the sensor unit.



PIR motion sensor adjustment controls.



Installation Instructions

CAUTION
ELECTRIC SHOCK HAZARD.
USE PROPER SAFETY PRECAUTIONS.



Please carefully read through the installation instructions prior to installation.

NOTES:

1. Should be installed by qualified personnel.
2. Follow applicable local electrical codes.
3. DO NOT install near fans, HVAC air vents, or transient warm/cold objects or sources.

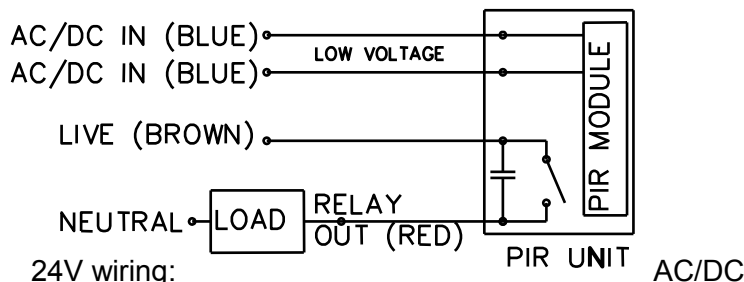
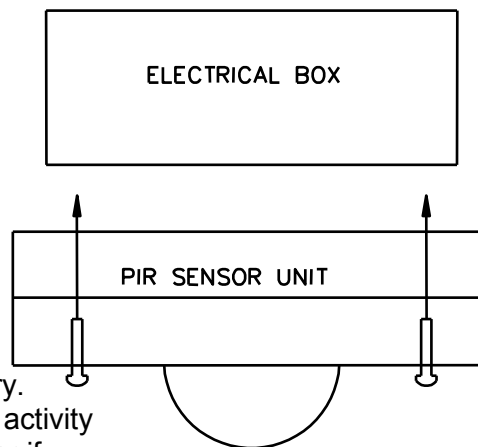
Parts included:

- 1x Occupancy PIR motion sensor
- 1x masking sticker, label
- mounting screws/hardware

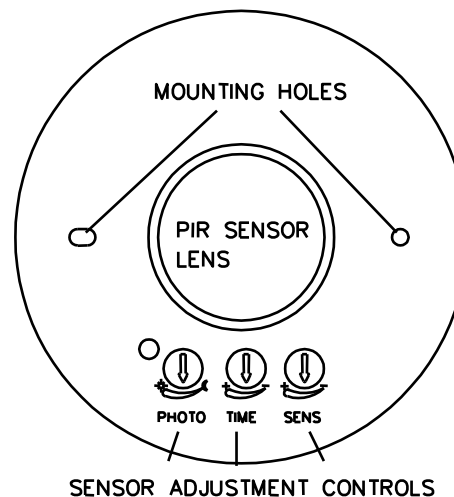
Parts required:

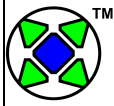
- 1x single-gang or ceiling electrical box
- tools and general electrical hardware

1. Determine mounting location on ceiling. The PIR sensor can only sense direct line-of-sight.
2. Shut off power source. Install power cable to mounting location.
3. An electrical box may be required. Install and wire. The motion sensor base has mounting hole spacing for single-gang or ceiling/round electrical boxes.
4. Twist PIR cover (arrow direction) until it stops, then pull to remove the cover.
5. Insert PIR unit wires into electrical box. Connect power live to PIR unit live (brown) with twist caps/nuts. Connect power neutral to PIR unit neutral (blue) and load neutral. Connect relay out (red) to load live. See wiring diagram below. 24VDC is blue/blue power input and brown/red relay out control.
6. Mount PIR sensor unit.
7. Apply power. The default settings is PIR stays on in daylight, minimum time delay (8 sec), and maximum sensitivity. Test PIR unit. Adjust unit settings if necessary. Insert PIR cover plate onto PIR unit. Make sure that the activity LED is aligned with the cover hole. Apply masking sticker if necessary to block unwanted sensing area.



24V wiring:
 IN, Relay In, Relay Out.
 (120/240V PIR unit wiring: Live, Neutral, Relay Out.)





Testing:

1. Check the *TIME* adjustment is full counter-clockwise (- side).
2. Check the *PHOTO* adjustment is full clockwise (sun side).
3. Apply power to PIR unit. The LED will flash and the relay will not turn until 10s later. After a warm-up delay of 60s, the lights should be off and the unit is ready for testing.
4. Move within the sensor range for activation then move away. The lights should turn on and off within 15s. The LED should flash to indicate motion. Adjust the sensitivity (*SENS*) to set the desired detection range. Use the white sticker provided for area masking. Slowly rotate the *TIME* adjustment clockwise for the desired ON-time. Rotate the *PHOTO* adjustment for daylight mode light level setting if necessary. A 1/8 turn from full clockwise (sun side) sets the light level for a lobby to maintain average lighting levels. If the PIR unit is close to another light source connected, the daylight mode may activate when the light is on.

Trouble Shooting:

Load does not turn on:

1. If the relay clicks on and makes a sound, check load wiring and load.
2. Check if LED flashes. If it detects motion or flashes at close range, check power and wiring.
3. If LED flashes and the relay is off, check *PHOTO* adjustment. Re-adjust if necessary.
4. If the PIR unit operates normally and the load (light) is functioning, the relay or relay wiring may be damaged. The PIR unit may require servicing. Please contact Onstate Technologies.

Low sensitivity to movement:

1. Increase PIR sensitivity (*SENS*).
2. Check for objects blocking the detection area.
3. Motion detection is highest when the person is moving perpendicular from the sensor. Sensitivity is lower when the person is moving directly towards the sensor. Rotate PIR unit slightly to change detection angle.
4. A high ambient temperature decrease sensitivity. Reduce ambient temperature if possible.
5. The mounting height affects detection area. Increase height if necessary.

Load does not shut off:

1. Check wiring.
2. Check if the LED flashes. It may detect motion from objects or other heat sources.
3. Check On-Time. It may be set for long delay.
4. If the relay does not shut off after extended no motion detected, shut off power to the unit and power on again after 2 minutes.
5. If the PIR unit is operating normally and the load still does not turn off, the relay or electronics may be damaged. The PIR unit may require servicing. Please contact Onstate Technologies

No LED activity or operation:

1. Check wiring. The PIR unit is a 3-wire system.
2. Possible shorting of LOAD or high surge required on LOAD causing PIR unit internal trace to break. Unit will not work again without repairs. Contact Onstate.

Warranty:

Onstate Technologies warranty its products to be free of defects in materials and workmanship for a period of two (2) years. All products are sold as-is. Onstate technologies assumes no liabilities or obligations due to consequential damages caused by the product directly or indirectly with respect to loss of property, revenue, or cost of removal, installation or reinstallation. Modifications or improper use will void warranty.

Thank you for choosing Onstate Technologies