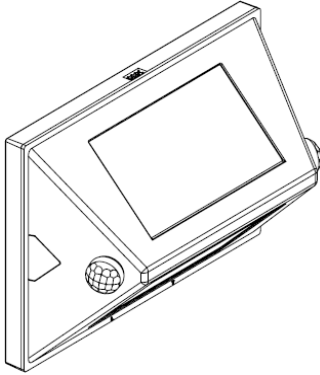


X4101100W3VN

hallway occupancy sensor

installation guide



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FCC Part 15 regulations for low-power, non-licensed transmitters and unintentional radiators intended for residential use (Class B).

Meets or exceeds requirements of energy standards:

California Title 24 (2008)

International Energy Conservation Code (2009)

ASHRAE Standards 90.1 and 90.2 (2007).

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product overview

The Verve Hallway Occupancy Sensor combines occupancy sensing technology with energy-harvesting radio frequency technology to automatically turn OFF or reduce lighting in a hallway when it is unoccupied and to automatically turn ON the lights when someone enters the hallway.

The hallway occupancy sensor is powered by built-in solar cells and uses passive infrared (PIR) motion detectors that sense changes in infrared radiation which occur when there is movement by a person (or object) which is different in temperature from the surroundings. Its primary application is where a sufficient amount of egress lighting is always present. The sensor can be used in either Auto-ON/Auto-OFF or Manual-ON/Auto-Off applications.

Manual ON/Auto OFF Application:

This application requires the lights to be turned on manually (i.e. Verve Switch). The sensor is mounted in a position that uses coverage area lighting to charge the sensor. The lights automatically turn OFF when motion is no longer detected for a designated amount of time.

Auto ON/Auto OFF Application:

When the sensor detects motion, a signal is sent to the controller which automatically turns ON the lights. The lights remain on as long as motion is detected in the area. After a set time period in which no motion is detected, the controller automatically turns the lights OFF. The sensor is mounted to take advantage of the egress lighting to constantly charge the sensor. If required, a compatible switch can be used to manually turn the lights ON or OFF.

cautions

The sensor is fragile and designed for indoor use only.

Do not touch, cover or paint the solar cell covers or sensor heads; it will affect the sensor performance.

Do not use solvents; product integrity will be compromised. Clean the PIR sensor head lenses, solar cell covers, and polycarbonate housing using a dampened soft cloth with light pressure.

tools required

A drill, a hammer and a #2 Phillips screwdriver.

parts included in the package

The sensor, the mounting plate with hardware and the instruction guide.

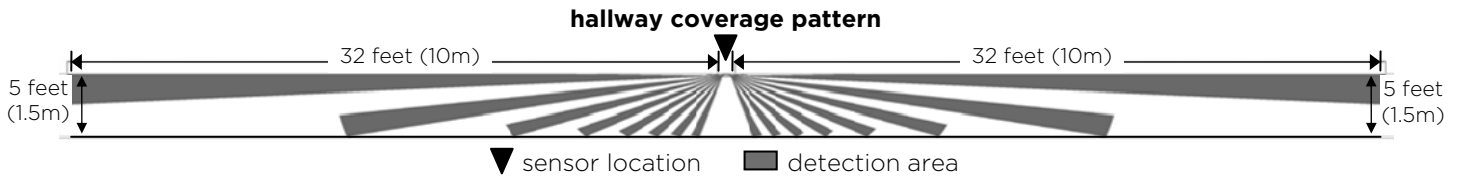
installation notes

Prior to operating the sensor, you must charge the solar cells for at least 2 minutes with at least 200 Lux of light.

Never install the occupancy sensor in a metal enclosure or in the immediate vicinity of large metal objects.

Never install the occupancy sensor near a heat source.

Maintain a distance of at least 2 feet from devices that emit high-frequency signals, such as audio and video systems, computers or electronic ballast in light fixtures.



planning the sensor placement

Placement of the sensor is the most important part of planning the installation. The recommended height is about 7 feet above the floor. For multiple sensor applications, sensors can be placed approximately 60 ft. from each other based on the maximum range of 30 ft. for each sensor head. The sensor's sensitivity decreases as the distance from the sensor head increases.

The sensor must not be in a position that will receive direct sunlight, but it must be located within two feet of sufficient coverage area lighting or egress lighting, which must always remain on (a minimum of 200 Lux).

The motion detector responds to temperature differences created by human or object movement (i.e. HVAC register air movement), so it must be installed with a direct line-of-sight through the length of the hallway. The sensor must not be installed near any heat source which would cause the sensor to exceed the operating temperature.

mounting the sensor

Mount the hallway occupancy sensor as follows:

1. Use included anchors and screws to attach the mounting plate to the wall. The mounting plate is designed to be leveled as it is installed (refer to Figure 1, the mounting plate is labeled TOP).

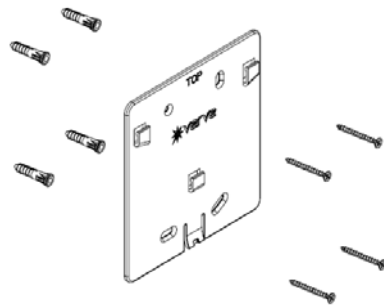


Figure 1

2. Hold the mounting plate in the desired location on the wall and mark the screw holes.
3. Drill the holes and insert the anchors. Take care to avoid electrical wires.
4. Insert the first screw in the round hole, leaving the screw slightly loose.
5. Insert the remaining screws into the oblong holes, leaving the screws slightly loose.
6. Level the mounting plate and tighten the screws.
7. After the mounting plate is installed, attach the sensor housing (refer to Figure 2).
8. Place the sensor housing against the mounting plate with the holes in the top back of the housing over the tabs on the mounting plate. Slide the case down until it snaps into place.

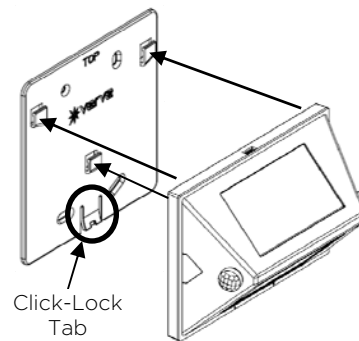


Figure 2

removing the sensor

1. Use a small screwdriver to depress the click-lock tab on the mounting plate (circled in Figure 2).
2. Slide the case up out of the tabs and away from the mounting plate.

testing the sensor

To self-test the sensor (refer to Figure 3):

1. Press and hold the Test Button while moving your hand over the sensor head.
2. Test Indicator LED will flash if sensor is working.
3. If the LED does not flash, recharge the solar cells and repeat steps 1 and 2.
4. Repeat with the other sensor head.

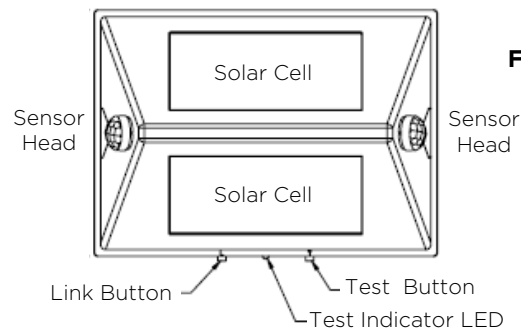


Figure 3

linking the sensor

Operating settings, such as time delays, are set in the controller(s) to which the sensor is linked. To link the sensor to the controller(s), follow the controller instruction guide(s) "Linking the occupancy sensor".

specifications

Transmit Frequency: 315 MHz
 Energy Generator: Maintenance Free Solar Cells
 Initial Charging Time: Approx. 2 minutes (200 Lux)
 Operating Temperature: 32 to 104° F (0 to 40° C)
 Relative Humidity: 0% to 95%, non-condensing
 Usage: Indoors Only
 Type of Protection: IP50 according to EN60529
 Enclosure Material: White, Polycarbonate
 Dimensions: 6.7" wide, 4.8" high, 2.7" deep