

Overview

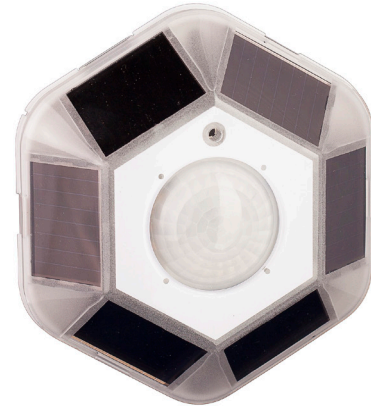
The PIR Ceiling Mount Sensor (MOS-IR) is designed to provide a reliable and simple method to increase energy savings by adding occupancy detection to your wireless control system.

The MOS-IR is a 360 degree ceiling sensor providing reliable battery-free occupancy detection that communicates wirelessly with Echoflex lighting controllers. The MOS-IR fits well in applications where energy codes require lights to be manually turned ON and automatically shut OFF when vacant. An efficient power supply and tuned sensor circuitry allows the MOS-IR to provide immediate response to new occupancy states, making it an ideal solution for auto-ON applications as well.

The sensor has a selection of three lens: the A and B models are intended for office applications with lens optimized for ceiling heights of 8 to 9 feet. The C lens is intended for high bay applications, approximately 40 feet.

The advanced power management and efficient solar energy harvesting features make the optional battery redundant in normal work place environments. The high bay model comes equipped with a battery to insure consistent operation in inaccessible locations and low light conditions.

The MOS-IR incorporates test features that provide installers the ability to ensure reliable communications, sufficient energy harvesting and occupant detection without extra tools or software. PIR sensitivity adjustments can be made to eliminate false tripping insuring reproducible operation.



Features

- Solar powered wireless PIR motion occupancy/ vacancy sensor
- Ceiling mount with 360° angle of detection
- Part of a seamless energy control solution when used with Echoflex lighting controllers
- Immediate response to motion even in a dark room
- Vacancy Sensing mode available (Manual On / Auto-Off)
- Integrated Range Confirmation® via tri-colored LED indication
- Integrated Solar Harvesting Light Level LED indication
- Sensitivity adjustment (high, medium or low) to avoid nuisance triggering
- Walk-Test feature allows installers to test operation and installation location during commissioning
- Sends occupied and unoccupied status
- Operates in light conditions as low as 20 lux (2 fc)
- Up to 9 days operation in complete darkness with full charge and battery free
- Reliable radio reception range of 24 m (80 ft) - commercial office spaces (typical), up to 100m (330 ft) line of sight

Ordering Information

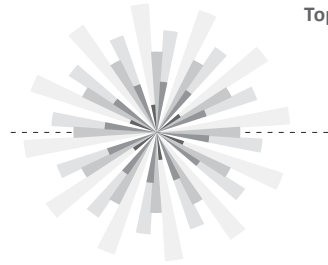
Description	902 MHz Models	902 MHz PN	868 MHz Models	868 MHz PN
PIR Ceiling Mount Sensor, 1000 ft. ² coverage	MOS-IR-UA	8188A1180-X-1	MOS-IR-YA	8188A1425-X-1
PIR Ceiling Mount Sensor, 1900 ft. ² coverage	MOS-IR-UB	8188A1181-X-1	MOS-IR-YB	8188A1426-X-1
PIR High Bay Motion Sensor, 6300 ft. ² coverage	MOS-IR-UC	8188A1187-X-1	MOS-IR-YC	8188A1427-X-1



MOS-IR

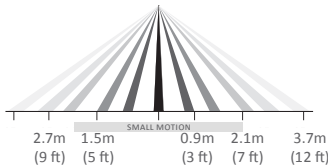
Lens Ray Diagrams

A LENS



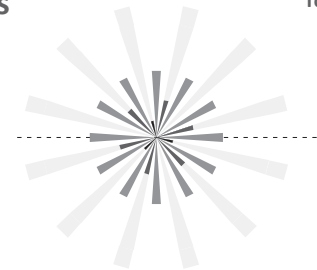
Top View

Typical ceiling height 8 ft(2.4 m)



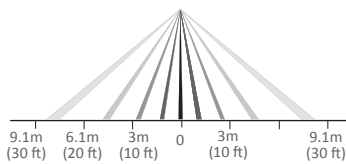
Side View

B LENS



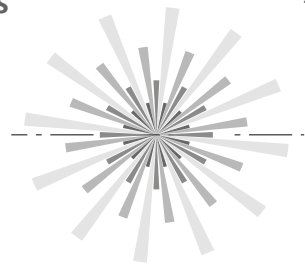
Top View

Typical ceiling height 9 ft (2.7 m)

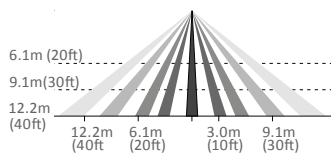


Side View

C LENS



Top View



Side View

Equipment Profile

EEP A5-07-01:	Occupancy Sensor - PIR ON, PIR OFF Supply Voltage 0...5.1V, linear n=0...255
----------------------	---

Hardware Specifications

Power Supply	Integrated solar cell
Operational Light Level	20 lux (2 fc) minimum
Minimum charge time to begin operation	3 minutes @ 200 lux (20 fc)
Maintain charge time	2 hours every 24 hours @ 160 lux (16 fc)
Maximum charge time	6 hours @ 320 lux (32 fc)
Operating life at full charge	9 days in 0 lux
Battery - start assist	CR2032 coin cell MOS-IR*A, MOS-IR*B optional - not included MOS-IR*C required - included
Input	Teach button for assignment to receiver
Output	Test mode LEDs - red, green and amber

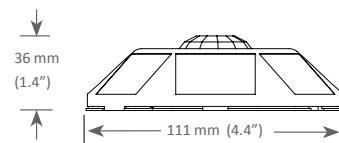
Communications

Radio Frequency	902 MHz(U) or 868 MHz(Y)
Antenna	Integrated whip
Transmission Range	24 m (80 ft) - commercial office spaces (typical), up to 100m (330 ft) line of sight
Telegram Transmission	On motion or on heartbeat period
Telegram Heartbeat Period	Minimum 100 seconds

Mechanical Specifications

Operating Temperature	-10°C to 45°C (14°F to 113°F)
Storage Temperature	-25°C to 65°C (-13°F to 149°F)
Relative Humidity	5% to 92% RH (non-condensing)
Weight	104 g (3.7 oz)
Dimensions	111 mm flat edges x 36 mm height (4.4" x 1.4")
Mounting	Screws or double sided tape (not supplied)

Dimensioned Diagram



Agency Listings and Compliance

CEC Title 24 Compliant
902 MHz models
 FCC Part 15.231 Remote Control Transmitter
 IC RSS-210
868 MHz models
 CE Marking



Range Confirmation is an Echoflex Solutions Inc. Patented technology

Specifications are subject to change without notification | Document 8DC-0808 | Revision 1.2



Echoflex Solutions, Inc.

#1, 38924 Queens Way | Squamish | BC | Canada | V8B 0K8
 Toll Free: 888-324-6359 | Phone: (778) 733-0111 | Fax: (604) 815-0078
 email: info@echoflexsolutions.com | www.echoflexsolutions.com

