

Avi-on Microwave Sensor



Easy installation with the Avi-on bi-level dimming microwave occupancy sensor

Built for energy savings & code compliance, Avi-on microwave sensors meet stringent building codes such as CA Title 24, ANSHERE, etc. Lighting energy savings of 50% or more can be achieved through intelligent use of sensors (actual savings may be higher or lower depending on total system efficiency and application) as well as bi-level switching, manual overload, and daylight sensing.

Sensor Operation

Avi-on Microwave Sensors are sensitive to movement and are ideal for large spaces and areas that have an awkward shape or where fine motion detection is required. They have a much greater coverage and higher sensitivity and can detect movement through glass.

Our microwave sensors are a good choice in harsh environments where light or heat cycles are irregular and they have wide variety of applications for most any lighting need.

Sensor Features

The Avi-on Microwave Sensor actively emits microwaves at 10.525 GHz frequency and uses the Doppler shift of the return waves to detect motion.

The Avi-on Microwave Sensor is a Class 2 Device designed to satisfy new CA Title 24 requirements for bi-level dimming of lighting fixtures. Using a 0-10V signal, the sensor is capable of dimming lighting loads down to 0%*, 10%, 25%, or 50%.

The sensor is suitable for a variety of indoor and outdoor applications. It supports fixture and ceiling mounts from 8-12ft high. Both sensor and power pack are rated for use in temperatures ranging from -30° to 70°C and relative humidity from 90 to 95% at 30°C.

0-10V: 100mA to drive up to 50 LED sink drivers on 0-10V output.

High Vin-2.5V 100mA source

Low 100mA sink current

Sensor Features (cont.)

Bi-Level Dimming

0-10V bi-level dimmer connects to 0-10V control on the LED driver. When motion is detected the sensor will bring lighting up to 100% lumen output. When no motion is detected for the length of TD1, the sensor will send a signal to dim lighting to a specific level set by the end-user. If no motion is detected for the length of TD2, the sensor will send a signal to shut off the light.

Common Specifications

- Microwave sensor 10.525 GHz
- 0-10V Bi-level Dimming. Manual options: 0% (OFF)*, 10%, 25% or 50% dimming
- Time delay 1 adjustable 5 sec to 30 min
- Time delay 2 adjustable 10 sec to ∞
- Active High/Low outputs for Relay drive
- 92ft x 36ft coverage pattern (at 30ft mounting height)
- Bluetooth add-on enables remote sensor programming (~50ft), granular customization of dimming levels, time delays, high-end trimming
- Bluetooth add-on also enables smart phone fixture control, with sensor override for instant 0-10V dimming and on/off control*
- Compact form factor

Parts and Ordering

Controllers

Name	Description	Part Number
Avi-on Microwave Sensor	Bi-Level Microwave Occupancy Sensor	15-2100

To order please contact Avi-on sales at **(844) 704-8383** or prosales@avi-on.com for information on becoming an Avi-on partner and order details.

Case Dimensions (Excluding Wires)

Part	Length (mm)	Width (mm)	Height (mm)
Avi-on Microwave Sensor	61	61	49

Certifications

Regulatory	Description
USA	FCC: ZZ0 WCM-01
UL	E341446

Product Diagrams

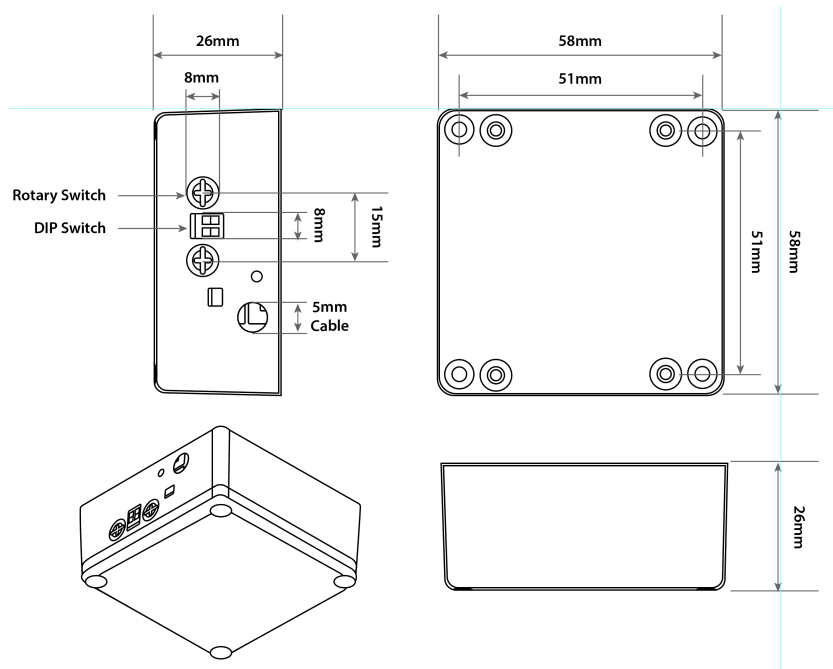


Figure 1. Avi-on Microwave Sensor Dimensions

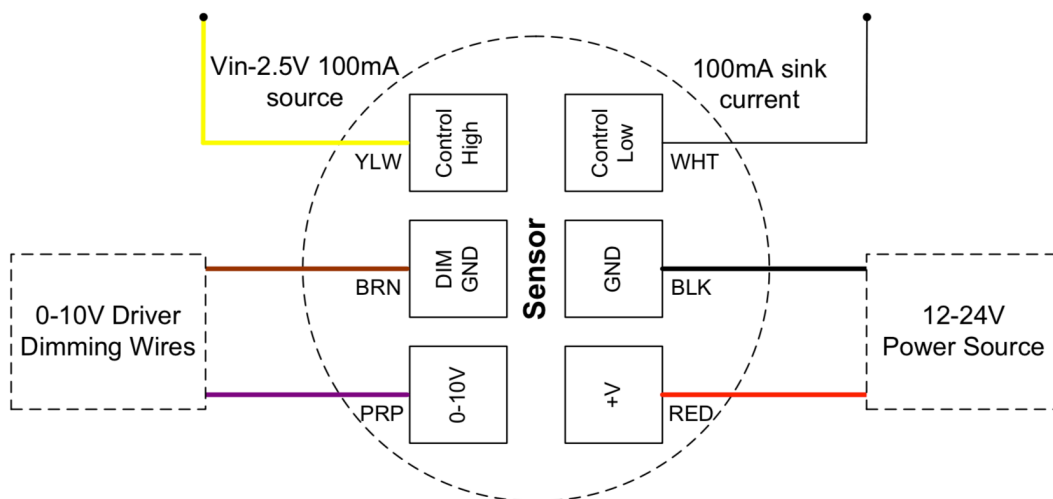


Figure 2. Sensor Block Diagram

Product Diagrams

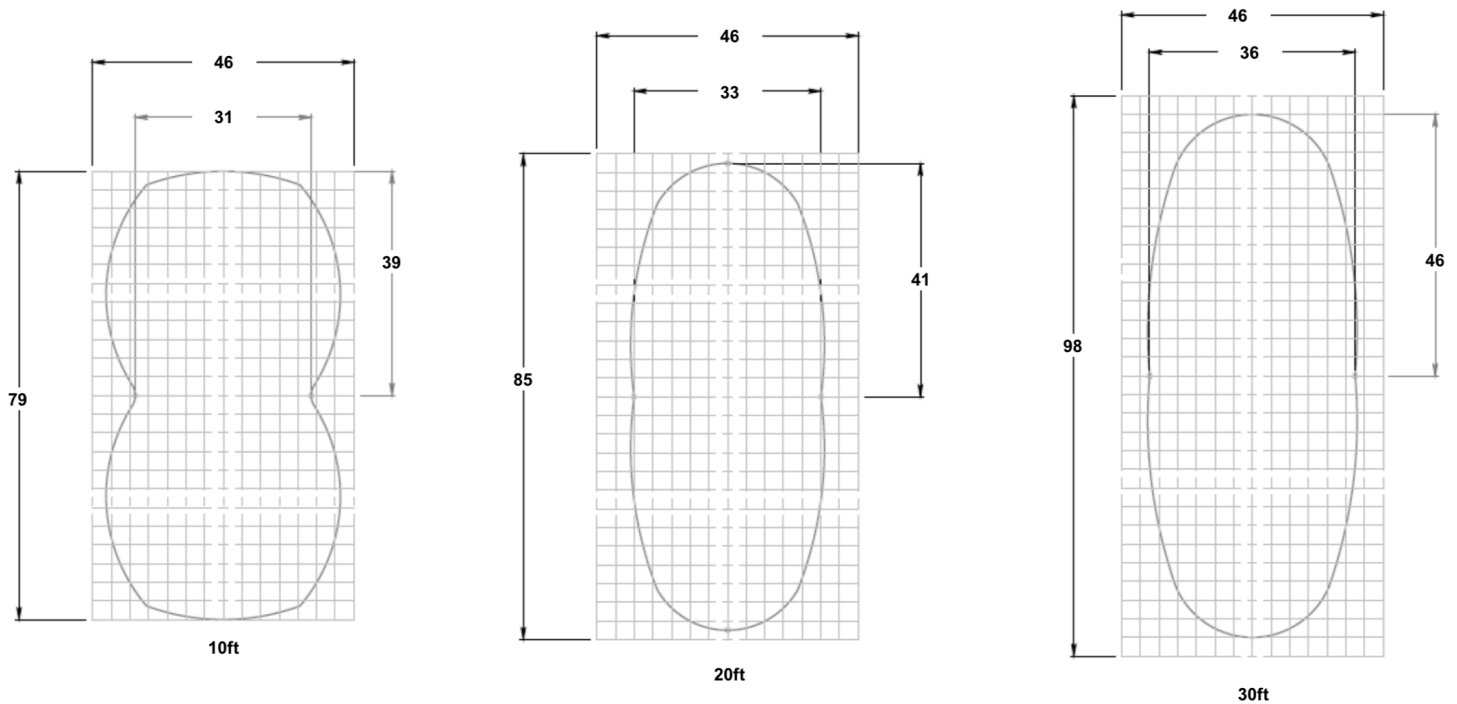


Figure 3. Detection Area for 10', 20', 30' Mounting Heights

Note: Mount sensor with wires to the right of the trimpots/dipswitch for best performance. Length of detection pattern (i.e. 79, 85, 98ft) is in line with the sensor face that has the trimpots/dipswitch.



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