Part # 15-3100

Avi-on Ultrasonic Sensor

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

Built for energy savings & code compliance, the Avi-on Ultrasonic Sensor includes automatic "OFF" functionality to help 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

In commercial applications, Avi-on Ultrasonic Sensors are characterized by their reliability and outstanding versatility. They are extremely precise, because their detection method works reliably under almost all conditions due to their highly reliable sound wave technology. These sensors work well for applications that require precise sensitivity.

Sensor Features

The Avi-on Ultrasonic Sensor is an ultrasonic sensor. It actively emits high frequency sound waves (40kHz) and uses the Doppler Effect to detect motion.

The Avi-on Ultrasonic 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 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

Network Lighting Controls
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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

- Ultrasonic sensor 40KHz ± 1kHz.
- 0-10V configurable output: set to 0% OFF)*, 10%, 25% or 50% dimming
- Photocell for ambient light detection
- Time delay 1 adjustable 5 sec to 30 min
- Time delay 2 adjustable 10 sec to ∞
- LED Motion indicator
- Active High/Low outputs for Relay drive
- Max range 23ft x 26ft (ceiling mount 8-12ft high)
- Bluetooth add-on enables remote sensor programming (up to 40ft) with greater customization of dimming levels, time delays, and ambient light sensitivity

Parts and Ordering

Controllers

Name	Description	Part Number
Avi-on Ultrasonic Sensor	Bi-level Ultrasonic Occupancy Sensor	**15-3100**

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 Ultrasonic Sensor	61	61	49

Certifications

Type	ID
USA	FCC: ZZ0 WCM-01
UL	E341446

Network Lighting Controls
Qualified Products List

Product Diagrams

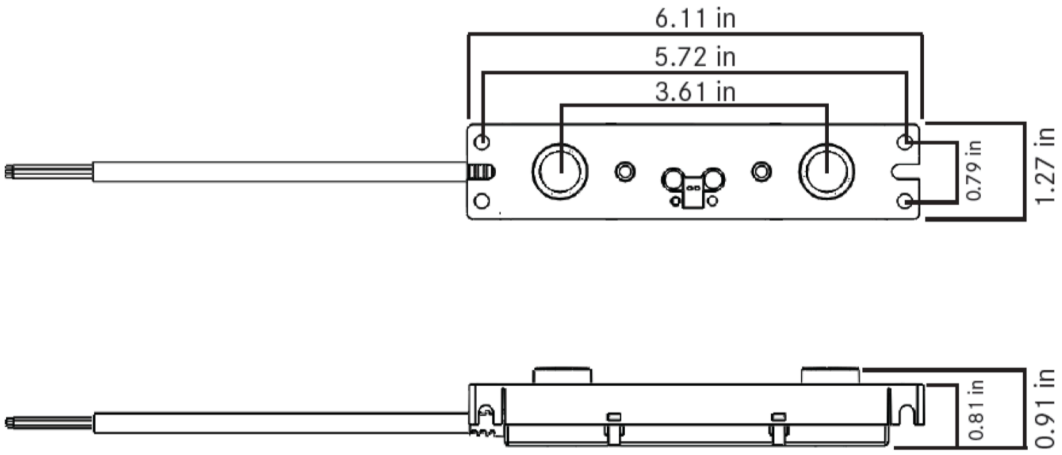

Figure 1. Avi-on Ultrasonic Sensor Dimensions

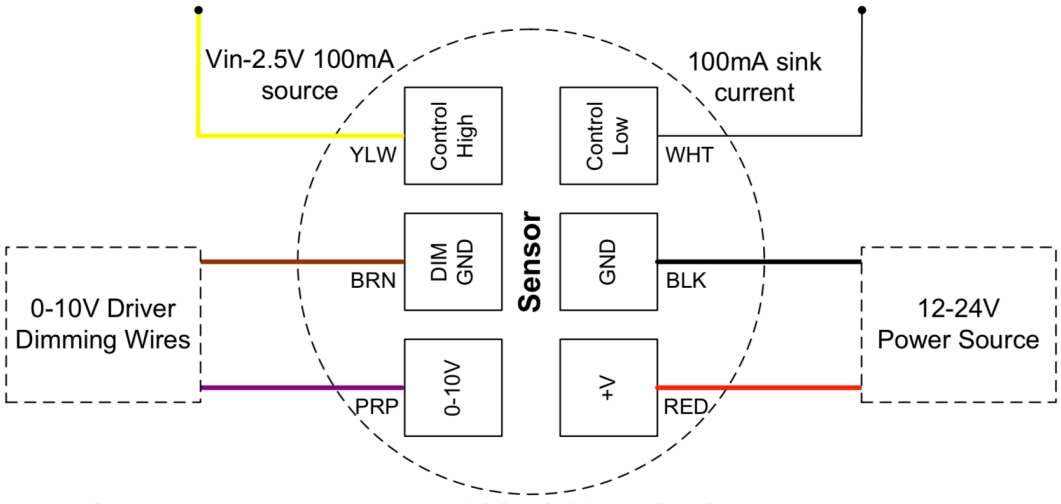

Figure 2. Sensor Block Diagram

Note: Connect either Control High or Control Low, depending on power pack relay circuitry.

Product Diagrams

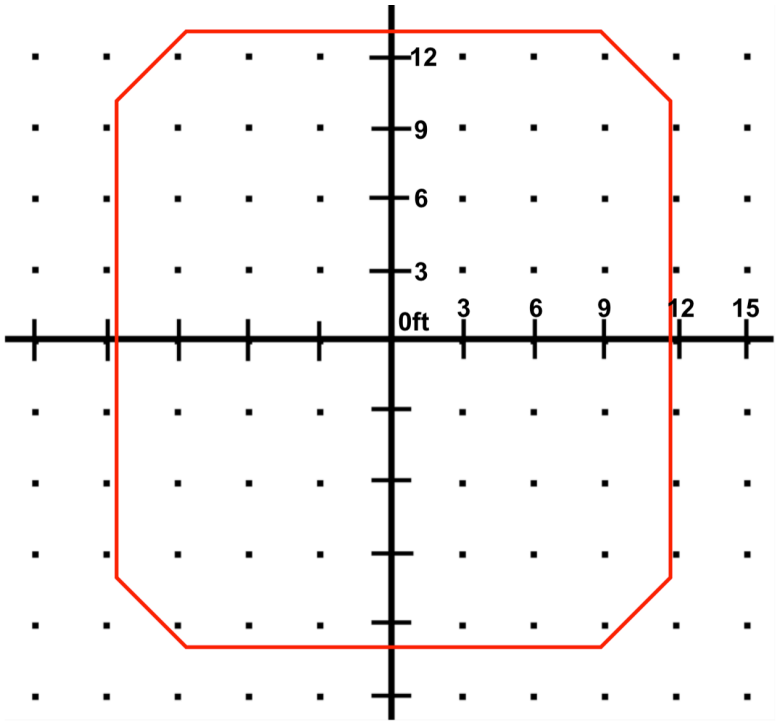

Figure 3. Detection Area

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