

# Avi-on Dual-Tech Sensor

## Non Bluetooth Dual-tech ceiling mount sensor from Avi-on



## PRODUCT OVERVIEW

Avi-on dual technology sensors, which utilize both PIR and ultrasonic detection methods, can offer enhanced performance in areas where a PIR sensor alone is insufficient. For instance, in spaces with partitions that obstruct the line of sight to certain occupants, a PIR sensor alone may inadvertently turn off the lights when the room is still occupied. This sensor is analog and is intended to be used in conjunction with the analog sensor input of the AVI-XFAC-16A-1CH-CL1 Power Packs or AVI-SIM-12-24VDC-EA.

The Avi-on Dual-tech Ceiling Mount Sensor are powered by and send their signal to the XFAC (AVI-XFAC-16A-1CH-CL1) or Avi-on Sensor Input Module (AVI-SIM-12-24VDC-EA) with power supply (AVI-PSR20-277-24-150). Sensor is factory preset to allow for quick installation right out of the box in most applications. Lighting configuration should be done through Avi-on App. Manual adjustments can be made physically on the sensor face.

### PIR Sensitivity

50%: sensor range is set to approximately half the widest range. Sensitivity to minor motion is increased within a smaller detection area.

100%: sensor range is set to maximum. Sensitivity to minor motion is decreased.

### Power and Connection

The AVI-SEN-DUCM-24 can be powered by the 24VDC Aux port of the AVI-XPP-16A. Up to three (3)

sensors may be powered from one XFAC. When used with the AVI-SIM-12-24VDC-EA, a separate 24DC power supply must be used such as the AVI-PSR20-277-24-150.

### Trigger Mode:

The sensor has 6 different trigger options that can be applied by adjusting dip switches 2, 3, and 4.

**Both:** requires motion detection by the PIR and Ultrasonic sensor to trigger an event.

## ORDERING INFORMATION

Part Number	Name	Description
AVI-SEN-DUCM-24	Dual-tech Ceiling Mount Sensor	Dual-tech Non-Bluetooth Ceiling Mount Sensor

To order please contact Avi-on sales at **(877) AVION-US**, (877) 284-6687 or [prosales@avi-on.com](mailto:prosales@avi-on.com) for information on becoming an Avi-on partner and order details.

Project		Location/ Type	
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## PRODUCT OVERVIEW (cont.)

**Either:** requires motion detection by only one sensor (PIR or Ultrasonic) to trigger an event.

**PIR:** requires motion detection by the PIR sensor to trigger an event. Output signal from the Ultrasonic sensor is ignored.

**Ultrasonic:** requires motion detection by the ultrasonic sensor to trigger an event. Output signal from the PIR sensor is ignored.

*It is recommended this setting is set to **Both**.*

### Time Delay Adjustment

This is set by the factory to the appropriate default. Time delay adjustments and other sensor behaviors are set using the Avi-on platform on the XPP the sensor is connected to.

### Ultrasonic Sensitivity Adjustment

Use a small slotted screwdriver to turn the trimpot. Min (-) setting is best for smaller areas and near doorways or heat sources to avoid false triggering. Max (+) setting is best for larger open areas. It is not recommended that this setting be changed from its default.

### On/Off

There is a 40-second warm-up period when power is first applied to the sensor.

Before making adjustments, make sure office furniture is installed, lighting circuits are turned on, and HVAC systems are turned on. VAV (variable air volume) systems should be set to their highest airflow.

## SPECIFICATIONS

Name	Avi-on Dual-tech Ceiling Mount
Sensor Type	Dual tech (PIR / Ultrasonic) ceiling mount
Input Voltage	24VDC
Power Consumption	15.5mA
AC to DC Power Supply	AVI-PSR20-277-24-150 class 2 power pack
PIR Sensor Range	44ft / 1600 ft <sup>2</sup> / 360° coverage
Ultrasonic Sensor Range	30ft x 30ft / 900 ft <sup>2</sup> / 360° coverage
Time Delay	5 sec to 30 min

Part Number	AVI-SEN-DUCM-24
Photocell Sensitivity	10-150 fc (107-1615 lux)
Operating Temperature	-0° to 55°C
Storage Temperature	-10° to 60°C
Relative Humidity	95% non-condensing
Mounting	Ceiling mount
Color	White
Warranty	5 years
Certifications	UL/cUL listed power pack

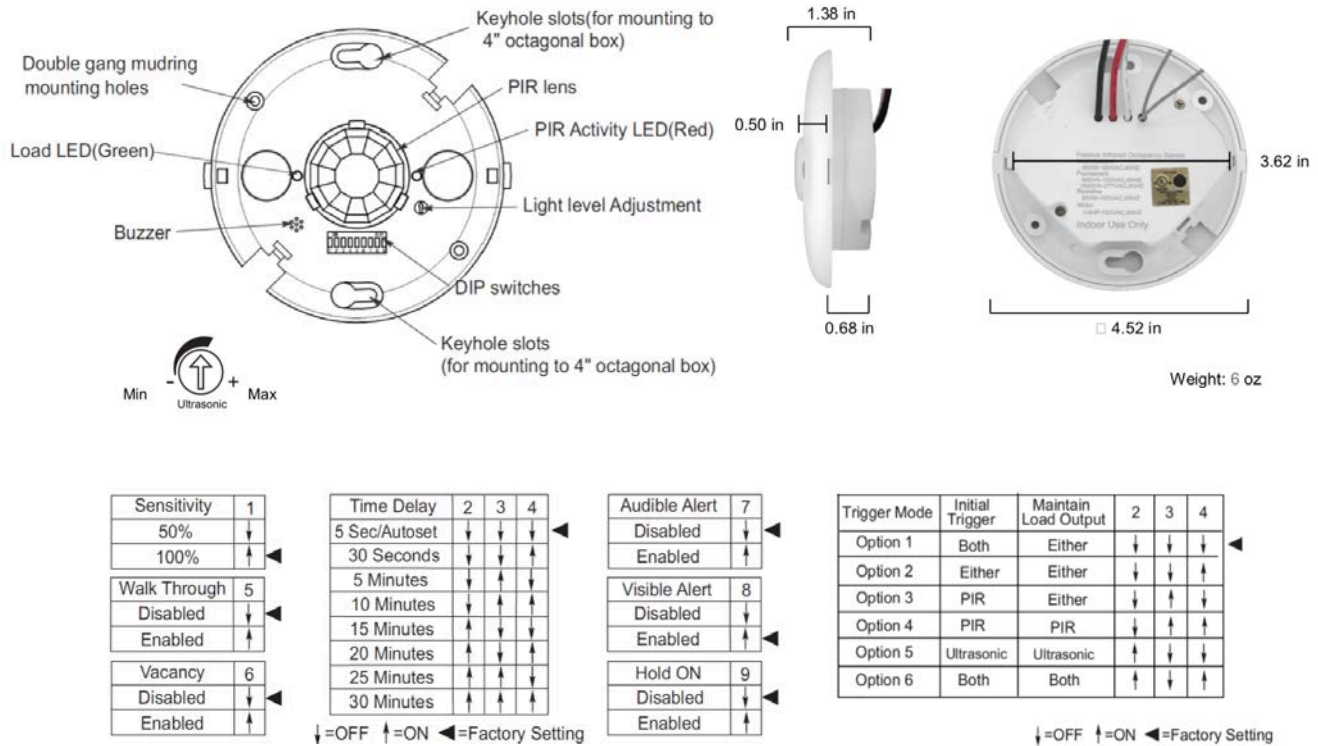
### Case Dimensions (Excluding Wires)

Name	Width (inches)	Width (inches)	Height (inches)
Dual-tech Ceiling Mount Sensor	4.52	4.52	1.38

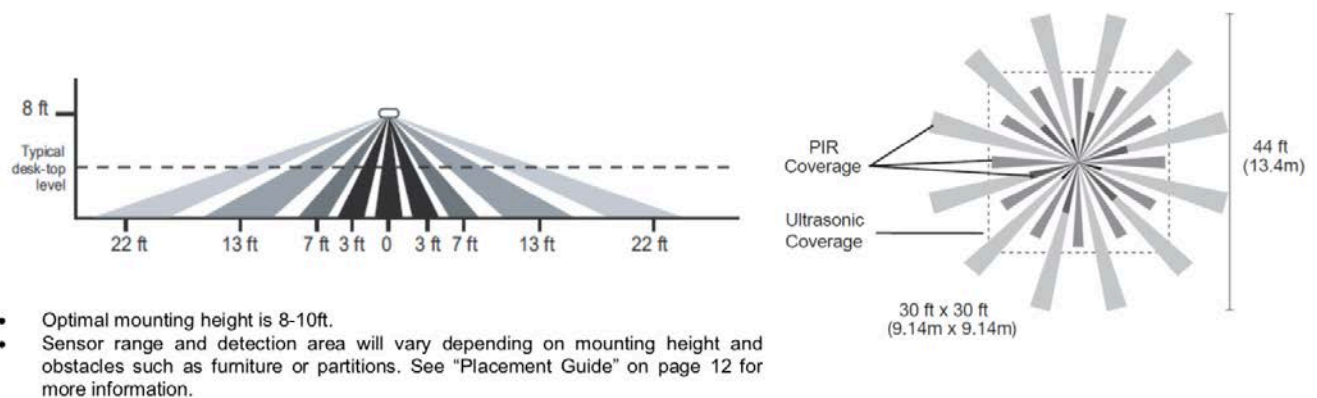
### Certifications

Type	ID
UL	E350121
cUL	E350121

## DIAGRAMS



**Figure 1. Sensor Controls and Dimensions**



**Figure 2. Ceiling Mount Coverage Area**

## DIAGRAMS (cont.)

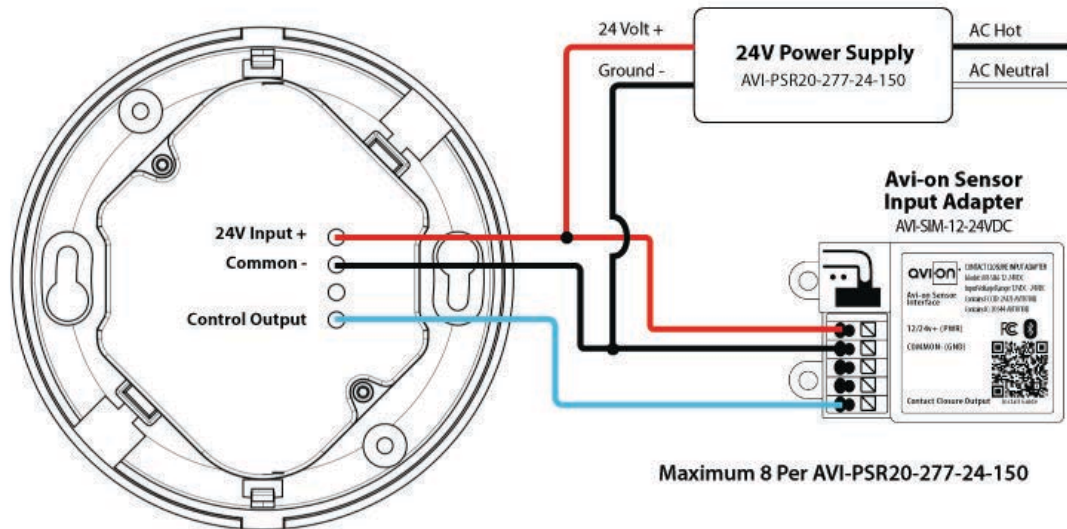


Figure 3. Wiring Diagram

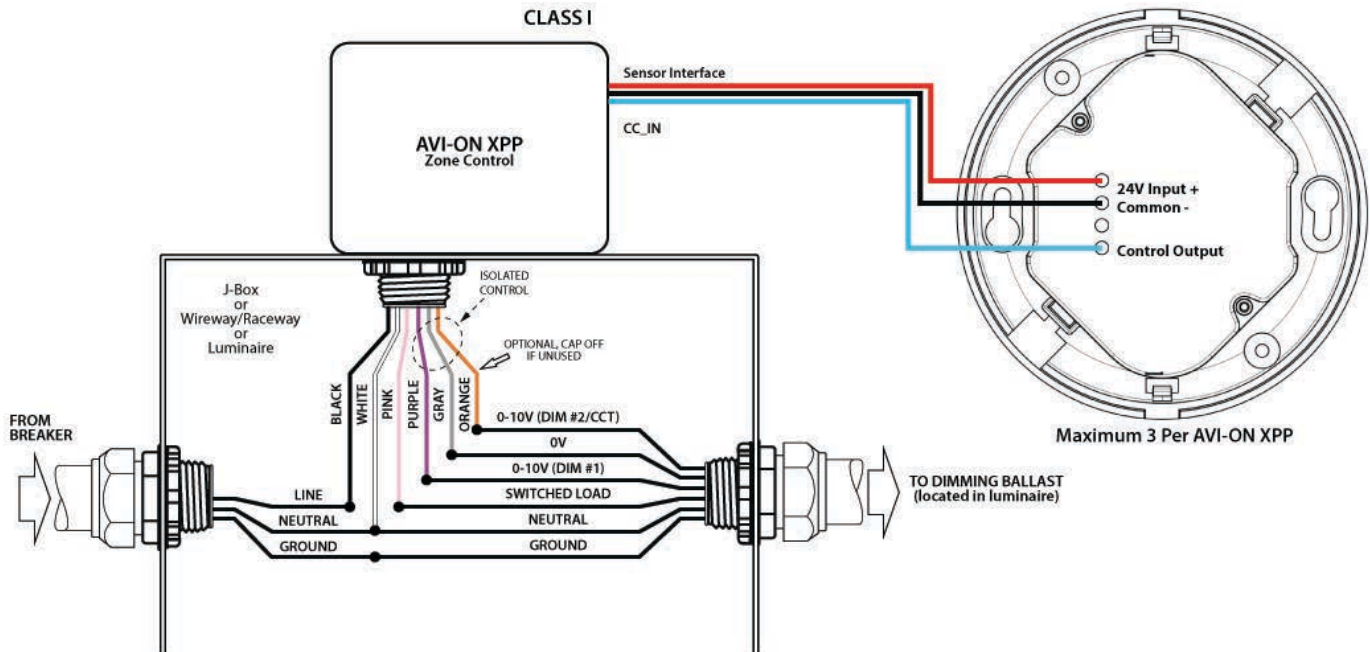


Figure 4. Wiring Diagram

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