

Avi-on Dual-Tech Sensors



Dual-tech ceiling mount sensors from Avi-on

Avi-on dual technology sensors, which use both PIR and ultrasonic detection methods, can provide improved performance in areas where a PIR sensor alone will not suffice. For example, areas with partitions that obscure line of sight to some occupants, may turn lights off when the room is occupied. Ultrasonic waves can see around such obstacles.

The Avi-on Dual-tech Ceiling Mount Sensor easily integrates with the External Power Pack (AVI-XPP-16A) or Avi-on Sensor Input Module (AVI-SIM-24) with power supply (AVI-PSR20). 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.

Features

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.

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.

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

The sensor will hold lights on as long as occupancy is detected. The time delay countdown starts when no motion is detected. After no motion is detected for the length of the configured control time the sensor will turn the lights off. The length of the time delay can be a fixed time set by the user. The sensor's time delay should be set to 5 seconds using dip switches 5, 6 and 7. Avi-on's control time is configurable within the Avi-on App.

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.

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.

Project		Location/ Type	
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Parts and Ordering

Controllers

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

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

Specifications

Name	Avi-on Dual-tech Ceiling Mount
Sensor Type	Dual tech (PIR / Ultrasonic) ceiling mount
Input Voltage	24VDC
Power Consumption	16.5mA
AC to DC Power Supply	AVI-PSR20-277-24-150 class 2 power pack
PIR Sensor Range	44ft / 1600 ft2 / 360° coverage
Ultrasonic Sensor Range	30ft x 30ft / 900 ft2 / 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	Length (inches)	Width (inches)	Height (inches)
Dual-tech Ceiling Mount Sensor	1.38	4.52	4.52

Certifications

Type	ID
UL	E350121
cUL	E350121

Product Diagrams

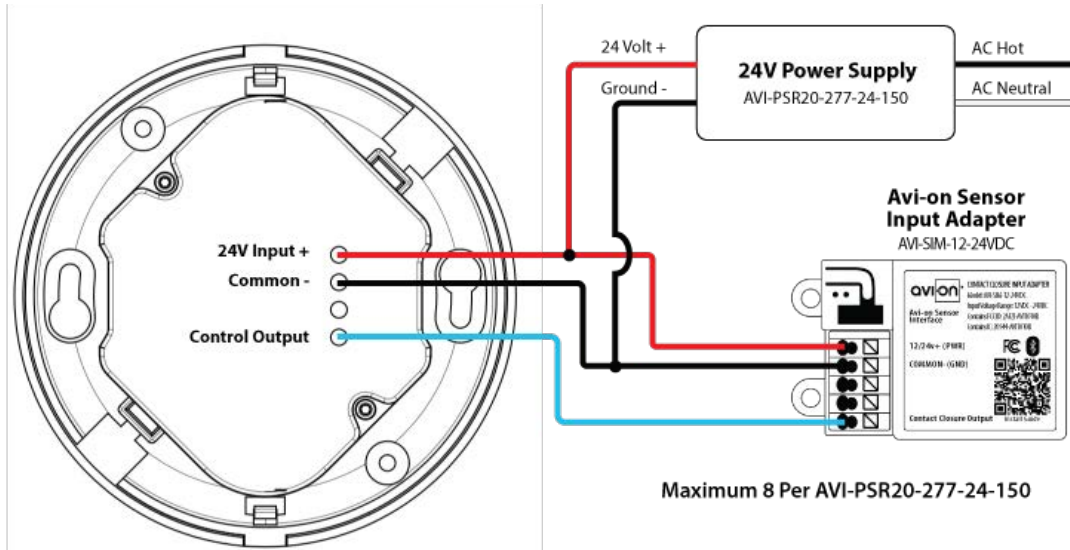


Figure 3. Wiring Diagram

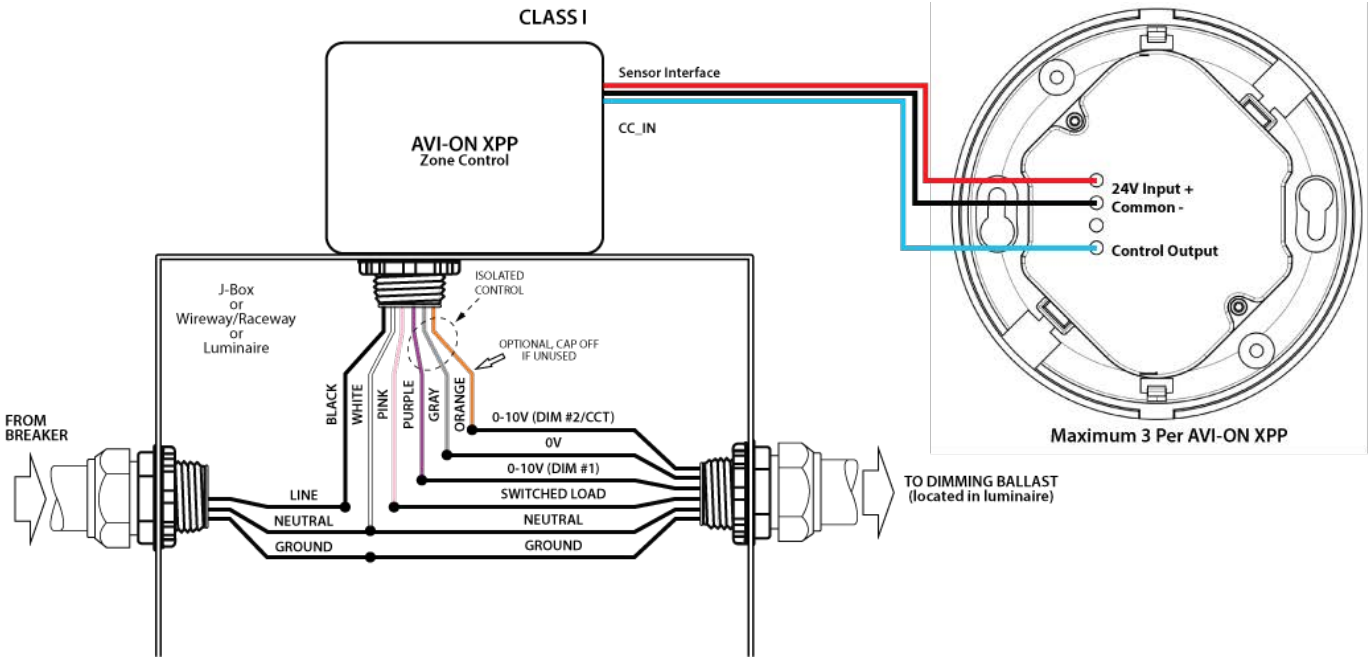


Figure 4. Wiring Diagram

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