Avi-on Wall Station Sensor

Wall Station with dual- technology occupancy/vacancy sensor

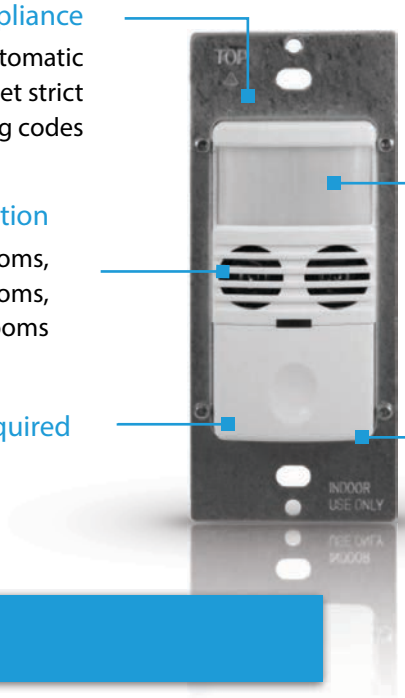
Energy Savings & Code Compliance

The Wall Station Sensor features automatic "OFF" functionality that helps meet strict building codes

Ultrasonic Detection

Typical applications include public restrooms, private offices, classrooms, conference rooms, storage spaces, and break rooms

No Additional Wiring Required



PIR Detection

Typical applications include classrooms, copy rooms, offices, conference rooms, and private restrooms

Standard Wall-Box Mount

Mount using single-gang space

PRODUCT OVERVIEW

Built for energy savings & code compliance, the Avi-on Wall Station Sensor includes automatic "OFF" functionality to help meet stringent building codes such as CA Title 24, ASHRAE, etc.

The Avi-on Wall Station Sensor provides automatic lighting control for a variety of indoor applications. It can replace any standard single-pole wall switch.

PIR detection is best suited for areas with (1) clear line of sight, and (2) good air circulation. Typical applications include classrooms, copy rooms, offices, conference rooms, and private restrooms.

Ultrasonic detection supplements PIR sensors in areas with (1) low air flow, (2) partitions and dividers or other irregular geometry, and (3) high levels of minor activity. Typical applications include public restrooms, private offices, classrooms, conference rooms, storage spaces, and break rooms.

OCC: occupancy sensing mode. Sensor will turn lights on automatically when motion is detected and turn lights off automatically after the area is vacated.

VAC: vacancy sensing mode. Sensor will automatically turn lights off after the area is vacated, but requires the user to manually turn lights on.

OFF: manual off. Load will stay off until manually switched on.

ON: manual on. Load will stay on until manually switched off.

AUTO: auto set occupancy sensing mode. Same as OCC except the sensor automatically adjusts the time delay based on occupancy patterns.

OCCS: occupancy single relay. Primary load is in OCC mode. Secondary load is in VAC mode.

OCCD: occupancy dual relay. Both loads are in OCC mode.

VACD: vacancy dual relay. Both loads are in VAC mode.

Manual on/off: End users can override any of the sensor modes at any time by operating the manual on/off controls.

Walk-through Mode: This feature is available only when the sensor is set to AUTO*. After motion is initially detected, the sensor will turn lights on. If no motion is detected beyond 30 seconds (such as when a person walks through an area) it will turn lights off automatically after another 2.5 minutes (3 minutes total) have elapsed. If motion is detected for longer than 3 minutes then AUTO mode will apply.

Project		Location/ Type	

ORDERING INFORMATION

Part Number	Name	Description
AVI-SEN-DUWS	Avi-on Sensor Wall Station	Dual-tech Ultrasonic Wall Station sensor

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 Sensor Wall Station
Sensor Type	PIR/Ultrasonic, occupancy/vacancy
Input Voltage	120/277VAC, 50/60Hz
Max Load (Resistive)	800W
Max Load (Fluorescent)	800VA @ 120VAC / 1600VA @ 277VAC
Min Load	None
Max Load (Motor)	1/4 Hp motor
PIR Sensor Range	40 ft / 1200 ft2
Ultrasonic Sensor Range:	20 ft / 400 ft2
Time Delay	15 sec to 30 min

Part Number	AVI-SEN-DUWS
Photocell Sensitivity	30 Lux to daylight
Operating Temperature	0° to 55°C
Storage Temperature	-10° to 60°C
Relative Humidity	95% non-condensing
Mounting	Standard wall box
Color	White
Warranty	5 years
Certifications	UL/cUL listed E350121

Case Dimensions (Excluding Wires)

Name	Length (mm)	Width (mm)	Height (mm)
Avi-on Sensor Wall Station	61	61	49

Certifications

Type	ID
UL	E350121
cUL	E350121

DIAGRAMS

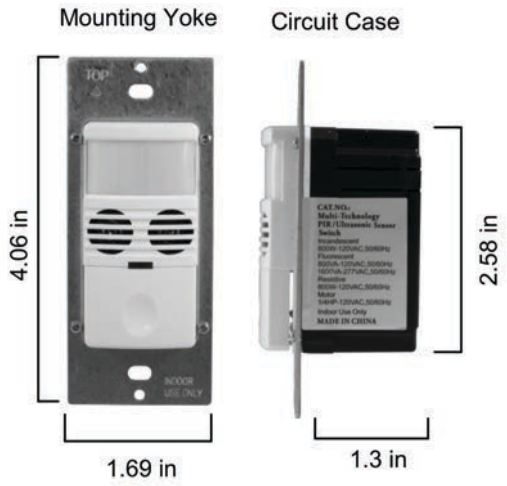


Figure 1. Dimensions

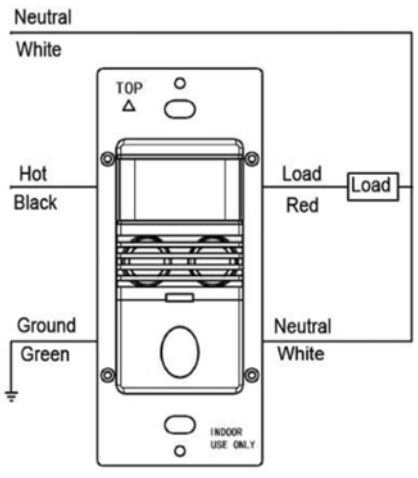


Figure 2. Wiring Diagram

DIAGRAMS (Cont.)

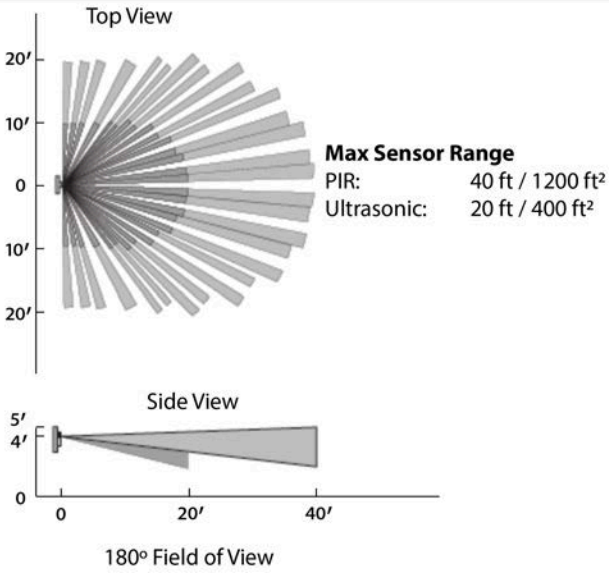


Figure 3. Detection Area

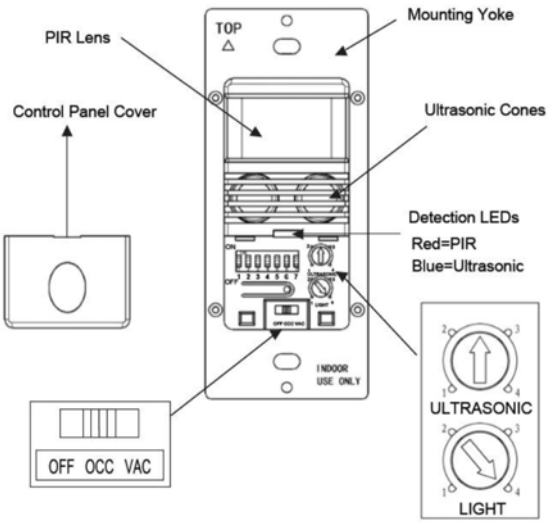
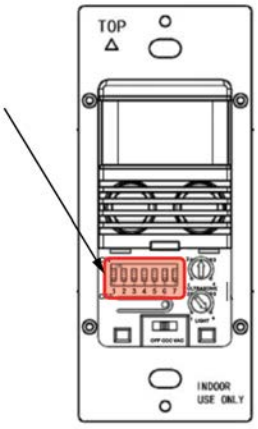


Figure 4. Setting Adjustments

DIP SWITCH SETTINGS



The Sensor Wall Station has **7 DIP Switches** under the cover. They are used to set sensitivity, time delay, trigger mode, and walk-through mode feature settings.

PIR Sensitivity	1
50%	↓
100%	↑

Switch 1: PIR Sensitivity Setting
50%, sensor's coverage is smaller, just about half of the widest range. 100%, the maximum range of sensor's PIR coverage is 1200 sq. ft.

Switches 2, 3: Trigger Mode
The sensor has 4 trigger options, set with DIP switches 2 & 3.

Trigger Mode	Initial Trigger	Initial Trigger	Re-Trigger	2	3
Option 1	Both	Either	Either	↓	↓
Option 2	PIR	PIR	PIR	↓	↑
Option 3	US	US		↑	↓
Option 4	Both	Both	Both	↑	↑

- **Both** requires motion detection by the PIR & Ultrasonic
- **Either** requires motion detection by only one technology
- **PIR** requires motion detection by the PIR
- **US** requires motion detection by the Ultrasonic

Switches 4, 5, 6: Time delay
The sensor will hold lights on as long as occupancy is detected. Time delay countdown starts when no motion is detected. After no motion is detected for the length of the time delay, the sensor will turn lights off.

Time Delay	4	5	6
15 Sec/Test	↓	↓	↓
1 Minute	↓	↓	↑
5 Minute	↓	↑	↓
10 Minute	↓	↑	↑
15 Minute	↑	↓	↓
20 Minute	↑	↓	↑
25 Minute	↑	↑	↓
30 Minute	↑	↑	↑

Walk Through	7
Disabled	↓
Enabled	↑

Switch 7: Walk-Through Mode
Turns the lights off three minutes after area is initially occupied, if no motion is detected after the first 30 seconds. If motion continues beyond the first 30 seconds, the selected time delay applies.