

sensorswitch

Mini Product Guide





Better Performance Through Advanced Technology

- 100% Digital Passive Infrared (PIR) Detection
- Dual Technology Detection utilizing Microphonics™
- Contractor Friendly Wiring Features

Passive Dual Technology

Passive Dual Technology (PDT) utilizes both digital passive infrared (PIR) detection and Microphonics™ technology to “see” occupant motion and “hear” the sounds occupants make, enabling more effective detection in rooms with obstructions.

- More effective than sensors with two technologies that only detect motion, such as Ultrasonic and PIR
- Immune from conditions that typically cause false ons (e.g., non-occupant motion within a space)
- 100% acoustically passive - no high frequency transmissions, no potential for interference and none of the headaches common with other technologies



IECC Energy Code Requirements

The chart below is an overview of the Code Requirements for Common Building Spaces. Please use this information as a guide. For specific code requirements, please refer to the IECC code.

	Control Requirement*	Code Provision	Code Summary*	Space Type			
				Private Office	Open Office	Conference, Meeting, Multipurpose Room	Classroom, Lecture Hall, Training Room
On-Off Control	Manual-On or AutoOn ≤ 50%	C405.2.1.1.2	Automatically controlled spaces must be controlled to automatically turn the lighting on to not more than 50% power.	✓	✓	✓	✓
	Full Automatic-On	C405.2.1.1.2	Automatically controlled spaces are allowed to turn on to full.				
	Auto-Off ≤ 50%	C405.2.1.2	Occupancy sensors shall automatically reduce lighting in warehouse aisle-ways and open areas by ≤ 50%				
	Full Auto-Off via Occupancy Sensor	C405.2.1.1.1	Fixtures must automatically turn off within 30 minutes of all occupants leaving the space.	✓	✓	✓	✓
	Time-Switch Controls (via System Controller)	C405.2.2.1	Each area of the building not provided with occupant sensor controls shall be provided with time switch controls. These areas must also be provided with a manual override switch.		(or) ✓		
	Light Reduction Controls	C405.2.2.2	Spaces shall have a manual control that allows the occupant to reduce the connected lighting load uniformly by at least 50%.		✓		
	Manual Control (Local Switch)	C405.2.2.3	Areas shall incorporate a manual control to allow occupants to turn fixtures off.	✓	(or) ✓	✓	✓
Daylight Control	Daylight-Responsive Controls	C405.2.3.1/2	Daylight-responsive controls shall be provided within each space with sidelight and toplight daylight zones totaling > 150W.	✓	✓	✓	✓

Wall Switch Sensors

Quick & Easy Energy Savings

Applications

- **PIR** - Private Restrooms, Copy Rooms, Closets
- **PDT** - Private Office, Restroom with Stalls, Small Meeting Rooms

Features

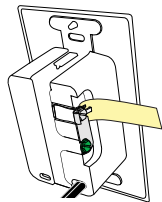
- Device accommodates powering over ground or neutral connection (patent pending); converts in seconds
- 100% digital PIR detection & photocell standard
- Small motion detection to 20 ft & large motion >36 ft
- Ruggedized assembly, vandal resistant lens standard
- Compatible w/ LEDs, Fluorescents, CFLs, & Incandescents
- Fully meets NEC 2011 Section 404.2C neutral requirements



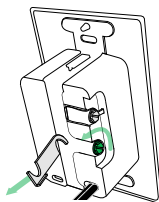
Programmable with the Sensor Switch VLP Mobile App!

Model #	Description
WSX WH	PIR, Auto On (default) or Manual On
WSX VA	PIR, Manual On (Vacancy) Only
WSX PDT WH	Dual Tech, Auto On (default) or Manual On
WSX PDT VA	Dual Tech, Manual On (Vacancy) Only
WSX 2P WH	PIR, Dual Relay (Pole 1: Auto On; Pole 2: Manual On)
WSX PDT 2P WH	Dual Tech, Dual Relay (Pole 1: Auto On; Pole 2: Manual On)

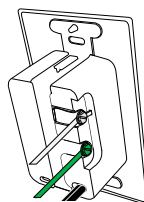
Conversion From Ground Only (No Neutral) To Neutral Wiring:



STEP 1:
Remove yellow label.



STEP 2:
Loosen Screws &
Remove Metal Link.



STEP 3:
Connect Ground to Green Screw &
Neutral to Silver Screw.

Low Voltage Sensors

Ideal for Spaces Requiring Multiple Sensors

Applications

- Open Office, Classroom, Conference Room, Large Office, Corridor, Large Storage Area, Lobby
- Small motion sensors best for areas where people are stationary
- Large motion sensors best for areas with walking traffic
- Dual Tech detection required for areas with obstructions



Features

- No sensitivity adjustments required - install and forget
- Simple push-button time delay adjustment - no tools required
- Utilizes power pack (PP20) to switch entire circuit
- Convenient mounting without junction boxes:
 - 360° ceiling enclosure (pictured above, left) surface mounts directly to ceiling tiles
 - 120° wide view enclosure (pictured above, right) directly mounts in a corner or to a wall

Options

- Low Voltage Auxiliary Relay
- Photocell Override
- 0-10 VDC Dimming
- Low Temp / High Humidity

Model #	Description	Coverage Area*
CM 9	360° Small Motion, PIR, Ceiling Mount	~12 ft (3.66 m) radius (~500 ft ²)
CM PDT 9	360° Small Motion, Dual Tech, Ceiling Mount	
CM 10	360° Large Motion, PIR, Ceiling Mount	~24 ft (7.32 m) radius (~2000 ft ²)
CM PDT 10	360° Large Motion, Dual Tech, Ceiling Mount	
WV 16	120° Small Motion, PIR, Corner Mount	Small motion ~40 ft (12.19 m) Large motion ~70 ft (21.34 m)
WV PDT 16	120° Small Motion, Dual Tech, Corner Mount	
HW 13	Hallway, Large Motion, PIR, Wall Mount	~70 ft (21.34 m) when mounted at 7 ft (2.13m)

*At 9 ft mounting height

Power/Relay Packs

Provides Low Voltage Power & Switches Lighting

Features

- Powers up to 14 low voltage sensors & wall stations
- Rated for 20A lighting or receptacle loads



Model #	Description
PP20	Power/Relay Pack (120/277 VAC)

Daylight Controllers

Maximize Energy Savings Through Daylight Harvesting

Applications

- Meets daylight control code requirements for spaces with significant daylight contribution from windows or skylights

Features

- Interfaces with low voltage sensors & wall controls
- Available in on/off or auto-dimming (0-10 VDC) versions
- Self-Calibrating - capable of finding optimum set-point
- Easy to Apply - deploy standalone or combine with occupancy sensors



Model #	Description
CM ADC	Dimming Photocell, Low Voltage, 0-10 VDC, Ceiling Mount
LSXR ADC	Dimming Photocell, Line Voltage, 0-10 VDC, Fixture Mount
CM PC	On/Off Photocell, Low Voltage, Ceiling Mount
CMR PC	On/Off Photocell, Line Voltage, Ceiling Mount

Low Voltage Switch

Interfaces with Sensors to Enable Full Code Compliance

Applications

- Provides code-compliant manual control when applied with low voltage occupancy sensors and relay packs
- Alternative usage as override switch for auto-on applications

Features

- Single gang enclosure with 1 or 2 on/off switches
- Soft-touch tactile control
- Optional dual manual-on operation
- 3X option enables unit for multi-way configurations (i.e., 3-way, 4-way, etc.)
- Optional 0-10 VDC dimming control



Model #	Description
SPODM SA WH	Sensor Interface Switch – Manual On (default)
SPODM 2P WH	Dual Sensor Interface Switch – Switch 1 Manual On / Switch 2 Auto On
SPODM SA D WH	Sensor Interface Switch & 0-10 VDC Dimming Control - Manual On
SPODM WH	Sensor Interface Switch – Auto On (default)

Fixture Mount Sensors

Interchangeable Lenses for Maximum Versatility

Applications

- Warehouses, Distribution Centers, Gymnasiums, Industrial Spaces

Features

- Integrated mounting bracket drops lens down 3" from chase nipple - no bracket accessory required
- Single or dual relay versions
- Single Phase 120/277 VAC and 347 VAC
- Two Phase 208/240 VAC and 480 VAC
- Photocell and 0-10 VDC dimming options
- Highly configurable ordering options



Programmable with the Sensor Switch VLP Mobile App!

Four Interchangeable Lenses



#6 Lens High Mount
15 to 45 ft
(4.57 to 13.72 m)
mounting height



#10 Lens Low Mount
7 to 15 ft
(2.13 to 4.57 m)
mounting height

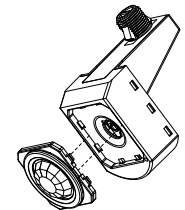
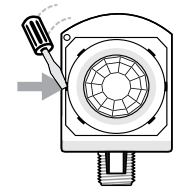


#50 Lens Aisleway
bidirectional
range of ~1.2 x
mounting height



#9 Lens Small Motion
8 to 15 ft
(2.44 to 4.57 m)
mounting height

Easy Lens Change



Model #	Description
LSXR 610	High Mount 360° Sensor with Accessory Low Bay Lens
LSXR 610 HL	High/Low Mount 360° Sensor with High/Low Dimming Control Option
LSXR 610 P	High/Low Mount 360° Sensor with On/Off Photocell Option
LSXR 610 ADC	High/Low Mount 360° Sensor with Auto Dimming Photocell Option
LSXR 610 2P	High/Low Mount 360° Sensor with Dual Relay Control

Application Guide

The below table lists recommended sensor solutions for common spaces. Information on the full line of Sensor Switch products is available in the full product catalog or online at sensorswitch.com.



Solution Options	Model #
Small Office/Meeting/Break Room	
Wall Switch Sensor with Dimming	WSX PDT D VLP
Wall Switch Sensor - Manual On	WSX PDT VA WH
Wall Switch Sensor W/ Dual Relays (Pole 1 Auto On, Pole 2 Manual On)	WSX PDT 2P WH
Ceiling 360° Sensor W/ Two Relay Packs And Switch	CM PDT 9, PP20 (QTY 2) & SPODM 2P WH
Open Office	
Ceiling 360° Sensor W/ Two Relay Packs & Switch	CM PDT 9 (~1 PER 30 X 30 FT AREA), PP20 (QTY 2) & SPODM 2P WH
Corridor/Hallway	
Short Straight Hallways - Dual Hallway Sensors	HW 13 (QTY 2) & PP20 (QTY 1) (OPTIONAL WV BR CEILING MOUNT BRACKET)
Longer Corridors With Alcoves/Vestibules - Ceiling 360° Sensor	CM 10 (1 PER ~50 FT) & PP20 (1 PER CIRCUIT OR SWITCH LEG)
L-Shaped - Hallway Sensor & Ceiling 360° Sensor	HW 13, CM 10, & PP20
Private Restroom/Closet	
Wall Switch Sensor	WSX WH
Ceiling 360° Sensor	CM 9 & PP20
Public Restroom	
Wall Switch Sensor	WSX PDT WH
Wall Switch Sensor W/ Dual Relays For Light & Fan	WSX PDT 2P WH
Ceiling 360° Sensor	CM PDT 9 & PP20
Classroom	
Wide View Sensor	WV PDT 16, PP20 (QTY 2), & SPODM 2P WH
Ceiling 360° Sensor	CM PDT 10, PP20 (QTY 2), & SPODM 2P WH