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.

**KEY ENERGY CODE**

**REQUIREMENTS**

- ASHRAE/IES 90.1-2010 applies to any new construction projects and retrofit projects involving alteration of ≥ 10% of connected lighting load.
- All lighting systems must be turned OFF when not in use*. Occupancy sensors are the easiest way to comply.
- Spaces must also have a lighting control device that is either:
  - Manual-On or Auto-On to ≤ 50% (via either Bi-Level Switching or Dimming*). Both of these methods necessitate a manual control.
- The following spaces require the installation of an occupancy sensor (or a timer switch) that turns lighting off within 30 minutes after the last occupant leaves the space:
  - All offices 250 ft² or less
  - Restrooms
  - Classrooms
  - Lecture halls
  - Conference and meeting rooms
  - Training rooms
  - Employee lunch & break rooms
  - All storage & supply rooms between 50-1000 ft²
  - Rooms used for document copying & printing
  - Dressing, locker, and fitting rooms
- Many enclosed spaces must have controls that reduce the power level by 30-70% in addition to turning off all lighting (this generally requires either control for Bi-Level Switching or Dimming)*.

*Note: exceptions apply, refer to code for all applicable details

**MINI PRODUCT GUIDE**

**100% Digital Passive Infrared (PIR) Detection**

**Dual Technology Detection utilizing Microphonics**

**Contractor Friendly Wiring Features**

**BETTER PERFORMANCE THROUGH ADVANCED TECHNOLOGY**

**PASSIVE DUAL TECHNOLOGY**

**[ PIR/MICROPHONICS™ ]**

- Sensors both see occupant motion and hear the sounds they make
- More effective than sensors using two technologies that only detect motion (e.g., Ultrasonic/PIR)
- Immune from conditions that typically cause false ons (e.g., persons walking by a space or non-occupant motion within a space)
- 100% acoustically passive - no high frequency transmissions, no potential for interference, & none of the headaches common with other technologies

**MICROPHONICS™ TECHNOLOGY**

Sets The New Standard For Occupancy Detection In Rooms With Obstructions

**APPLICATION GUIDE**

1.800.PASSIVE

Form 1412.007 www.sensorswitch.com
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*Note: exceptions apply, refer to code for all applicable details
WALL SWITCH SENSORS

Quick & Easy Energy Savings

APPLICATIONS

- PIR - Private Restrooms, Copy Rooms, Closets
- DUAL TECH - 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

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.

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)
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

<table>
<thead>
<tr>
<th>MODEL #</th>
<th>DESCRIPTION</th>
<th>COVERAGE AREA*</th>
</tr>
</thead>
<tbody>
<tr>
<td>CM 9</td>
<td>360° Small Motion, PIR, Ceiling Mount</td>
<td>~12 ft (3.66 m) radius (~500 ft²)</td>
</tr>
<tr>
<td>CM PDT 9</td>
<td>360° Small Motion, Dual Tech, Ceiling Mount</td>
<td>~24 ft (7.32 m) radius (~2000 ft²)</td>
</tr>
<tr>
<td>CM 10</td>
<td>360° Large Motion, PIR, Ceiling Mount</td>
<td>Small motion ~40 ft (12.19 m)</td>
</tr>
<tr>
<td>CM PDT 10</td>
<td>360° Large Motion, Dual Tech, Ceiling Mount</td>
<td>Large motion ~70 ft (21.34 m)</td>
</tr>
<tr>
<td>WV 16</td>
<td>120° Small Motion, PIR, Corner Mount</td>
<td>~70 ft (21.34 m) when mounted at 7 ft (2.13m)</td>
</tr>
<tr>
<td>WV PDT 16</td>
<td>120° Small Motion, Dual Tech, Corner Mount</td>
<td></td>
</tr>
<tr>
<td>HW 13</td>
<td>Hallway, Large Motion, PIR, Wall Mount</td>
<td></td>
</tr>
</tbody>
</table>

*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

<table>
<thead>
<tr>
<th>MODEL #</th>
<th>DESCRIPTION</th>
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</thead>
<tbody>
<tr>
<td>PP20</td>
<td>Power/Relay Pack (120/277 VAC)</td>
</tr>
</tbody>
</table>
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
CMRB 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
- Power options for MVOLT/HVOLT & single/two-phase
- Photocell and 0-10 VDC dimming options
- Highly configurable ordering options

**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
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

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<thead>
<tr>
<th>SMALL OFFICE / MEETING / BREAK ROOM</th>
<th>MODEL #</th>
</tr>
</thead>
<tbody>
<tr>
<td>WALL SWITCH SENSOR - MANUAL ON</td>
<td>WSX PDT VA WH</td>
</tr>
<tr>
<td>WALL SWITCH SENSOR W/ DUAL RELAYS</td>
<td>WSX PDT 2P WH</td>
</tr>
<tr>
<td>(POLE 1 AUTO ON, POLE 2 MANUAL ON)</td>
<td></td>
</tr>
<tr>
<td>CEILING 360° SENSOR w/ TWO RELAY PACKS AND SWITCH</td>
<td>CM PDT 9, PP20 (QTY 2) &amp; SPODM 2P WH</td>
</tr>
</tbody>
</table>

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<tr>
<th>OPEN OFFICE</th>
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</thead>
<tbody>
<tr>
<td>CEILING 360° SENSOR w/ TWO RELAY PACKS &amp; SWITCH</td>
<td>CM PDT 9 (~1 PER 30 X 30 FT AREA), PP20 (QTY 2) &amp; SPODM 2P WH</td>
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<tr>
<th>CORRIDOR / HALLWAY</th>
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</thead>
<tbody>
<tr>
<td>SHORT STRAIGHT HALLWAYS - DUAL HALLWAY SENSORS</td>
<td>HW 13 (QTY 2) &amp; PP20 (QTY 1) (OPTIONAL WV BR CEILING MOUNT BRACKET)</td>
</tr>
<tr>
<td>LONGER CORRIDORS WITH ALCOVES / VESTIBULES - CEILING 360° SENSOR</td>
<td>CM 10 (1 PER ~50 FT) &amp; PP20 (1 PER CIRCUIT OR SWITCH LEG)</td>
</tr>
<tr>
<td>L-SHAPED - HALLWAY SENSOR &amp; CEILING 360° SENSOR</td>
<td>HW 13, CM 10, &amp; PP20</td>
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<td>WV PDT 16, PP20 (QTY 2), &amp; SPODM 2P WH</td>
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<tr>
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<td>CM PDT 10, PP20 (QTY 2), &amp; SPODM 2P WH</td>
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