

# BRYANT® Occupancy and Vacancy Sensors

Legend			
AT	PIR	US	PC
Adaptive Technology	Passive Infrared	Ultrasonic	Photocell

## Wall Switches (Adaptive Technology)



**MSD1000 Series**

AT	PIR	US	PC	Manual and Auto-On
				120V AC 800W (INC) / 1000W (FL) 277V AC 1800W; 1000 Sq. Ft.
				1 Button, 1 Circuit <b>MSD1000x1</b>
				2 Button, 2 Circuit <b>MSD1000x2</b>
				No Button, 1 Circuit <b>MSD1000x1N</b>
				No Button, 2 Circuit <b>MSD1000x2N</b>



**MSU400 Series**

AT	PIR	US	PC	Manual and Auto-On
				120V AC 800W (INC) / 1000W (FL) 277V AC 1800W; 400 Sq. Ft.
				1 Button, 1 Circuit <b>MSU400x1</b>
				2 Button, 2 Circuit <b>MSU400x2</b>
				No Button, 1 Circuit <b>MSU400x1N</b>
				No Button, 2 Circuit <b>MSU400x2N</b>



**MS1200AT Series**

AT	PIR	US	PC	Manual and Auto-On
				120V AC 800W (INC) / 1000W (FL) 277V AC 1800W (FL); 1200 Sq. Ft.
				1 Button, 1 Circuit <b>MS1200ATx</b>

x=color: W (White), I (Ivory) or GY (Gray)

## Wall Switches (Passive Infrared)



**MS1200 Series**

AT	PIR	US	PC	Manual or Auto-On
				120V AC 800W (INC/FL); 277V AC 1200W (FL) 1200 Sq. Ft.
				Auto-On <b>MS1200x</b>

x=color: W (White), or I (Ivory)



**MS900 Series**

AT	PIR	US	PC	Manual
				120V AC 800W (INC) / 1000W (FL) 277V AC 1800W (FL); 900 Sq. Ft.
				120V AC, 1 Button <b>MS900120x</b>
				277V AC, 1 Button <b>MS900277x</b>

x=color: W (White) or I (Ivory)



**MSP2C**

AT	PIR	US	PC	Bi-Level Switching
				120V AC 800W, 277V AC 1800W 1000 Sq. Ft.
				2 Button, Double Pole <b>MSP2C</b>

## Residential Wall Switches (Passive Infrared)



**RMS121/RMS120 Series**

AT	PIR	US	PC	with Dimming
				120V AC 500W 800 Sq. Ft.
				Occupancy Sensor Manual-on and Auto-On <b>RMS121x</b>
				Vacancy Sensor Auto-On and Auto-Off <b>RMS120x</b>

x=color: W (White) or I (Ivory)



**RMS101/RMS100 Series**

AT	PIR	US	PC	One Button
				120V AC 500W 800 Sq. Ft.
				Occupancy Sensor Manual-on and Auto-On <b>RMS101x</b>
				Vacancy Sensor Auto-On and Auto-Off <b>RMS100x</b>

x=color: W (White) or I (Ivory)



**RMS141/RMS140 Series**

AT	PIR	US	PC	Heavy Duty
				120V AC 800W (INC) / 1000W (FL) 900 Sq. Ft.
				Occupancy Sensor Manual-on and Auto-On <b>RMS141x</b>
				Vacancy Sensor Auto-On and Auto-Off <b>RMS140x</b>

x=color: W (White) or I (Ivory)

## Ceiling Sensors (Adaptive Technology)



**MSD2000C**

AT	PIR	US	PC	24V DC, 33mA
				2000 Sq. Ft. <b>MSD2000C</b>
				1000 Sq. Ft. <b>MSD1000C</b>
				500 Sq. Ft. <b>MSD500C</b>



**MSU2000C**

AT	PIR	US	PC	24V DC, 33mA
				2000 Sq. Ft. <b>MSU2000C</b>
				1000 Sq. Ft. <b>MSU1000C</b>
				500 Sq. Ft. <b>MSU500C</b>



**MSP1500C**

AT	PIR	US	PC	24V DC, 33mA
				1500 Sq. Ft. <b>MSP1500C</b>
				600 Sq. Ft. <b>MSP600C</b>

Note: Must use a Control Unit with MSD, MSU and MSP ceiling sensors.

## Wall Mount Sensors (AD Tech)



**MSD1600W**

AT	PIR	US	PC	24V 33mA
				1600 Sq. Ft. <b>MSD1600W</b>



**MSP1600W/MSP120HB**

AT	PIR	US	PC	24V 33mA
				1600 Sq. Ft. <b>MSP1600W</b>
				For High Bay Applications 120 Linear Sq. Ft. <b>MSP120HB</b>

Note: Must use a Control Unit with MSD and MSP wall sensors.

## Ceiling Sensors (Non-Adaptive Technology)



**MSD2000L120**

AT	PIR	US	PC	Line Voltage
				2000 Sq. Ft.
				120V AC 2400W <b>MSD2000L120</b>
				277V AC 5000W <b>MSD2000L277</b>



**MSU1500L120**

AT	PIR	US	PC	Line Voltage
				2000 Sq. Ft.
				120V AC 2400W <b>MSU2000L120*</b>
				277V AC 5000W <b>MSU2000L277*</b>
				1500 Sq. Ft.
				120V AC 2400W <b>MSU1500L120</b>
				277V AC 5000W <b>MSU1500L277</b>

\*Not Shown



**MSP1500CL**

AT	PIR	US	PC	Line Voltage
				800W (INC); 1000W (FL) @ 120V AC 1800W (FL) @ 277V AC 2200W (FL) @ 347V AC
				1500 Sq. Ft. <b>MSP1500CL</b>

## Control Units and Add-a-Relay



**Control Units**

The MSCU provides a 24V DC power supply for 1 to 4 sensors or sensor/ Add-A-Relay combinations or 1 to 3 for CSD347A. For use with MSD/MSU/MSP series ceiling and wall mount sensors.

120/277V AC, 50/60 Hz, 15A (INC) / 20A (FL)	<b>MSCU</b>
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**Add-A-Relay**

Bryant MSAR Add-A-Relay contains an internal relay for control of an external lighting load. For use with MSD/MSU/MSP series ceiling and wall mount sensors.

120/277V AC, 50/60 Hz, 15A (INC) / 20A (FL)	<b>MSAR</b>
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## High Bay Fixture Mount Controls



**MSHB21U**

AT	PIR	US	PC

Mounts up to 45 ft. high

**Standard Series**

1 Relay; 120-347V AC	<b>MSHB21U</b>
2 Relays; 120-347V AC	<b>MSHB22U</b>

## Digital Timer

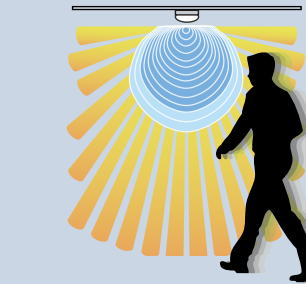


**DT12H**

120V AC 800W; 277V AC 1200W Digital Timer Switch Dip switch enabled preset intervals - 5, 15 or 30 minutes - 1, 3, 6, 9 or 12 hours
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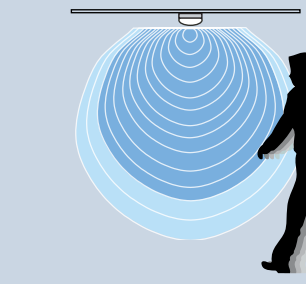
## Sensing Technologies

### Dual Technology (PIR and US)



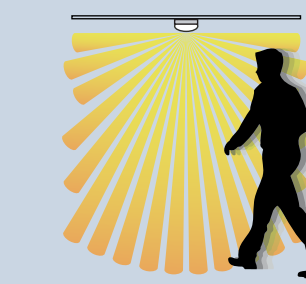
- Combines both passive infrared and ultrasonic technologies for maximum reliability.
- Minimizes false triggering.
- Continued detection by only one technology then keeps lighting on as necessary.
- Offers the best performance for most applications.

### Ultrasonic (US)



- Senses occupancy by bouncing sound waves off of objects.
- Excellent at detecting even minor motion such as typing and filing.
- Does not require an unobstructed line-of-sight.
- Ideal for offices with cubicles or restrooms with stalls.

### Passive Infrared (PIR)



- Senses occupancy by detecting the movement of heat emitted from the human body against the background space.
- Requires an unobstructed line-of-sight for detection.
- Ideal for detecting major motion (e.g. walking), and they work best in small, enclosed spaces with high levels of occupant movement.

## Wall Switch Options

### Colors MSD/MSU Series



### Buttons for MSD/MSU Series



## Accessories



### Wire Guards

For Wall Switch	<b>MSWGS</b>
For Ceiling Mount	<b>MSWGC</b>
For Wall Mount	<b>MSWGW</b>

### Adapters

Ceiling Mount	<b>MSCRA</b>
Rayway	
Adapter	

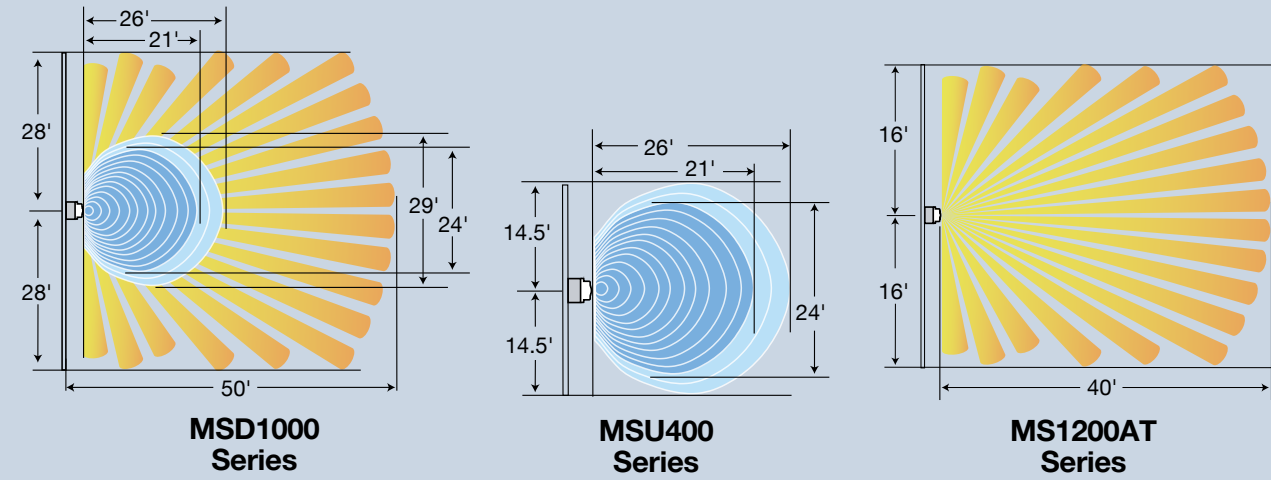
### Enclosure

Ceiling Sensor	<b>MSO4X</b>
Infrared NEMA	
4X Enclosure	

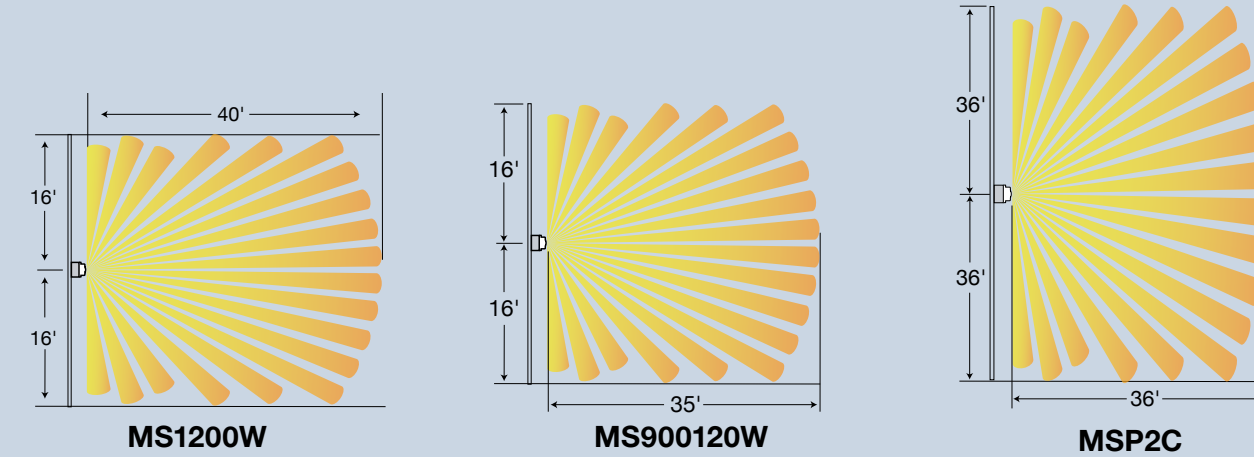
## Coverage Patterns and Wiring Schematics

Minor Motion: ■ Ultrasonic ■ PIR Major Motion: ■ Ultrasonic ■ PIR

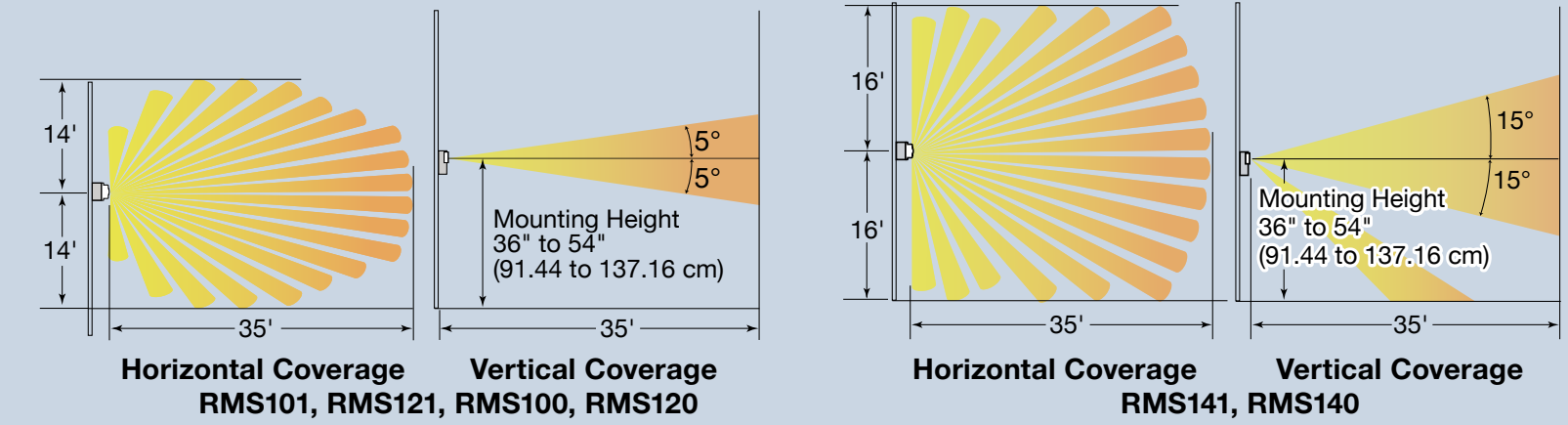
### Wall Switches (Adaptive Technology)



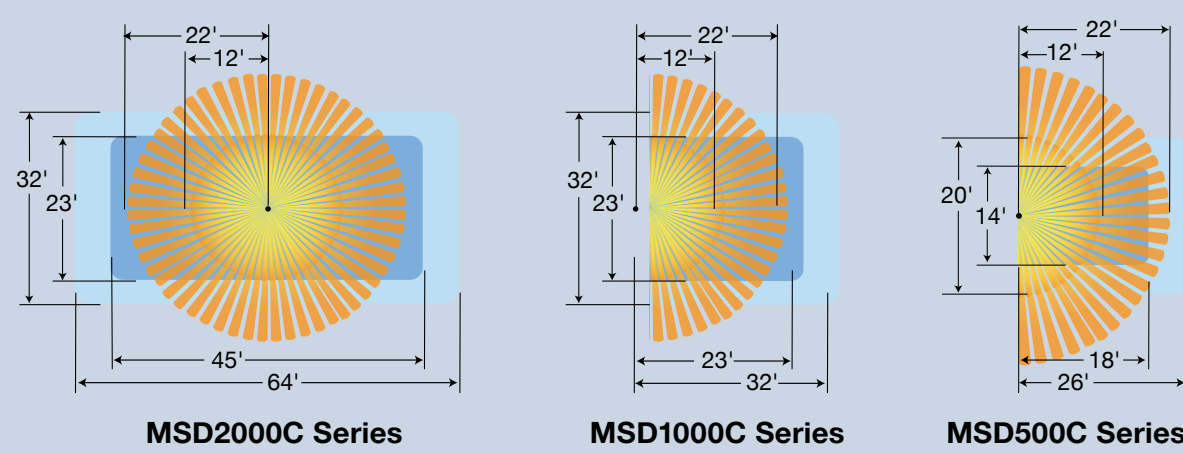
### Wall Switches (Passive Infrared)



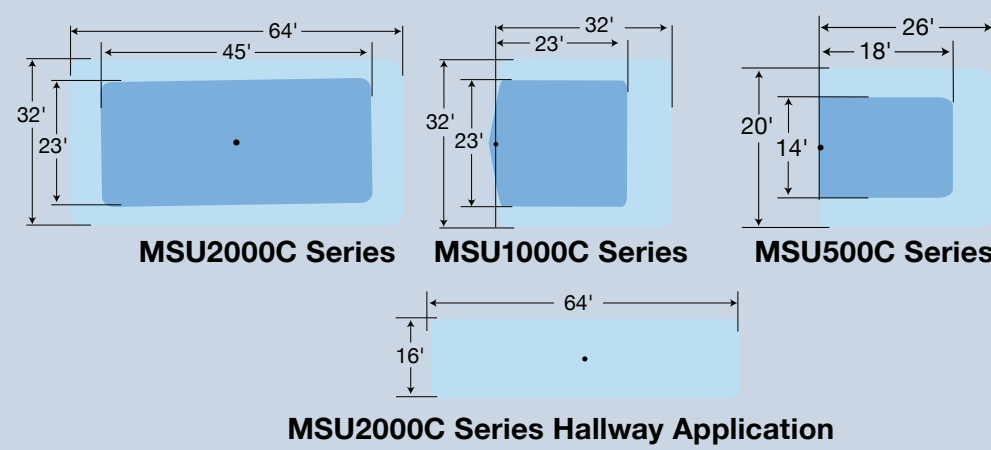
### Residential Wall Switches (Passive Infrared)



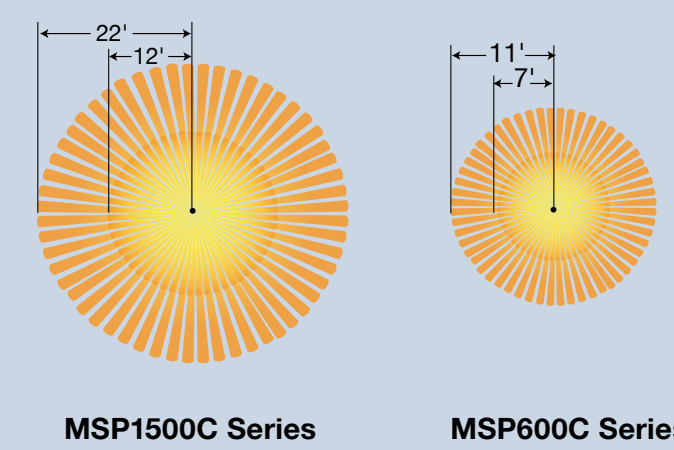
### Ceiling Sensors (MSD Series)



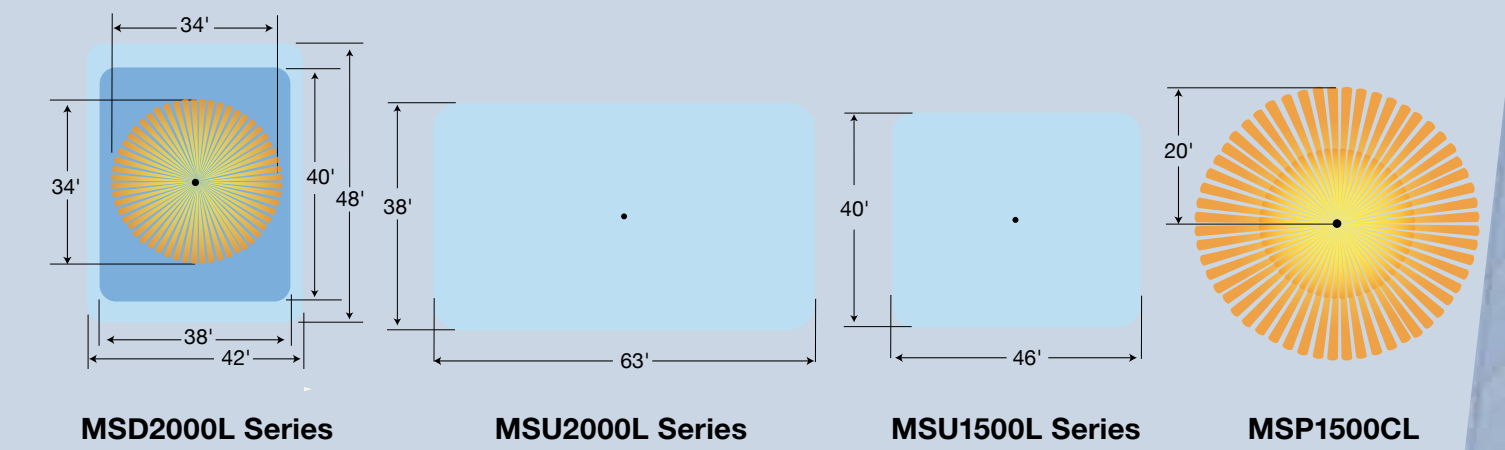
### Ceiling Sensors (MSU Series)



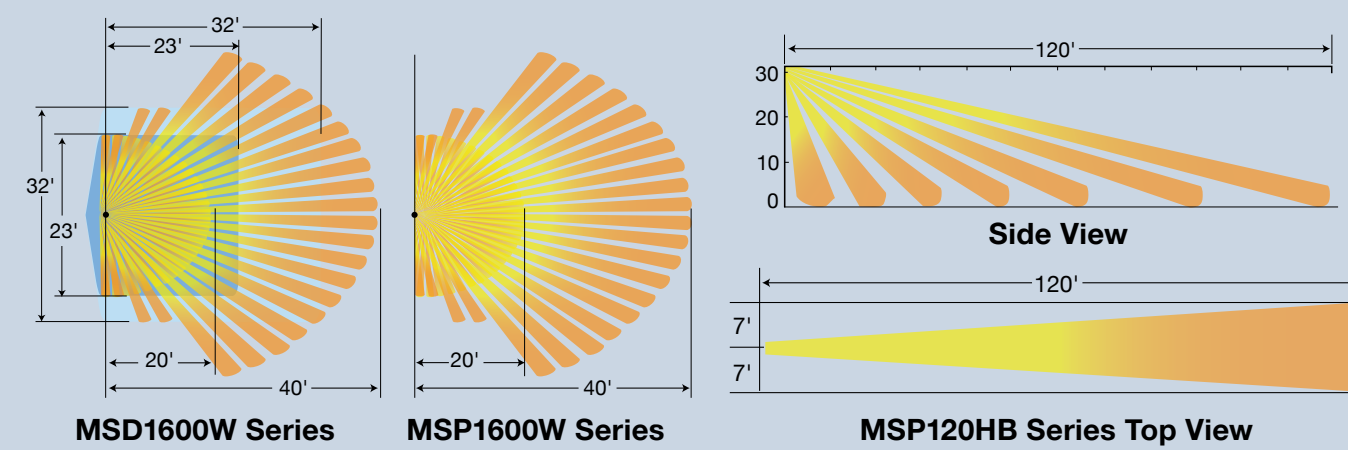
### Ceiling Sensors (MSP Series)



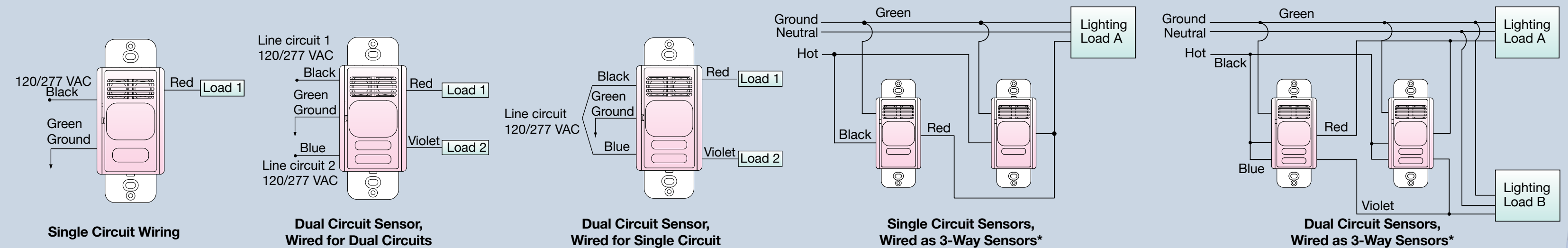
### Ceiling Sensors (Line Voltage)



### Wall Mount Sensors (MSD Series)

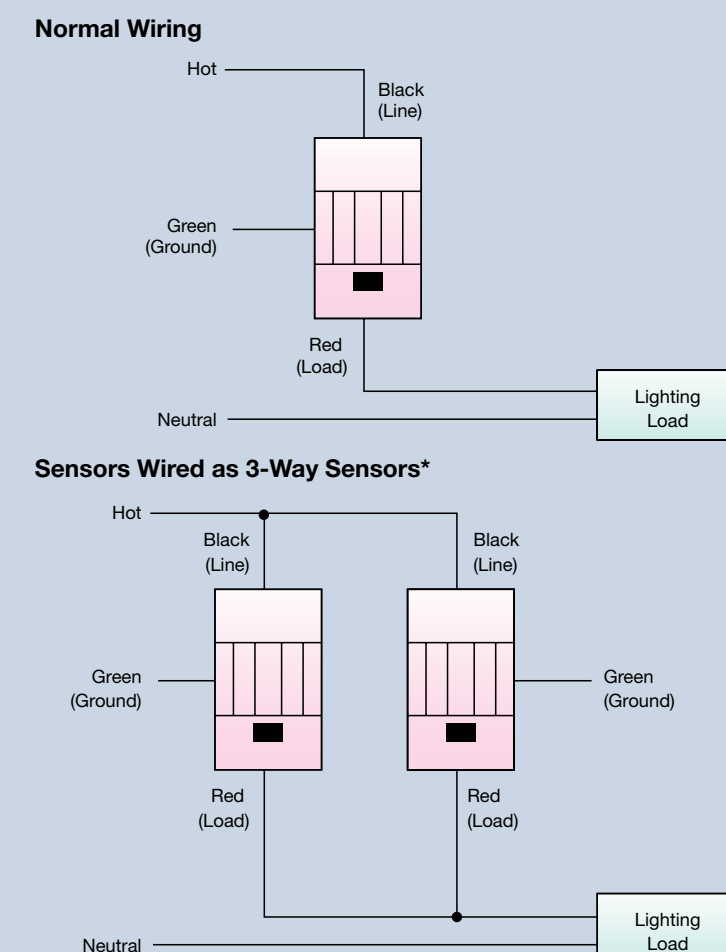


### Wiring Schematics - Wall Switches (MSD,MSU, MS1200AT and MS1200 1277 Series)



### Wiring Schematics - Wall Switches

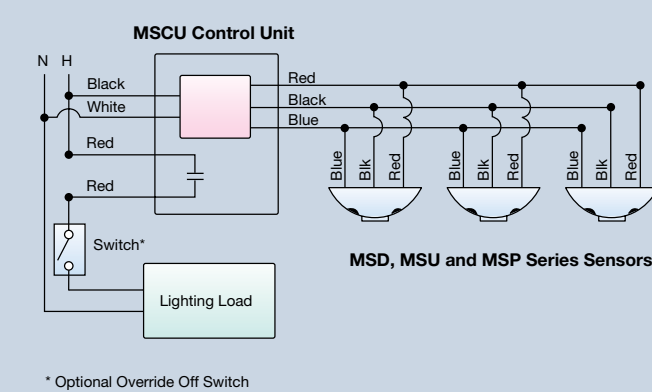
#### MS1200, MS900 and MSP2C Series



### Wiring Schematics - Ceiling and Wall Mount Sensors (MSD, MSU, MSP Series)

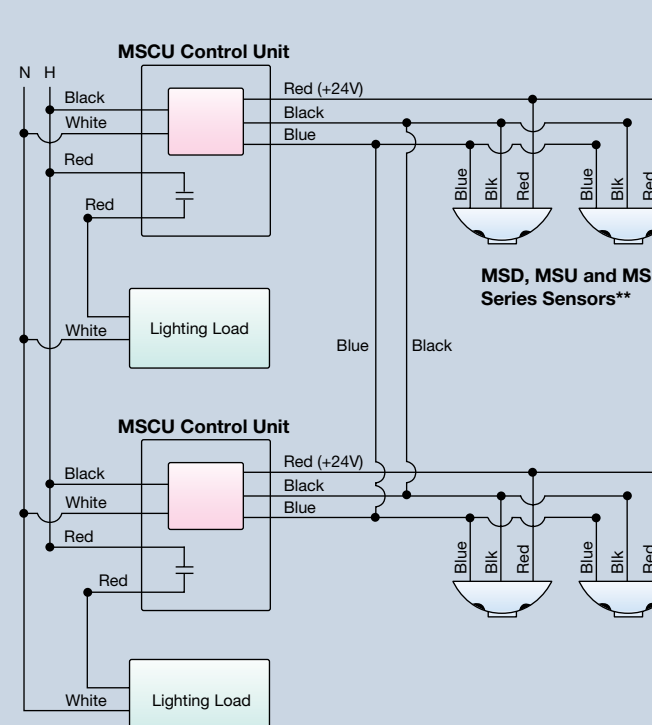
#### Single Circuit Application:

1 to 4 sensors wired to control unit with optional override off switch.



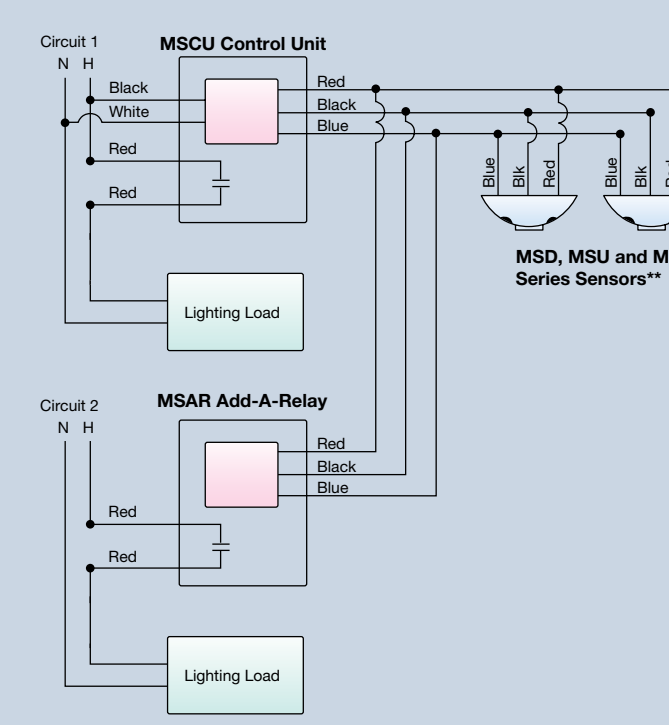
#### Single Circuit Application:

Two control units wired in parallel to operate 5 to 8 sensors in a single zone. Maximum 4 sensors per control unit any sensor will activate lighting.



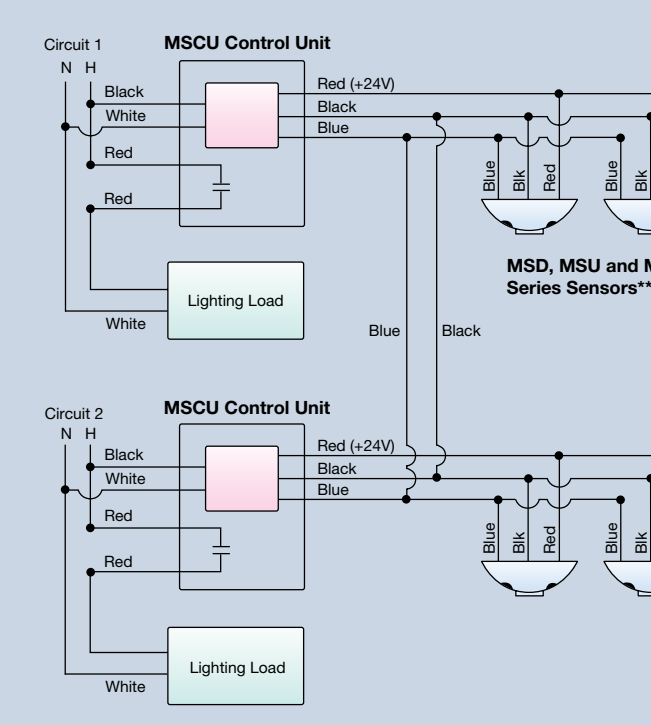
#### Two Circuit Application:

1 to 4 sensors wired to control unit and Add-A-Relay (control unit switches circuit 1, Add-A-Relay switches circuit 2).



#### Two Circuit Application:

Two control units wired in two circuits to operate 2 to 8 sensors in a single zone. Maximum 4 sensors per control unit any sensor will activate both lighting loads.



#### Single Circuit, Dual Level Switching Application:

1 to 4 sensors wired to control unit with optional override off switches.

