

### KEY SPECS

Lens High Bay 360° View  
Enclosure Recessed Mount  
Power Type Low Voltage  
Detection Passive Infrared

### TYPICAL APPLICATIONS

Warehouse  
Gymnasiums  
Racquetball Courts

### FEATURES

30 sec. to 20 min Time Delay  
Communicates w/ other Sensors  
Up to 45 ft. High Mounting  
Push-Button Programmable  
100 hr. Lamp Burn-in Timer  
Green LED Indicator

### PHYSICAL SPECS

Size 4.40" (11.18 cm) square  
Weight 6 oz.  
Mounting Recessed into a 4" x 4" square junction box  
Color White

### ELECTRICAL SPECS

Operating Voltage 12-24 VAC/VDC  
Current Draw  
Standard, 4 mA  
w/ -R option, 16 mA

### ENVIRONMENTAL SPECS

Operating Temp  
14° to 160° F (-10° to 71° C)  
Storage Temp  
-14° to 160° F (-26° to 71° C)  
Relative Humidity  
20 to 90% non-condensing  
-LT Option  
Circuit board is coated to be corrosion resistant to moisture and operate down to -40°F/°C

### OTHER

UL and CUL Listed  
Title 24 Compliant  
5 Year Warranty  
Made in the U.S.A.

## RM-6 SERIES

The *RM-6 Series* sensor was specifically designed to recess mount into linear High Bay fluorescent fixtures using standard 4" x 4" junction box spacing and is ideal for high mounting applications (15 - 45 feet). Above 15 feet, the *RM-6* provides Passive Infrared (PIR) detection in a 30 to 40 foot diameter area, making it perfect for warehouses or gymnasiums where the sensors are mounted on a 30 to 40 foot grid pattern. Multiple sensors may be used together to provide coverage as needed. If any one sensor detects occupants, all the lights will turn "On". In Racquetball Courts, it is preferred to locate the sensor near the entrance (furthest from the wall). For lower mounting applications, refer to RM-9 or RM-10 Technical Datasheets.



### SENSOR OPERATIONS

The sensor detects changes in the infrared energy given off by occupants as they move within the field-of-view. When occupancy is detected, a DC output goes high and can drive up to 200 mA of connected load. The sensor is powered with 12 to 24 VAC/VDC and typically operates with a PP-20 or MP-20 Power Pack; enabling complete 20 Amp circuits to be controlled. An internal timer, factory set at 10 minutes, keeps the lights "On" during brief periods of no activity. This timer is push-button programmable from 30 seconds to 20 minutes, and is reset every time occupancy is re-detected. This state-of-the-art design requires no manual sensitivity adjustments.

### CONTROLLING HID BI-LEVEL LIGHTING

In Gymnasiums or Warehouses where control of HID Bi-Level Lighting is desired, the *RM-6* is used with a PP-20-SH Power Pack. This Power Pack provides for a Start-to-High Timer, which brings the lamps to full "On" for up to 20 minutes upon initial power up. The Power Pack must be on the same power circuit as the fixtures to sense the initial power on condition. Some Electronic HID fixtures have this Start-to-High feature built in.

### DAYLIGHTING CONTROL OPTIONS (-P)

For spaces with abundant natural light from windows or skylights, this series offers an *On/Off Switching Photocell (-P)* option. This option is most effective when used in areas where daylight is coming in through High Bay garage doors or windows below the level of the sensor. As the daylight levels change in the room, the sensor insures that an adequate light level is maintained according to a programmable set-point value. The -P option provides two modes of operation; one simply inhibits the lights from turning on, while the other has full On/Off control of the lights. For skylight applications consider using the Fixture Mounted version of this sensor (CMB-6-P).

### ISOLATED LOW VOLTAGE RELAY OPTION (-R)

To enable a sensor to interface with a building management system, the -R option provides dry contact closure via a SPDT, 1 Amp, 40 Volt relay. The relay is energized when ALL connected sensors register "Unoccupied". When using multiple sensors, only one sensor per zone needs to have a relay.

**Note:** Sensor must have power at all times for the relay to function.

## ORDERING BLOCK

### RM-6-[RELAY]-[DAYLIGHTING]-[TEMP/HUMIDITY]

OPTIONS	RELAY*	DAYLIGHTING	TEMP/HUMIDITY
		Blank = None -R = Isolated Relay	Blank = None -P = On/Off Photocell

\*use -RP when ordering both -R & -P

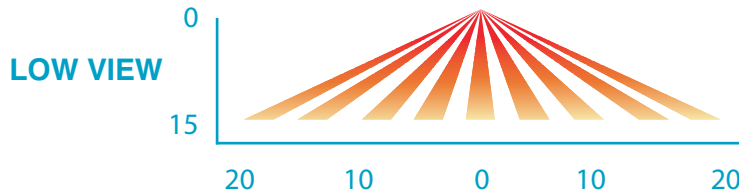
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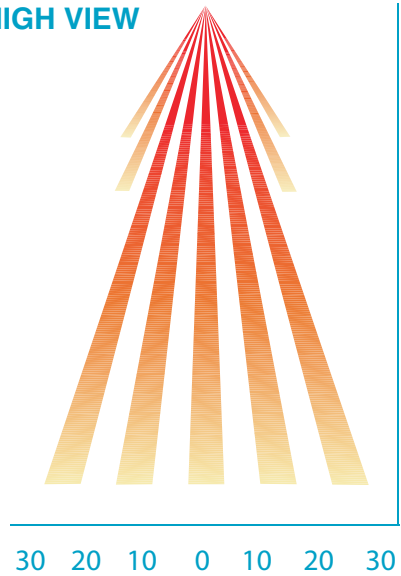
## COVERAGE PATTERN

### 6 HIGH BAY 360° VIEW LENS

- Best choice for 15 to 45 ft. mounting heights
- 15 to 20 ft. radial coverage overlaps area lit by a typical high bay fixture
- Large Motion (e.g. walking) detection up to a 35 ft. mounting height
- Extra Large Motion (e.g. forklifts) detection up to a 45 ft. mounting height

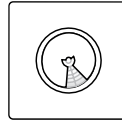


### HIGH VIEW

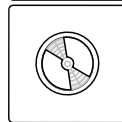


### MASKING KIT

- A masking kit is provided in order to mask off a portion of the view pattern for end-of-aisle applications; or to trim the sensor's side viewing to create a rectangular pattern for center-of-aisle viewing only.



End of Aisle



Center of Aisle

**Note:** Heat producing sources controlled by the sensor must not be in the view pattern of the sensor. If sensor cycles or appears to continually stay "On", move sensor or mask lens segments that view the source.

\*diagrams labeled in feet

## WIRING (DO NOT WIRE HOT)

### STANDARD WIRING

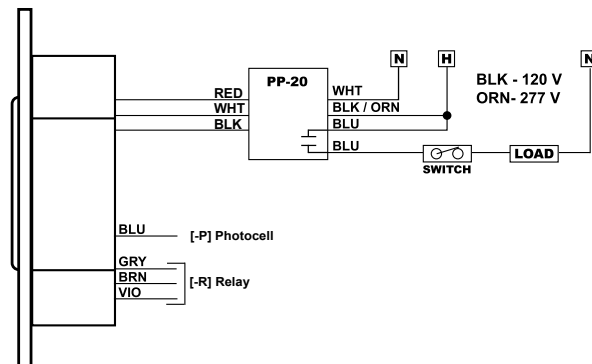
- RED - 12 to 24 VAC/VDC
- BLACK - Common
- WHITE - Output (High DC for Occupancy)

### RELAY OPTION (-R)

- GRAY / BROWN - Connected during Occupied state
  - VIOLET / BROWN - Connected during Unoccupied state
- Note:** Relay is energized during Unoccupied state

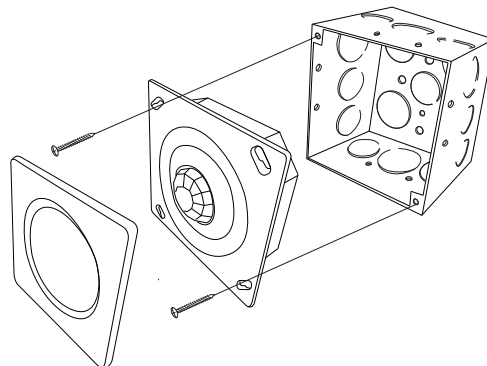
### PHOTOCELL OPTION (-P)

- BLUE - Photocell output (High: Occupied & Low Light)
- Use Blue wire from sensor in place of White wire. For multi-level control, use 2 Power Packs and connect White to primary load and Blue to daylight load.



## INSTALLATION

- The Recessed Mount enclosure is designed to fit inside a 4" square junction box (minimum box depth 2.125").
- Passive Infrared sensors detect motions crossing the beams much stronger than when entering the beams. The outer beams used for initial detection should be aligned for maximum coverage.



**sensorswitch**

**WARRANTY:** Sensor Switch, Inc. warrants these products to be free of defects in manufacture and workmanship for a period of 60 months. Sensor Switch, Inc., upon prompt notice of such defect will, at its option, provide a Returned Material Authorization number and repair or replace returned product.

**LIMITATIONS AND EXCLUSIONS:** This Warranty is in full lieu of all other representation and expressed and implied warranties (including the implied warranties of merchantability and fitness for use) and under no circumstances shall Sensor Switch, Inc. be liable for any incidental or consequential property damages or losses.