



### HIGH BAY AISLEWAY SENSOR

FIXTURE MOUNT BOX • LINE VOLTAGE • PASSIVE INFRARED (PIR)

#### SPECIFICATIONS

##### FEATURES

- 100% Digital PIR Detection, Excellent RF Immunity
- Up to 45 ft (13.72 m) Mounting
- Self-Contained Relay, No Power Pack Needed
- No Minimum Load Requirements
- Compatible w/ Electronic & Magnetic Ballasts, CFLs, LED, & Incandescents
- Interchangeable Hot & Load Wires, Impossible to Wire Backwards
- Push-Button Programmable
- Non-Volatile Settings Memory
- Adjustable Time Delays
- No Field Calibration or Sensitivity Adjustments Required
- Convenient Test Mode
- 100 hr Lamp Burn-in Timer
- Green LED Indicator

##### LAMPMAXIMIZER® TECHNOLOGY

- Protects Lamp Life while Maximizing Energy Savings
- Minimum On Timer (15 min default)
- Occ. Time Delay (10 min default)
- LampMaximizer+ Mode - Optimizes Lamp Life & Energy Savings (disabled by default)
- Switch Counter (in 1000's)
- Total Lamp On Time (in khrs)

##### PHYSICAL SPECS

SIZE 3.63" H x 3.63" W x 1.50" D  
(9.22 cm x 9.22 cm x 3.81 cm)  
WEIGHT 6 oz  
MOUNTING 1/2" knockout  
COLOR White

##### ELECTRICAL SPECS

MAXIMUM LOAD  
800 W @ 120 VAC  
1200 W @ 277 VAC  
1500 W @ 347 VAC  
MINIMUM LOAD None  
MOTOR LOAD 1/4 HP  
FREQUENCY 50/60 Hz  
DIMMING LOAD Sinks < 20mA;  
~40 Ballasts @ .5mA each

##### ENVIRONMENTAL SPECS

OPERATING TEMP  
14° to 160° F (-10° to 71° C)  
RELATIVE HUMIDITY  
20 to 90% non-condensing  
SILICONE FREE  
ROHS COMPLIANT

##### OVERVIEW

The **CMRB 50** Series High Bay Aisleway occupancy sensor provides bi-directional detection extending 70-110 ft (21.33-33.53 m) when mounted at heights of 30-45 ft (9.14-13.72 m). The **CMRB 50** installs to a junction box or fixture with a 1/2 inch knockout and has a detection pattern that covers the area lit by three typically spaced high bay fixtures. Therefore, when mounted at a fixture, the coverage area extends out to the area that is lighted by each of the neighboring fixtures. This effect is useful with some ballasts that have a delay such that when traveling in a fork-lift truck, lighting needs to be initiated ahead of the truck.

##### SENSOR OPERATION

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 self-contained relay switches the connected lighting load on. The sensor is line powered, switches line voltage, and requires no field calibration or sensitivity adjustments.

##### LAMPMAXIMIZER®

This sensor also contains patent pending LampMaximizer technology that allows users to aggressively target energy savings while still protecting lamp life. A minimum on timer, factory set at 15 minutes, helps preserve lamp life by eliminating all lamp cycles shorter than lamp manufacturers' recommendations.

A standard occupancy time delay is also present that ensures lights turn off (assuming minimum on timer has elapsed) if no occupancy is detected. This timer is factory set at 10 minutes to promote energy savings, but is adjustable between 30 seconds and 20 minutes. These adjustments can be done manually, through the unit's push-button, or automatically every two weeks through an advanced mode, called LampMaximizer+, that determines the optimum time delay in order to maximize both lamp life and energy savings. Additionally, this sensor maintains statistics on total lamp on time and number of cycles.

#### OPTIONS

##### OCCUPANCY CONTROLLED DIMMING (D)

- Provides dimming outputs to control 0-10 VDC dimmable ballasts
- Provides a second occupancy time-out period that enables the lights to go to a dim setting before turning off
- Adjustable max/min dim setting

##### PHOTOCELL (P)

- Photocell views down through sensor lens
- Auto set-point calibration
- Two selectable modes of operation
- On/Off mode: Photocell has full control during periods of occupancy
- Inhibit mode: Photocell can prevent lights from turning on if adequate daylight is available, but cannot turn lights off

##### 347 VAC (347)

- Allows sensor to be powered from and switch 347 VAC

##### LOW TEMP/HIGH HUMIDITY (LT)

- Sensor electronics are coated for corrosion resistance
- Operates down to -40° F/C
- Required for cooler/freezer applications
- Analog PIR used with LT units
- Units with both P and LT options are non ROHS compliant

##### CORDED LEADS (CRD36)

- Leads together inside 36" white UL-SEOOOW / CSA-STOOW rated cord
- Available with 3 or 5 conductors (depends on sensor model)



TITLE 24  
ASSEMBLED in U.S.A.  
5 YEAR WARRANTY

#### ORDERING INFO

CMRB 50 [DIMMING] [PHOTOCELL] [VOLTAGE] [TEMP/HUMIDITY]

##### DIMMING

Blank = None  
D = Occupancy  
Controlled  
Dimming

##### PHOTOCELL

Blank = None  
P = Photocell

##### VOLTAGE

Blank = 120/277 VAC  
347 = 347 VAC

##### TEMP/HUMIDITY

Blank = Standard  
LT = Low Temp

##### WIRE

Blank = Standard  
24L = 24" Leads  
36L = 36" Leads  
CRD36 = 36" Cord

## COVERAGE PATTERN

### 50 HIGH BAY AISLEWAY LENS

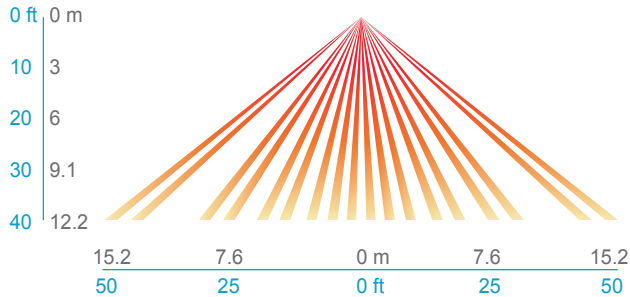
- Provides 50° bi-directional and 10° wide coverage pattern
- 1.2x mounting height equals approximate detection range in either direction
- Typical 40 ft (12.19 m) mounting detects 50 ft (15.24 m) in either direction



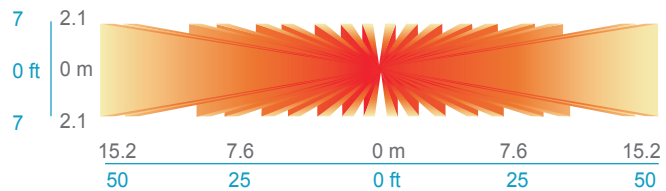
#### 90° LENS ROTATION

The sensor's lens turret rotates 90° in order to easily adjust the direction of the view pattern

#### SIDE VIEW



#### TOP VIEW



## WIRING (DO NOT WIRE HOT)

#### STANDARD WIRING

- BLACK\* - Line Input
  - BLACK\* - Load Output
  - WHITE - Neutral
- \*BLACK wires can be reversed

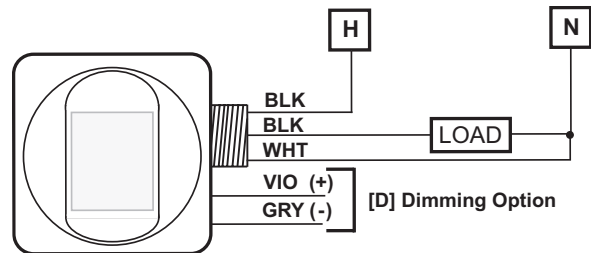
#### 347 VAC OPTION (347)

Black wires are replaced w/ Red wires

#### INITIAL POWER UP

The sensor's relay is shipped in a latched closed position so the lights will come on upon initial power-up. If the lights do not immediately turn on (initial installation only) the latching relay opened during shipment and will close within 30 secs.

**Note:** If the sensor loses power, the internal relay will latch closed.



#### DIMMING OPTION (D)

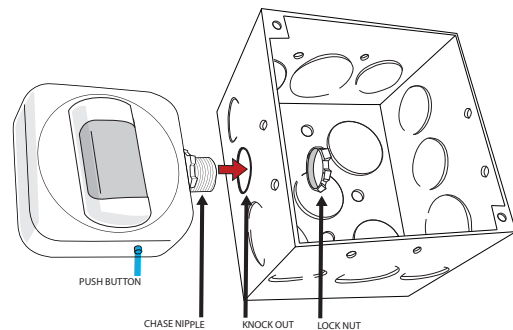
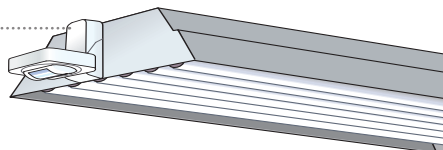
**VIOLET** - Connect to Violet control wire from 0-10 VDC dimmable ballast

**GRAY** - Connect to Gray common wire from ballast

## INSTALLATION

- Sensor mounts through a 1/2" knockout hole to a fixture or junction box.
- A masking kit is provided with the sensor in order to mask off a portion of the view pattern for end-of-aisle applications.
- If the sensor's field-of-view is partially blocked by the fixture housing, the FB3 Fixture Bracket (not included) can be used to lower the sensor down to a level where its view is not impaired.

FB3



#### PROGRAMMING

Refer to instruction IC7.001 card for default settings and directions on programming the sensor via the push-button.

**sensorswitch**

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**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.

TS-CMRB-003A