



### EXTENDED RANGE 360° SENSOR FIXTURE MOUNT BOX • LINE VOLTAGE • PASSIVE INFRARED (PIR)

#### SPECIFICATIONS

##### FEATURES

- 100% Digital PIR Detection, Excellent RF Immunity
- 360° Coverage Pattern
- Self-Contained Relay, No Power Pack Needed
- No Minimum Load Requirements
- Interchangeable Hot & Load Wires, Impossible to Wire Backwards
- Push-Button Programmable
- 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 hrs)

##### 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)  
STORAGE TEMP  
-14° to 160° F (-26° to 71° C)  
RELATIVE HUMIDITY  
20 to 90% non-condensing  
SILICONE FREE  
ROHS COMPLIANT

#### OVERVIEW

The **CMRB 10** Series occupancy sensor mounts directly to the end of a pendant or surface mount fixture and utilizes the industry's leading Passive Infrared (PIR) technology to provide maximum viewing from the ceiling. The sensor is line powered and can switch loads directly without the need for a power pack. When mounted at 9 ft (2.74 m), this sensor views up to 28 ft (8.53 m) in all directions. Its circular coverage pattern is designed for walking motions; making it ideal for T-shaped intersections in corridors, or other areas where wall mounting a sensor is not practical. The **CMRB 10** is also the best sensor for low ceiling applications. For example, when mounted at only 7 ft (2.13 m), the height of pick aisles in many distribution centers, the **CMRB 10** provides a 32 ft (9.75 m) diameter pattern of coverage. In applications where detection of minor motion is also required, the **CMRB PDT 10** Series Dual Technology sensor is recommended.

#### 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 warranties specify.

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 output 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)

- 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 can not turn lights off

##### PHOTOCELL W/ DIMMING (ADC)

- Photocell within sensor maintains total room light level by controlling levels of 0-10 VDC dimmable ballasts
- Photocell also has full on/off control during periods of occupancy
- Provides a second occupancy time-out period that enables the lights to go to a dim setting before turning off

Note: LampMaximizer+ features not available with ADC option

##### 347 VAC (347)

- Allows sensor to be powered from and switch 347 VAC

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

- Sensor is corrosion resistant to moisture
- Operates down to -40° F/C



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

#### ORDERING INFO CMRB 10 [DIMMING/PHOTOCELL] [VOLTAGE] [TEMP/HUMIDITY]

##### DIMMING / PHOTOCELL CHOOSE ONE ONLY

- Blank = None
- D = Occupancy Controlled Dimming
- P = Photocell
- ADC = Photocell w/ Dimming

##### VOLTAGE

- Blank = 120/277 VAC
- 347 = 347 VAC

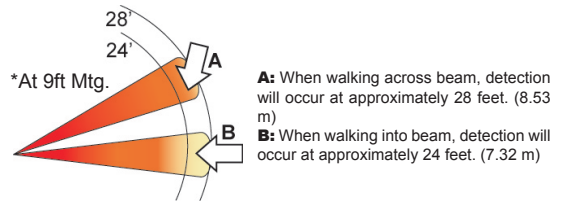
##### TEMP/HUMIDITY

- Blank = Standard
- LT = Low Temp

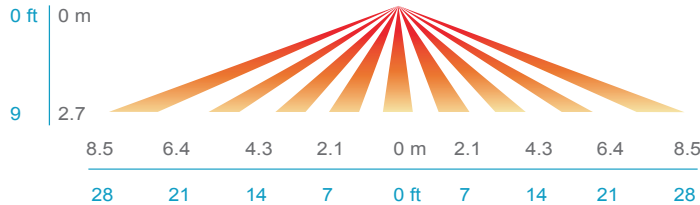
## COVERAGE PATTERN

### 10 EXTENDED RANGE LENS

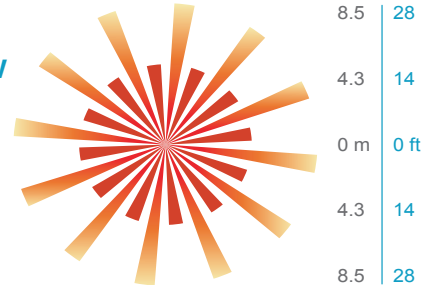
- Best choice for large motion detection (e.g. walking)
- Viewing angle of 67° in a 360° conical shaped pattern
- Provides 28 ft (8.53 m) radial coverage when mounted to standard 9 ft (2.74 m) ceiling
- 7 to 15 ft (2.13 to 4.57 m) mounting heights provide 16 to 36 ft (4.88 to 10.97 m) radial coverage



#### 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

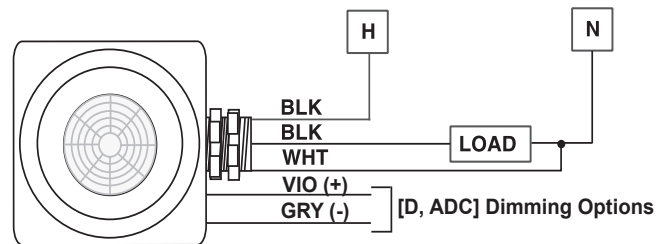
### DIMMING OPTIONS (D, ADC)

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

### INITIAL POWER UP

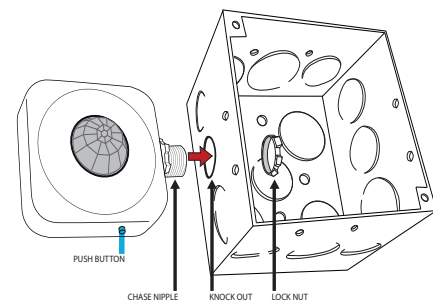
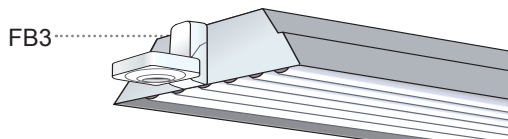
The sensor's relay is shipped in a latched closed position so the lights will come on upon initial power-up. If the lights do not immediately turn on (initial installation only) the latching relay opened during shipment and will close within 30 secs.

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



## INSTALLATION

- The Fixture Mount Box enclosure has an extended chase nipple that is used to mount the sensor through a 1/2" knockout hole to a fixture or junction box.
- Sensor will detect motions crossing segments more effectively than motions parallel to beams.
- 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.



### PROGRAMMING

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

**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.

An AcuityBrands Company

900 Northrop Road, Wallingford, CT 06492 • 1.800.PASSIVE • FX 203.269.9621 • www.sensorswitch.com

TS-CMRB-001A