

# SBOR 10 OEX SBOR 6 OEX

## **OUTDOOR POLE/FIXTURE MOUNT MOTION SENSOR** 360° COVERAGE • LINE VOLTAGE • IP66 RATED

# **SPECIFICATIONS**

#### FEATURES

100% Digital PIR Detection, Excellent RF Immunity 360° Coverage Pattern 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

## PHYSICAL SPECS

SIZE:

3.35" H x 4.40" W x 4.00" D (8.51 cm x 11.18 cm x 10.16 cm) WEIGHT: 9 oz MOUNTING: 1/2" knockout (7/8" hole) COLOR: White, Black, or Dark Bronze

# ELECTRICAL SPECS

MAXIMUM LOAD: 800 W @ 120 VAC 1000 W @ 208 VAC 1200 W @ 240 VAC 1200 W @ 277 VAC 1500 W @ 347 VAC 2160 W @ 480 VAC MINIMUM LOAD: None MOTOR LOAD: 1/4 HP FREQUENCY: 50/60 Hz DIMMING LOAD: Sinks: < 20mA (0-10 VDC LED Drivers / Ballasts

## **ENVIRONMENTAL SPECS**

OPERATING TEMP: -40° to 160° F (-40° to 71° C) IP66 RATED SILICONE FREE ROHS COMPLIANT

## OVERVIEW

The **SBOR xx OEX** Series outdoor rated sensor incorporates Passive Infrared (PIR) technology into a line voltage motion sensor. Designed to mount directly through a 1/2" knockout (7/8" hole) in a light fixture or pole, the **SBOR xx OEX** utilizes 100% Digital Passive Infrared (PIR) technology that is tuned for walking size motion while preventing false tripping from the environment. The unit's optional integrated photocell enables additional energy savings during daytime periods when there is sufficient daylight.

#### **SENSOR OPERATION**

The sensor detects changes in the infrared energy given off by occupants as they move within the field-of-view. When motion 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. The sensor has special outdoor PIR detection settings (**OEX**). These settings ensure that environmental factors, such as wind, do not cause false ons.



# **OPTIONS**

#### OCCUPANCY CONTROLLED DIMMING (D)

- Provides dimming output to control 0-10 VDC dimmable ballasts
- Provides a second occupancy timeout period that enables the lights to go to a dim setting before turning off (unless minimum dim setting ordered)
- Adjustable max/min dim setting
- Adds two 20 AWG wires

#### **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 cannot turn lights off

#### HVOLT (347- 480 VAC)

- Allows sensor to be powered by and switch 347-480 VAC\*
- \*Safety Note: only one line phase is being switched



CSA LISTED ASSEMBLED in U.S.A. 5 YEAR WARRANTY

# ORDERING INFO SBOR [MOUNTING HEIGHT] OEX [DIMMING / PHOTOCELL] [VOLTAGE] [COLOR] [MIN DIM LEVEL\*]

#### MOUNTING HEIGHT

**10** = Low Mount (8-15 ft) **6** = High Mount (15-30 ft) Blank = None D = Occ. Controlled High/ Low Dimming P = Photocell

**DIMMING / PHOTOCELL (CHOOSE 1)\*** 

Blank = 120-277 VAC (MVOLT) HVOLT = 347-480 VAC

VOI TAGE

## WH = White BK = Black BZ = Dark Bronze

COLOR

Blank = 0VDC 3V = 3 VDC 1V = 1 VDC 4V = 4 VDC 2V = 2 VDC 5V = 5 VDC

MIN DIM LEVEL\*\*

\*Dimming & Photocell not available together in this model family, see **SBOR xx ODP** datasheet for alternate solution

\*\*Required for D option

# **COVERAGE PATTERN**

1.31 94

15.5 4.8

0 m 0 ft

4.8 15.5

#### **PARKING GARAGE / LOW MOUNT APPLICATIONS**

In general, the SBOR 10 OEX is recommended for 8-15 ft mounting and provides a coverage area radius for walking motion of greater than 2x the mounting height. The SBOR 10 OEX is ideal for parking garage and low pole mount applications. When mounted 10 ft high, for example, on a luminaire in a parking garage, the sensor's coverage for walking motion extends out 30 ft in a 360° pattern. This closely matches the lighting distribution of a typical parking garage luminaire. When mounted to a light pole, for example, in a parking lot or along a path, the sensor provides 270° of coverage (90° is blocked by the pole).

23

0 m

23 4.8 7

3

94

7 4.8



Typical 30'x30' spacing of parking garage luminaires

#### SITE & AREA LIGHTING / HIGH MOUNT APPLICATIONS

The SBOR 6 OEX is intended for higher pole mount applications, between 15-30 ft, and provides a coverage area radius for walking motion of 15-20 ft. When mounted to a pole the sensor provides 270° of coverage (90° is blocked by the pole).



TOP VIEW

94

Coverage Pattern of High Mount Lens Option (SBOR 6 OEX)

## WIRING

#### WIRING TO SINGLE PHASE POWER (120/277/347 VAC)

BLACK\* - 120/277 VAC Input (RED wire for 347 VAC - requires HVOLT option) - Switched Line Voltage Output to Luminaire **BLACK\*** (RED wire for 347 VAC - requires HVOLT option) WHITE - Neutral VIOLET (w/ D option) - Low Voltage Dim Output (0-10 VDC) GRAY (w/ D option) - Low Voltage Common

#### WIRING TO 2-PHASE POWER (208/240/480 VAC)\*

BLACK\* - 208/240 VAC Phase A Input (RED wire for 480 VAC - requires HVOLT option)

- **BLACK\*** - Switched Line Voltage Output to Luminaire
- (RED wire for 480 VAC requires HVOLT option)
- Phase B of 208/240/480 VAC Input WHITE
- VIOLET (w/ D option) Low Voltage Dim Output (0-10 VDC) GRAY (w/ D option) - Low Voltage Common

\*Safety Note: only one line phase is being switched

# INSTALLATION

- Sensor has a 1/2" chase nipple that enables mounting through a knockout/hole in a junction box, fixture, or pole
- When mounting to a pole, a 7/8" unthreaded hole should be located 12" below luminaire and should be accessible via an adjacent or opposite side hand hole
- · If the sensor loses power, the internal relay will latch closed and the dimming output will allow lights to return to full bright.

#### PROGRAMMING

Refer to instruction card IC7.002 for default settings and directions on programming the sensor via the push-button. WARNING

#### Fire Hazard Caution: Maximum Lamps 1500 Watts, Type 347 VAC.

Attention: Risque d'incendie : Pauissance Maximales Des Lampes 1500 Watts, Type 347 VAC.

Warning: The units are intended to be installed by a qualified person with properly rated branch circuit protectors as per applicable local and national regulations (CEC, NEC).



WARRANTY: Sensor Switch warrants these products to be free of defects in manufacture and workmanship for a period of 60 months. Sensor Switch, 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 be liable for any incidental or consequential property damages or losses.

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#### \*BLACK wires can be reversed



\*BLACK wires can be reversed