

## TECHNICAL DATA

### TYPICAL APPLICATIONS

- High Bay Aisle Way
- HID Bi-Level
- T-5 & T-8 Fluorescent

### SENSOR HIGHLIGHTS

- Patented High Bay Sensor Design
- Up to 45 Foot Mounting
- 110 Foot Coverage
- Self-Contained Relay
- No Minimum Load Requirements

### FEATURES

- Time Delay: 30 sec. to 20 minutes  
Selectable in 2.5 min increments
- Start-to-High Timer: 0 to 20 minutes
- Optional 100 Hr Burn-in timer
- Green LED Indicator

### SPECIFICATIONS

- Size: 3 5/8" x 3 5/8" x 1 1/2" Deep
- Sensor Weight: 6 Ounces
- Sensor Color: White
- Mounting: J-Box 1/2 inch knockout
- Relative Humidity: 20 to 90%  
non-condensing
- Operating Temp: 14° to 160° F
- Storage Temp: -14° to 160° F
- 120 VAC @ 800 W
- 277 VAC @ 1200 W
- 347 VAC @ 1500 W
- 1/4 HP Motor Load
- Frequency: 60 Hz
- UL and CUL Listed
- 5 Year Warranty
- Made in U.S.A.

### LOW TEMP/HI HUMIDITY(-LT)

- Conformally Coated PCB
- Operates down to -40° F
- Corrosion resistant from moisture

## HMRB-10 SERIES

### Programmable Edition!

### NEW - 100 Hour Burn-in for HID

Line Voltage High Bay Aisle Way control has been made easier with the New *HMRB-10* High Mount Sensor. When mounting 30 to 45 feet high, the *HMRB-10* easily installs to a standard junction box using its half inch molded chase nipple. Using an internal line voltage relay, the *HMRB-10-SH* controls HID Bi-Level fixtures using Class 1 wiring means, whereas the *HMRB-10* controls fluorescent fixtures directly without the need of a Power Pack. For freezer applications, use the *HMRB-10-LT* or *HMRB-10-SH-LT* for cold temperature and corrosion resistant characteristics. If individual fixture control is desired, refer to CMR-6 & CMR-6 Series sensors.



### SENSOR OPERATIONS

The *HMRB-10* detects changes in the Infrared energy given off by occupants as they move within the sensor's field-of-view. The Sensor operates on 120/277 or 347 VAC. An internal power relay switches the incoming voltage to power "On" HID Bi-Level lamps to "High", or directly powers fluorescent lamps to "On". An internal timer keeps the relay closed during periods of no activity. Once the time delay expires, the relay opens and the HID lamps go to a "Low" state, or if fluorescent, the lamps turn "Off".

### HID BI-LEVEL FIXTURES (HMRB-10-SH)

The HID Bi-Level fixture must be controlled by line voltage, and provide it's own interposing relay for switching the capacitor in the ballast from "High" to "Low". The "Start to High" timer must be used. This is a warm-up period for HID lighting loads. It is adjustable from zero to 20 minutes. The sensor also offers a 100 hour burn-in timer. Once engaged, the sensor goes to an "On" state for the next 100 hours. If power is interrupted, the sensor will continue with 100 hour countdown when power is restored. Once expired, this feature is automatically removed unless engaged again. During this STH or 100 Hr burn in, the LED flashes continuously indicating sensor is in override "On". This feature allows the HID lamps to "burn-in" and reach full color and light output. If the lamp is replaced, it is suggested to engage this feature.

### FLUORESCENT FIXTURES

The *HMRB-10* sensor does not include the Start to High timer, or the 100 Hour Burn-in since these features are used for HID only.

### PASSIVE INFRARED DETECTION TECHNOLOGY

The *HMRB-10* has 4 pairs of PIR collector beams evenly spaced. Motions are detected as occupants cross into or out of these beams. PIR detects motions across the beams much better than motions directly into the beams. Because of this, care must be taken to make sure the sensor is not viewing out the end of the aisles where traffic provides strong detection signals as opposed to occupants entering directly at the sensor. **Providing sensors at both ends and ensuring the opposite sensors do not view out will provide proper performance.** For aisles longer than 200 feet, multiple sensors must be located at appropriate distances in the center area. For example, a 270 foot aisle, locate one *HMRB-10* at each end, and one CMR-50 in the center.

### Part Numbering System: HMRB-10-[START-TO-HIGH]-[VOLTAGE]-[TEMP/HUMIDITY]

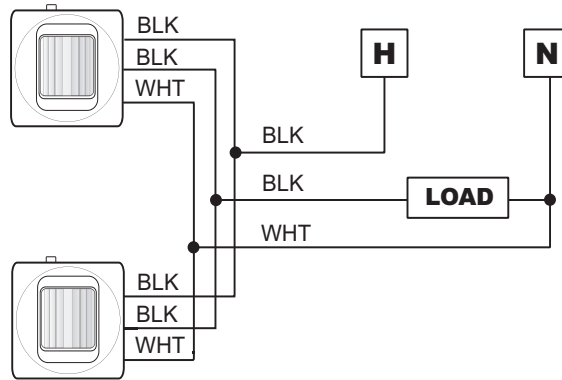
MODEL#	START-TO-HIGH	VOLTAGE	LO TEMP/HI HUMIDITY
HMRB-10	Blank = No Start to High Timer -SH = Start to High Timer & 100 HR Burn-in	Blank = 120-277 VAC -3 = 347 VAC	Blank = 14° to 160° F -LT = -40° to 160° F

**TYPICAL WIRING DIAGRAM (DO NOT WIRE HOT)**

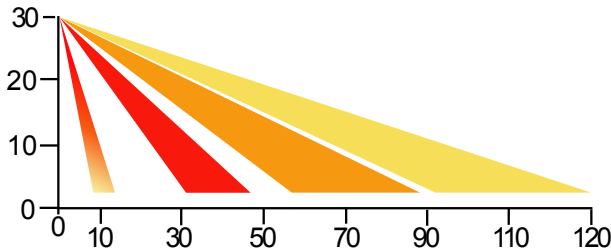
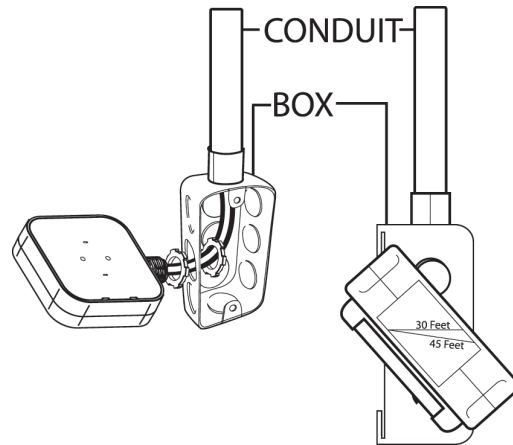
The sensor offers the patented "either or wiring": Black to Hot and Black to Load. The White wire connects to neutral. For multiple sensor applications, simply wire sensors in parallel, however the maximum load ratings stay the same. **Note:** Black wires are replaced with Red wires for 347 VAC.

**INITIAL POWER UP**

When power is applied to the sensor, the relay is designed to be in a latched closed position, and the lights should come "On". After a 1-3 minute warm-up period, the sensor becomes functional and begins to "time out". In the case of "-SH" units, the STH 20 minute timer takes effect. **Lights Do Not Immediately Turn "On" (Initial Installation Only):** If the latching relay is in the open position, the lights will not immediately turn "On". However, within the 1-3 minute warm-up, the sensor will correct itself and close the relay.

**TYPICAL WIRING DIAGRAM - DO NOT WIRE HOT**

**MOUNTING CONSIDERATIONS**

The *HMRB-10* Sensor mounted at a 30 foot height and back out of the aisle way 10 feet, will cover approximately 110 linear feet. The sensor must be mounted in such a way as to be tilted forward approximately 40 degrees at 30 feet to achieve maximum coverage. At lower heights, or shorter desired coverage, the sensor tilt angle should be increased. Simply follow the guides on the side of the unit to set ideal tilt angles.

**TOP VIEW**

**SIDE VIEW**


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

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