

TECHNICAL DATA

TYPICAL APPLICATIONS

- HID Bi-Level
- Individual T-5 or T-8 Fixtures
- High Bay Aisle Way Sensing

SENSOR HIGHLIGHTS

- Up to 45' Mtg, 50° Coverage
- Aisle Way Sensing Pattern
- Self-Contained Relay
- No Minimum Load Requirements

FEATURES

- Time Delay: 30 sec. to 20 minutes
- Optional Start-to-High Timer:
0 to 20 minutes
- Green LED Indicator

SPECIFICATIONS

- Sensor Color: White
- Sensor Weight: 7 Ounces
- Mounting: Single Gang Handy Box
- 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: 50/60 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

HMR-50 Series



HMR-50
Fluorescent



HMR-50-SH
HID Bi-Level

High Bay Aisle way sensing from 70 to 110 feet when mounted 30 to 45 feet is provided in this bi-directional sensor. The *HMR-50-SH*'s internal line voltage relay controls HID Bi-Level fixtures using Class 1 wiring means, or controls fluorescents (*HMR-50*) independently by mounting on the end of each fixture without the need of a power pack. The *HMR-50-SH* controls Bi-Level HID with a Start to High ("STH") timer, whereas the *HMR-50* is simpler and controls individual fluorescent fixtures. The view pattern provides typical coverage of up to 3 High Bay fixtures. When controlling each fixture, lighting on both sides of the occupancy area is provided. Some "Program Start Ballasts" have such a delay, that when traveling in a fork-lift truck, lighting ahead needs to be initiated to "On" allowing proper performance. Masking of the sensor for "End of Aisle" cut-off is easily done with the enclosed kit. For freezer or high humidity applications, use the *HMR-50-LT* or *HMR-50-SH-LT* which allows for cold temperatures or condensing humidity. For total aisle way sensing consider the HMR-10 at each end, and *HMR-50*'s in the center section.

SENSOR OPERATIONS

The *HMR-50* detects changes in the Infrared energy given off by occupants as they move within the sensor's field-of-view. An internal timer, factory set at 10 minutes, keeps the lights "On" during brief periods of no activity. This state-of-the-art design allows the sensor to adapt to its environment, eliminating the need for manual field adjustments.

HID BI-LEVEL FIXTURES (HMR-50-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 ("STH") timer must be used. This is a warm-up period for HID lighting loads. It is adjustable from zero to 20 minutes. This sensor also offers override switches on the front of the unit. With the right switch in the down position, the sensor is in the ON mode. This is used for the initial burn time on the HID lamps. With the left switch in the down position; the sensor is in the OFF mode. With both switches in the up position the sensor is in the AUTO mode. With both switches in the down position, the sensor remains in the OFF mode because OFF overrides ON.

FLUORESCENT FIXTURES

The *HMR-50* sensor does not include the Start to High timer, or both override switches since these features are used for HID only.

PASSIVE INFRARED DETECTION TECHNOLOGY

The *HMR-50* views in both directions, however PIR detects occupants crossing the beams better than walking directly at the beams. At the end of the Aisle, half of the sensor should be masked (see masking kit) and mounted right at the entrance, or HMR-10 sensors should be used. Attempting to use one *HMR-50* in the center of an aisle to detect exactly at opposing entrances can be done, but is not advised or practical.

Part Numbering System: HMR-50-[START-TO-HIGH]-[TEMP/HUMIDITY]

MODEL #	START-TO-HIGH	VOLTAGE	LO TEMP/HI HUMIDITY
HMR-50	Blank = No Start to High Timer -SH = Start to High Timer & Override Switches	Blank = 120-277 VAC -3 = 347 VAC	Blank = 14° to 160° F -LT = -40° to 160° F

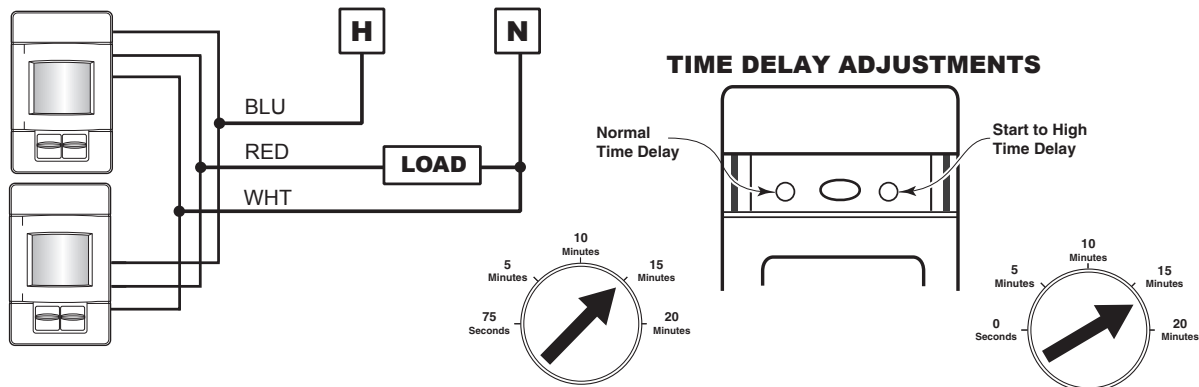
TYPICAL WIRING DIAGRAM (DO NOT WIRE HOT)

The Blue wire connects to the Hot feed (120 thru 347 VAC), the White wire connects to Neutral, and the Red wire connects to the Load. For multiple sensor applications, wire sensors in parallel as shown.

INITIAL POWER UP

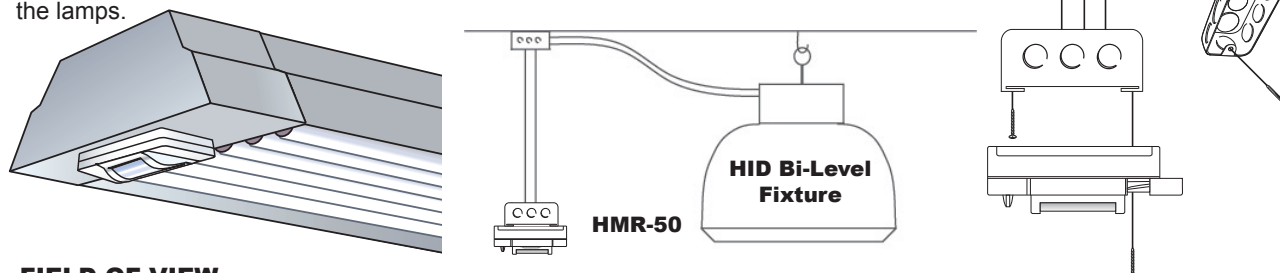
When power is first applied to the sensor, the lights should come "On". After 1-3 minutes the sensor stabilizes and begins to time out. **Lights Stay Off.** If the lights do not come "On", wait 1-3 minutes (or until green LED is flashing visibly), disconnect power, then re-apply power. Or, wait for sensor to warm up, cover sensor and allow it to time out and reset itself, including the STH Timer up to 20 minutes. The sensor uses a latching relay that latches closed when power is turned off to the sensor. During normal operations, this will bring the sensor to an "On" condition upon reapplying power. However, in shipping this relay can unlatch and be open during installation. Follow above to allow the relay to reset and latch closed.

TYPICAL WIRING DIAGRAM - DO NOT WIRE HOT



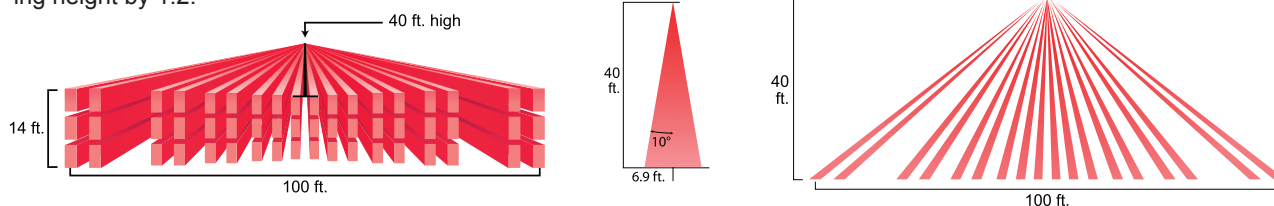
MOUNTING CONSIDERATIONS FOR HMR-50

The HMR-50 surface mounts to either a junction box or mounting plate at the end of the fixture. The spacing for the mounting screws are the same as a regular wiring device (i.e., toggle switch, receptacle). As shown, the sensor views in the linear plane as the lamps. To view 90° opposite of the lamp direction, the sensor must be installed lengthwise with the lamps.



FIELD OF VIEW

These sensors view 50° side to side, and 10° wide. The sensor is designed to mount up to 45 feet. A typical mounting of 40 feet provides a distance of 100 linear feet, 50 feet in each direction. The sensor will view slightly farther left or right than the mounting height. The masking kit enclosed may be used to limit the view in either direction. The view pattern shown is for "walking motions" only. **Note:** To determine the approximate distance in each direction, multiply the mounting height by 1.2.



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.

sensor switch

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revised 03/10/2005
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