

HIGH BAY PASSIVE INFRARED OCCUPANCY SENSORS

HB3X0-LX SERIES

Integrated occupancy
sensor and lens device



Easy mounting with snap-in
mounting hardware

Lens choices for mounting
between 20-40 feet



Line or low voltage

DESCRIPTION

The HB3x0B-Lx PIR occupancy sensors are designed for automatic lighting control in warehouses and other indoor high bay spaces. They are modular and are made up of two parts, a Power Module (HB3x0-B) and a Lens (HBLx), sold separately or in prepackaged combinations. The lenses are specifically engineered to provide reliable coverage from a wide range of mounting heights.

OPERATION

The HB3x0B-Lx series occupancy sensor is designed to mount directly to an industrial T5 or T8 light fixture and control the load in the fixture. It can be wired to control all ballasts in the fixture, or to control half of the ballasts to provide high/low lighting control. When motion is detected within the sensor's coverage area, the relay in the sensor closes, and lighting loads are automatically turned on. When motion is no longer detected for the duration of the time delay setting, the relay opens and the lighting load is turned off. The sensor's sensitivity and time delay settings are factory preset at "normal" and 15 minutes, respectively, which are suitable for most high bay applications.

DIFFERENT COVERAGE PATTERNS

The HB3x0B-Lx sensor is a one-piece, self-contained line voltage unit with a 1/2" threaded nipple for attaching to junction boxes and conduit hubs, and to the end of fixtures. Three lens choices are available, to provide coverage for different applications, facilitating sensor use at various mounting heights and locations. Sensitivity and time delay adjustments are set using DIP switches located behind the lens.

APPLICATIONS

The high bay occupancy sensor is an innovative product engineered specifically for indoor locations. The product is ideal for a range of high bay applications, such as warehouses, distribution centers, gymnasiums, and other high bay indoor spaces. An optional HB Extender Module provides additional mounting flexibility.

FEATURES

- LED indicator of occupancy detection for easy verification of coverage
- Easy front access to DIP switches for time and sensitivity adjustments
- Easy mounting using knockout at end of fluorescent high bay luminaire
- Hardware choices for adjustability or static mount
- Multi-cell, multi-tier Fresnel lenses
- Durable materials for optimal performance in challenging indoor high bay settings
- Asymmetric and 360° coverage lens choices
- Zero crossing circuitry reduces stress on relay and extends sensor life
- Detection signature analysis eliminates false triggers; provides immunity to RFI and EMI
- ASIC technology reduces components and enhances reliability
- Pulse Count Processing eliminates false offs without reducing sensitivity
- Recyclable

PROJECT

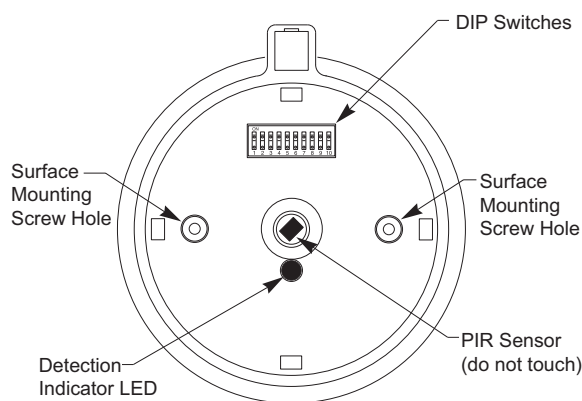
LOCATION/
TYPE

SPECIFICATIONS

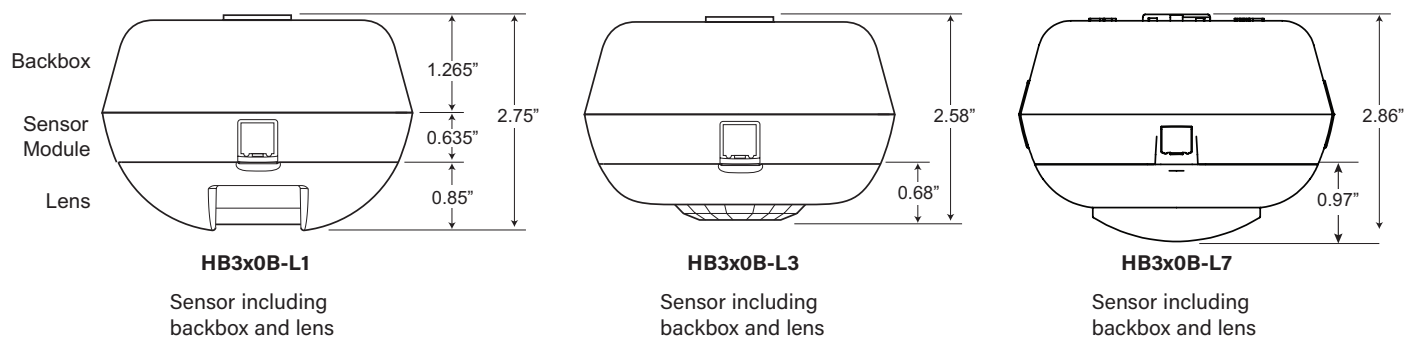
- **HB300-B:**
 - 11mA @ 24 VDC, Requires Power Pack
 - See Power Pack details for Load Ratings
- **HB330-B:**
 - 5 AMP Ballast, @ 208/240 VAC
- **HB340-B:**
 - 5 AMP Ballast, @ 347/480 VAC
- Adjustable time delay (15 seconds - 30 minutes; factory preset at 15 minutes)
- Operating conditions: Temperature 32-158°F (0-70°C); Humidity 20-90%, non-condensing
- Indoor use only
- Materials: ABS, flame retardant, UV resistant, impact resistant
- Five year warranty
- UL and cUL listed

SENSOR COMPONENTS & DIMENSIONS

Sensor Controls

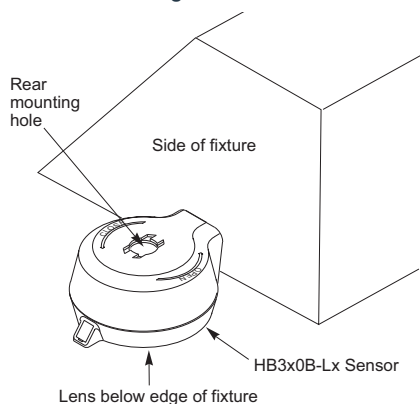


Dimensions



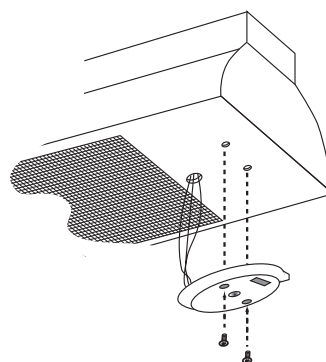
MOUNTING & INSTALLATION

Direct Mounting to Fixture



The sensor should be positioned below the fixture edge and away from fluorescent lamps so that lamp heat does not affect the sensor.

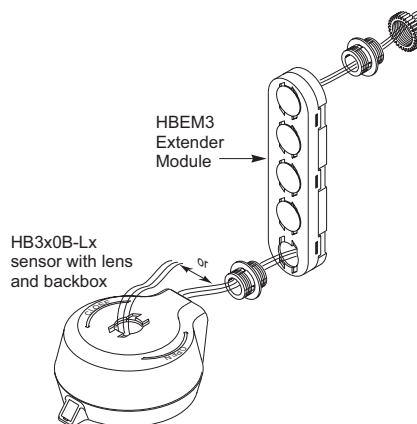
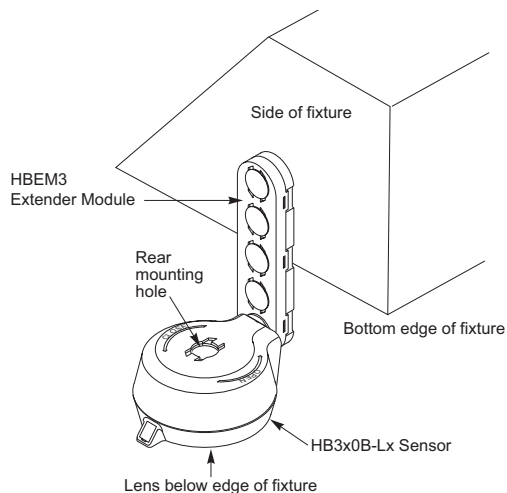
Surface Mount



HB340 has no back box, for surface mounting to bottom of fixture. Back box can also be removed from other models

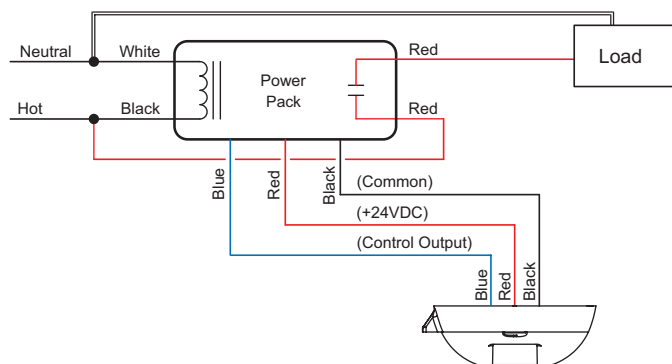
MOUNTING & INSTALLATION CONTINUED

Mounting Using the Extender Module

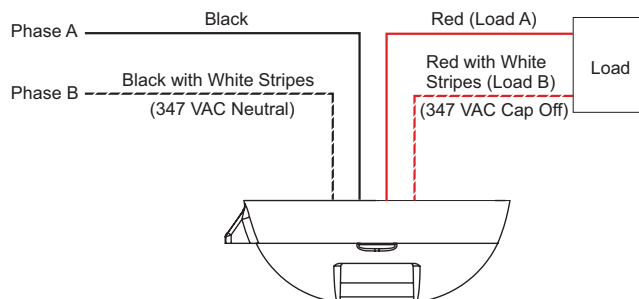


WIRING & CONNECTIONS

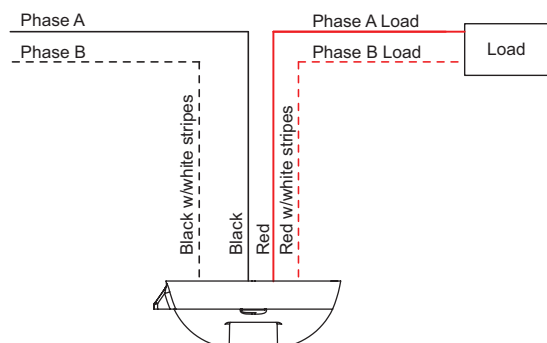
HB300B-Lx wiring



HB340B-Lx wiring

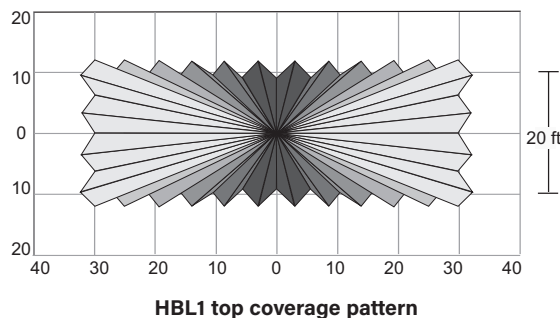
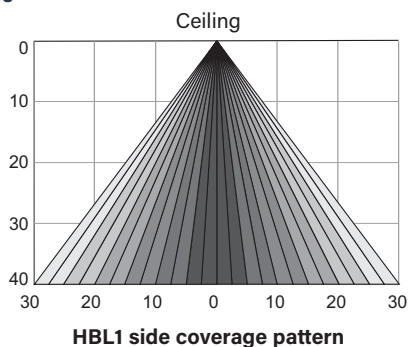


HB330B-Lx wiring

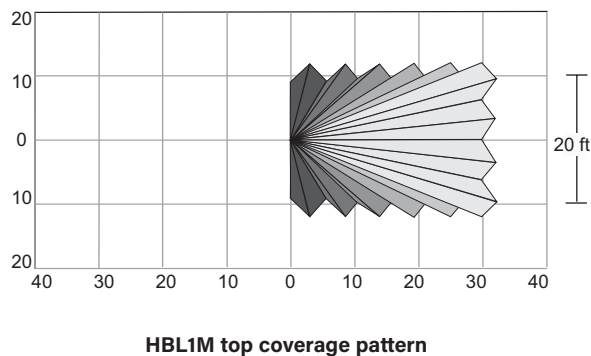
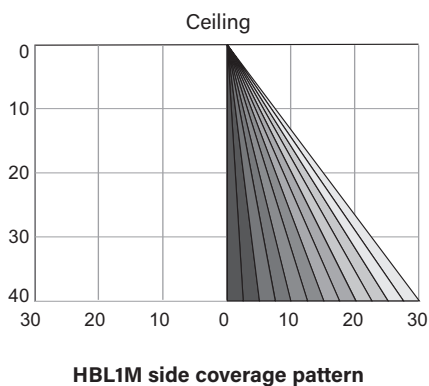


COVERAGE

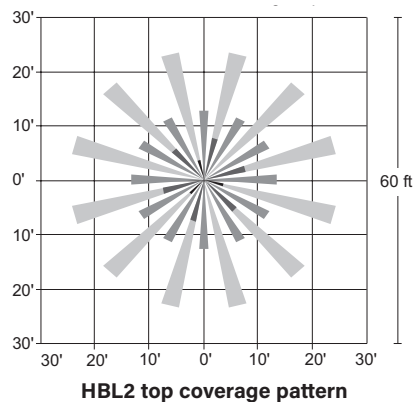
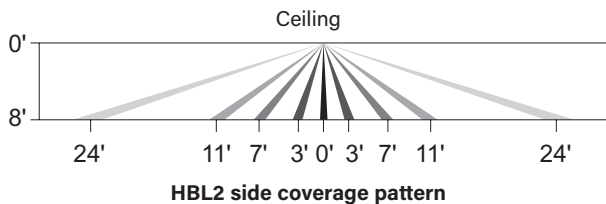
Lens Choices



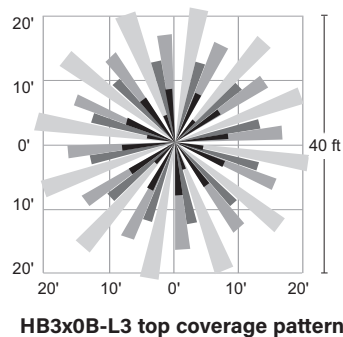
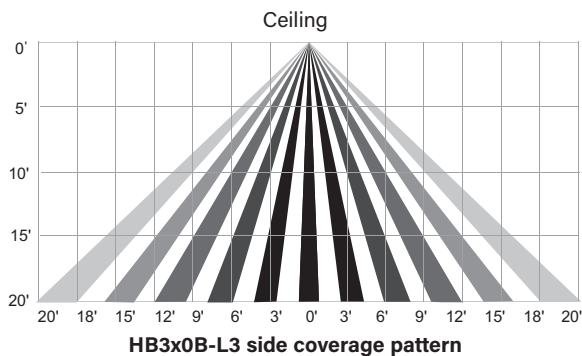
The HBL1 is designed to detect walking motion when mounted at 40' above the floor. When mounted at 40', in optimal conditions, the lens has a 60' linear detection range.



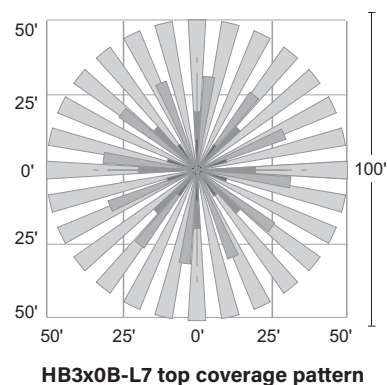
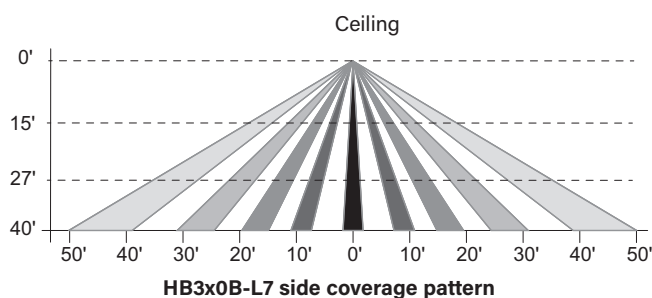
Identical to the HBL1, the HBL1M comes with opaque adhesive tape applied to the interior of the lens, cutting off 1/2 of the coverage pattern. This customized coverage is ideal for the beginning of aisle ways where cross traffic could be an issue.



For low bay applications, the HBL2 pattern spreads over a 48' diameter area at a height of 8'.



For mid bay applications, the HBL3 pattern spreads over a 40' diameter area at a height of 20'.



For high bay applications, the HBL7 is designed for mounting at heights between 20' to 40', with a coverage area up to 100' in diameter when mounted at 40'.

ORDERING INFORMATION

Catalog #	Description	Voltage	Coverage Area
☐ HB300-B	High Bay Low Voltage Occupancy Sensor w/ Backbox	11mA @ 24VDC*	
☐ HB330-B	High Bay Line Voltage Occupancy Sensor w/ Backbox	208/240 VAC	
☐ HB340	High Bay Line Voltage Occupancy Sensor, no Backbox (for surface mount)	347/480 VAC	
☐ HB340-B	High Bay Line Voltage Occupancy Sensor w/ Backbox	347/480 VAC	
☐ HBL1	Lens for HB3x0 sensors		Coverage @ 40' height: 60' x 20'
☐ HBL1M	Lens for HB3x0 sensors		Coverage @ 40' height: 30' x 20'
☐ HBL2	Lens for HB3x0 sensors		Coverage @ 8' height: 48" in diameter
☐ HBL3	Lens for HB3x0 sensors		Coverage @ 20' height: 40' in diameter
☐ HBL7	Lens for HB3x0 sensors		Coverage @ 40' height: 100' in diameter
☐ HBEM3	High Bay Extender Module		
☐ HBAA-1	HB Angle Fitting		
☐ BZ-50	Power Pack Note: BZ-150, BZ-200, or BZ-250 may also be used	120/277 VAC, 230/240 VAC (Single Phase), 50/60Hz	20 A ballast and tungsten or 1 hp motor
Prepackaged Sensor/Lens Combinations			
☐ HB300B-L1	High Bay Low Voltage Occupancy Sensor w/ Lens & Backbox	11mA @ 24VDC*	Coverage @ 40' height: 60' x 20'
☐ HB300B-L3	High Bay Low Voltage Occupancy Sensor w/ Lens & Backbox	11mA @ 24VDC*	Coverage @ 20' height: 40' in diameter
☐ HB300B-L7	High Bay Low Voltage Occupancy Sensor w/ Lens & Backbox	11mA @ 24VDC*	Coverage @ 40' height: 100' in diameter
☐ HB340B-L1	High Bay Line Voltage Occupancy Sensor w/ Lens & Backbox	347/480 VAC	Coverage @ 40' height: 60' x 20'
☐ HB340B-L3	High Bay Line Voltage Occupancy Sensor w/ Lens & Backbox	347/480 VAC	Coverage @ 20' height: 40' in diameter
☐ HB340B-L7	High Bay Line Voltage Occupancy Sensor w/ Lens & Backbox	347/480 VAC	Coverage @ 40' height: 100' in diameter

All sensors are white.

* HB300 Low voltage models require a BZ series power pack.

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