



## High Bay Occupancy Sensors and Controllers

### HBA WASP™ — Fluorescent High Bay Occupancy Sensor

#### KEY FEATURES

- Digital passive infrared (PIR) sensor
- Low-profile design
- Multiple (single and dual) output versions
- Unique Smart Cycling™ for improved lamp life
- Single and dual timer operation
- Zero Arc Point Switching
- Supports mounting heights up to 45 ft.
- Photosensor version available for daylight harvesting
- Low-voltage and line-voltage (120/277/347VAC, 208/240VAC, 480VAC) versions available
- Low-temperature (-40°C) versions available
- Certified to UL916 standards
- 5-year warranty



#### OVERVIEW

The HBA WASP Fluorescent High Bay Occupancy Sensor provides the most advanced and accurate passive infrared (PIR) sensor technology for unequalled occupancy detection and false trip immunity. It is specifically designed for ON/OFF control of high bay fluorescent fixtures in warehouses, distribution centers, and similar facilities. The sensor easily mounts directly to industrial T5HO and T8 fixtures through an extended ½-inch chase nipple. The specially designed PIR lens provides 1.4:1 coverage up to 30 feet and 1.1:1 coverage at 45 feet. For deep body fluorescent fixtures, an extension adapter is also available for positioning the sensor flush or below the bottom of the reflector for full field of view coverage.

This sensor is available with either single or dual outputs, making it the perfect solution for single or multiple-ballast fixtures. The single output sensor features a primary timer for ON/OFF control for maximum energy savings. The dual output sensor features two timers for multiple light level control (i.e. step dimming). The dual output sensor also includes Smart Cycling technology which maximizes lamp and ballast life by ensuring that all lamps receive the same number of switching cycles. A built-in photosensor is also available for automatic daylight harvesting.

#### FEATURES and BENEFITS

##### Features

Multiple (single and dual) output versions

Smart Cycling

Single and dual timer operation

Zero Arc Point Switching (Patent #5,821,642)

Optional Built-in Photosensor

##### Benefits

- Provides control of single- or multiple-ballast fixtures
- Maximizes lamp and ballast life in multiple-ballast fixtures by ensuring that all lamps receive the same number of switching cycles
- Provides multiple light-level control
- Enables step dimming
- Minimizes relay-contact wear from high inrush loads
- Increases energy savings by turning off lights when there is sufficient natural light

#### APPLICATIONS

- Warehouses
- Distribution centers

## SPECIFICATIONS

|  |   |
|--|---|
| User interface                               | <ul style="list-style-type: none"> <li>• 2 four-pin dip switches (standard version)</li> <li>• 3 four-pin dip switches (photosensor version)</li> </ul>   |
| Timer timeouts                               | <ul style="list-style-type: none"> <li>• Primary: <ul style="list-style-type: none"> <li>- 8-second test mode</li> <li>- 4, 8, 16, and 30 minute timeouts</li> </ul> </li> <li>• Secondary: <ul style="list-style-type: none"> <li>- Can be disabled</li> <li>- 30, 60, and 90 minute timeouts</li> </ul> </li> </ul> |
| Passive infrared                             | <ul style="list-style-type: none"> <li>• Dual element pyrometer and spherical Fresnel lens designed for robust detection of a walking person.*</li> </ul>   |
| Photosensor Range (Photosensor version only) | <ul style="list-style-type: none"> <li>• 50-3000FC</li> </ul>   |
| Coverage                                     | <ul style="list-style-type: none"> <li>• 360° (includes masking kit for aisle and end-of-aisle applications)</li> <li>• Lens: 1.4:1 coverage up to 30ft., 1.1:1 coverage up to 45ft.</li> </ul>   |
| Load ratings (line voltage units)            | <ul style="list-style-type: none"> <li>• 120VAC: 0–800W ballast or tungsten</li> <li>• 277VAC: 0–1,200W ballast</li> <li>• 347VAC: 0–1,500W ballast</li> <li>• 208/240VAC: 0–1200W ballast</li> <li>• 480VAC: 0–2400W ballast</li> <li>• ¼-HP motor load @ 120V, 1/6-HP@347V</li> </ul>                               |
| Power requirements                           | <ul style="list-style-type: none"> <li>• Line voltage units: 120/277/347V, 208/240V, 480V, 60 Hz</li> </ul>   |
| Operating environment                        | <ul style="list-style-type: none"> <li>• Indoor use only</li> <li>• Operating temperature (standard version): 32°–149° F (0°–65° C)</li> <li>• Operating temperature (low temperature version): -40°–149° F (-40°–65° C)</li> <li>• Relative humidity (non-condensing): 0%–95%</li> </ul>                             |
| Construction                                 | <ul style="list-style-type: none"> <li>• Casing—high-impact injection-molded plastic</li> </ul>   |
| Size and weight                              | <ul style="list-style-type: none"> <li>• Size: 4.4”L x 3.6”W x 2.0”D; Weight: 7 oz.</li> </ul>  |
| Mounting                                     | <ul style="list-style-type: none"> <li>• Mounts directly to the end of a fixture through an extended ½” chase nipple</li> <li>• For deeper body fixtures, an optional Extender Adapter (available separately) positions the sensor flush or below the bottom of the reflector for a full field of view.</li> </ul>    |
| Certifications                               | <ul style="list-style-type: none"> <li>• Conforms to UL STD 916, Certified to CAN/USA STD 22.2 No. 61010-1-04</li> </ul>  |
| Warranty                                     | <ul style="list-style-type: none"> <li>• 5 years</li> </ul> <p>*When used with program start ballast, a 1-2 second delay from occupancy detection to lamp turn-on may be experienced.</p>   |

## HOW TO ORDER

|  |             |   |   |  |
|--|-------------|---|---|--|
| [ ]  | 14          | [ ]   | [ ]   | [ ]  |
| <b>MODEL</b>   | <b>LENS</b> | <b>Control Outputs</b>  | <b>Photosensor</b>                                | <b>Input Voltage</b>   |
| <b>FHB</b> Standard Version<br><b>FHBLT</b> Low Temp Version | 1.4 Lens    | <b>0</b> Low Voltage <sup>1</sup><br><b>1 1</b> Output<br><b>2 2</b> Outputs <sup>2</sup> | <b>NP</b> No Photosensor<br><b>PS</b> Photosensor | <b>24V</b> Low Voltage <sup>1</sup><br><b>UNV</b> 120/277/347VAC<br><b>208</b> 208/240VAC<br><b>480</b> 480VAC |

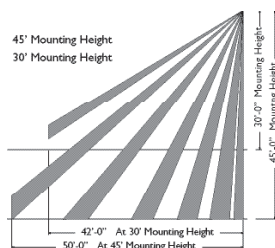
### Accessories

FHBADAPTOR - HBA Wasp Fluorescent High Bay Mounting Extension Adaptor  
 FHBMASKKIT - HBA Wasp Fluorescent High Bay Sensor Masking Kit - 10 pack

<sup>1</sup> Low Voltage option available only with 24V input voltage. UVPP or MP Series Power Pack required.

<sup>2</sup> Output option available only with UNV input voltage.

### Range Diagram



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