

H-MOSS|MAXX™ Occupancy Sensors

OPTIMYZER® IP65 Watertight High Bay Occupancy Sensor

HUBBELL®
Wiring Device-Kellems

The **H-MOSS® Watertight OPTIMYZER® High Bay Occupancy Sensor** utilizes highly advanced and accurate passive infrared (PIR) sensor technology for long range occupancy detection and enhanced false trip immunity. It is IP65 watertight and rated for outdoor use. It provides ON/OFF control of high bay fluorescent, LED and induction fixtures in food processing, outdoor, cold storage and similar applications.

The sensor easily mounts directly to industrial T5, 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 to 45 feet. For deep body 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. Optional lenses provide 180°, aisle and end-of-aisle coverage in addition to the supplied 360° area coverage lens.

This sensor is available with either single or dual relays, making it the perfect solution for single or multiple-ballast fixtures. The single relay sensor features a primary timer for ON/OFF control for maximum energy savings. The dual relay sensor features two timers for multiple light level control (i.e. step dimming). The dual relay sensor also includes Smart Cycling technology which maximizes lamp and ballast life by ensuring that all lamps receive the same operating hours. Two built-in photosensors provide selectable upward and downward reading for automatic daylight harvesting.



Key Features

- Digital passive infrared (PIR) sensor
- IP65 watertight and outdoor rated
- Assembled in USA*
- Multiple (single and dual) relay versions
- Unique Smart Cycling for improved lamp life
- Single and dual timer operation
- Zero Arc Point Switching
- Supports mounting heights up to 45 feet
- Supplied with 360° lens; aisle, end-of-aisle and 180° lenses available separately
- Two photocells for daylight harvesting
- Low operating temperature (-40°C)
- UL and cUL listed
- 5-year limited warranty

Features and Benefits

Features	Benefits
Multiple (Single and Dual) Relay Versions	Provides control of single or multiple-ballast fixtures
Smart Cycling	Maximizes lamp and ballast life in multiple-ballast fixtures by ensuring that all lamps receive the same operating hours.
Single and Dual Timer Operation	Dual relays and timers provide multiple light-level control Enables step dimming
Zero Arc Point Switching (patent #5,821,642)	Minimizes relay-contact wear from high inrush loads
Two Built-In Photosensors	Increases energy savings by turning off lights when there is sufficient natural light

Applications

Florescent, LED and Induction High Bay Applications, such as:	Food processing, vehicle maintenance, cold storage, outdoor lighting, swimming pools
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* Many of these products are Assembled in USA, and many are Buy American Compliant. Please contact Hubbell with any certification requirements.



H-MOSS|MAXX™ Occupancy Sensors

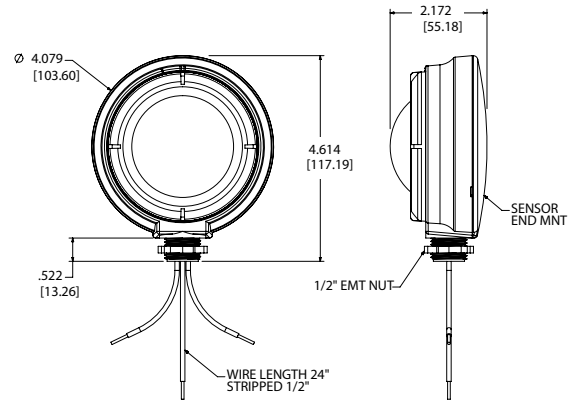
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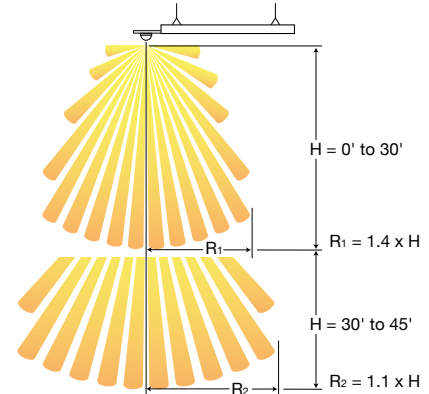
Watertight OPTIMYZER® Ordering Information



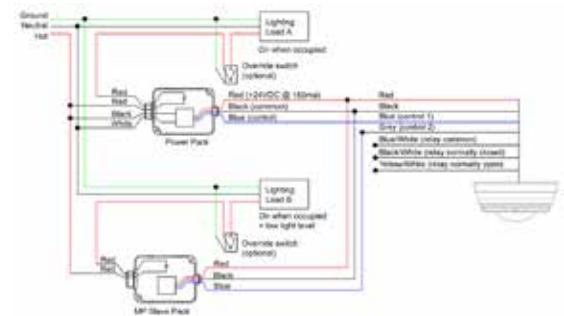
Dimensions in Inches (mm)



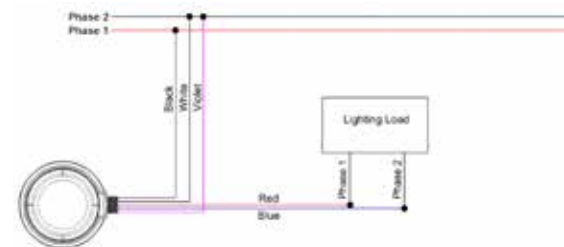
Coverage Pattern



Wiring Diagrams



Low voltage sensor



208/240VAC and 480VAC line voltage

IP65 Watertight, Low Temperature (-40°F, -40°C Min)

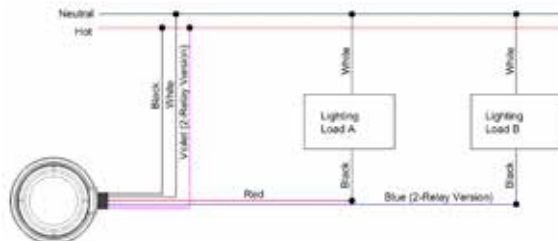
Description	Voltage	Catalog Number
PIR Sensor, Relay with Photocell	120-347V AC	HMHB21UPCW
PIR Sensor, 2 Relays with Photocell	120-347V AC	HMHB22UPCW
PIR Sensor, 1 Double Pole Relay with Photocell	208, 240V AC	HMHB23APCW
PIR Sensor, 1 Double Pole Relay with Photocell	480V AC	HMHB23BPCW
PIR Sensor, with Photocell	24V DC	HMHB2LVPCW*
180° Lens		HMHBL180
360° Lens (included)		HMHBL360
Aisle Lens		HMHBLA
End of Aisle Lens		HMHBLEA

*For use with a CU series control unit: **CU300HD** (120/277V AC, 50/60 Hz), **CU347A** (347V AC, 60 Hz).

Specifications

User interface	(1) twelve pin dip switch
Timer time-outs	Primary: 8-second test mode, 4, 8, 16 and 30 minute time-outs Secondary: (Can be disabled) 30, 60 and 90 minute time-outs
Passive infrared	Dual element pyrometer and spherical Fresnel lens designed for robust detection of a walking person*
Daylight sensor	Range: 50-2500FC, set point adjustable Downward and upward looking photosensors (direction selectable via dip switch)
Coverage	360° lens provided 180°, aisle and end-of-aisle lenses also available
Load ratings (line voltage units)	120V AC: 0-800W ballast or tungsten 277V AC: 0-1200W ballast 347V AC: 0-1500W ballast 208/240V AC: 0-1200W ballast 480V AC: 0-2400W ballast 1/4-HP motor load @ 120V AC, 1/6-HP @ 347V
	Output (Low voltage sensors): • 24VDC active high-logic control signal • Relay: N/O + N/C contacts; 500mA rated @ 24VDC; 3-wire isolated relay
Operating environment	Indoor and outdoor use Operating temperature: -40°F to 149°F (-40°C to 65°C)
Construction	Casing: High-impact injection-molded thermoplastic
Size and weight	Size: 4.0" Diameter x 1.5" Height Weight: 7oz
Color	White
Mounting	Mounts directly to end of a fixture through an extended 1/2 inch chase nipple For deeper body fixtures, an optional Extender Adapter (HMHBSA available separately) positions the sensor flush or below the bottom of the reflector for a full field of view
Certifications	Conforms to UL STD 508, UL STD 244A Conforms to IP65
Warranty	5-year limited

*When used with program start ballast, a 1-2 second delay from occupancy detection to lamp turn-on may be experienced.



120/277/347VAC line voltage for single and dual relay sensors (single phase only)

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