

Project		Catalog #		Type	
Prepared by		Notes		Date	



## WaveLinX

### PRO Industrial Fixture Mount Sensor (OEM-SWPD3)

Motion and Closed Loop Daylighting including Field Installed Aisle Shield

#### Typical Applications

Industrial • Manufacturing

#### Interactive Menu

- Order Information page 2
- Additional Resources page 3
- Connected Systems page 5
- Product Warranty

#### Product Certification\*



- Meets latest ASHRAE Standard 90.1 requirements
- Meets latest IECC requirements
- Meets latest CEC Title 24 requirements

#### Product Features



#### Compatibility



## Overview

The industrial sensors are an integral part of the WaveLinX connected lighting system and offer passive infrared (PIR) occupancy and a photocell for closed loop daylighting. WaveLinX PRO industrial sensors offer installation heights up to 40 feet and have coverage patterns up to 5000 square feet (see sensor specifications - field of view). When part of WaveLinX PRO, the sensor operates on a wireless mesh network based on IEEE 802.15.4 standards.

The sensors offer simple tool-less integration into WaveLinX PRO industrial light fixtures equipped with the 4-pin Zhaga Book 18 compliant socket. Once installed, sensors receive power from their co-located light fixture with no batteries to replace. The sensor in combination with the WaveLinX Mobile application allows you to gain considerable energy savings from occupancy and daylight sensing lighting control. The WaveLinX Mobile application allows you to map the sensor to any area or control zone, select occupancy or vacancy, occupied and unoccupied light levels and set the hold time.

## Product Features & Benefits

- Models suitable for High bay (up to 40ft / 45ft major motion) applications
- Out of the box functionality: Occupied to Full, Unoccupied to 10%, daylighting disabled
- Passive Infra-Red (PIR) motion sensor with coverage up to 5000 square feet
- Integrated photocell for closed loop daylight harvesting
- Software configurable settings with WaveLinX Mobile application
- Simple tool-less twist lock fixture connection via 4-pin Zhaga Book 18 socket
- IP66 rating for warehouse and manufacturing environments
- Energy calculations available through WaveLinX CORE

## Order Information

WaveLinx PRO Industrial Fixture Mount Sensors are accessories to the WaveLinx connected lighting (WCL) system and requires a WaveLinx Area Controller (WAC) for full functionality.

WaveLinx PRO Industrial Fixture Mount Sensors are used to provide occupancy and daylight dimming to spaces from the industrial light fixture. For energy code compliance, additional sensors may not be required.

Catalog Number

Catalog #	Description
OEM-SWPD3-WH	WaveLinx PRO Industrial Fixture Mount Sensor, White, up to 40ft (12.2m)
Notes	Notes
For use with industrial light fixtures equipped with the WaveLinx PRO Zhaga compliant 4-pin socket only.	When used as a component in the WaveLinx connected lighting system, WaveLinx PRO system design best practices (including WaveLinx Area Controller placement, line of sight distances, number of hops, etc.) must be followed. High mount models accommodate mounting height to 45ft (13.7m) for major motion (vehicles, fork trucks, etc.) - may not detect minor motion of people depending on conditions.

## Required Integration Components

Catalog Number

Catalog Number	Description
OEM-BK18-SOCKET	Zhaga compliant 4-pin book-18 socket
OEM-OUT-IND-CM	WaveLinx PRO outdoor - Industrial 0-10V control module

## Product Specifications

### Sensor Mechanical

**Size:** Base Diameter 3.2" (82mm) Height: 1.6" (41mm)

**Weight:** 0.20 lbs (0.10 kg)

#### Environment:

- **Operating temperature:** -40°F to 131°F (-40°C to 55°C)  
Sensor passive infrared (PIR) performance may become exceedingly sensitive below -4°F (-20°C)  
**Note:** WaveLinx Area Controller should be installed in an indoor conditioned environment, preferably with line of sight through a window to one or more WaveLinx PRO wireless devices.
- **Storage temperature:** -40°F to 158°F (-40°C to 70°C)
- Default behavior intended for indoor use only

**Mounting:** Fixture mount

**Mounting Height:** High bay up to 40ft (12m)

**Color:** White

**Housing:** UV stabilized plastic

**Ingress protection:** IP66

**Light Sensor Detector Shields:** Field configured shield included

#### Daylighting Installation:

- Ensure that sensor is not looking directly at artificial light
- Ensure that sensor is not obstructed
- Use configurable lens mask for desired directionality

### Socket Mechanical

**Socket Color:** Gray

**Socket Housing:** PBT

**Socket Nut Color:** Black

**Socket Nut Housing:** Nylon

**Socket Contacts:** Copper Alloy, Sn over Ni finish

**Star Washer:** Stainless Steel

**Lock Washer:** (Ref P/N: 2213817-1) and **Nut:** (Ref P/N: 2213791-1)  
not assembled, shipped bulk pack

### Electrical Control Module

**Input Voltage:** 120-277VAC, 50/60Hz

**Input Current:** 6mA @ 120VAC, 4.5mA @ 277VAC

**Output Voltage:** 120-277VAC, 50/60Hz (Relay)

**Output Current:** 6A MAX

**Load Types:** Electronic Ballast, LED, Magnetic Ballast

**Output Control:** 0-10VDC, Class 2

### Software Specifications

- Any number of sensors can be mapped to any number of zones
- Mobile app configuration for Occupancy/Vacancy
- Remote Hold Time settings fully configurable via mobile app
- Mobile app configuration of Occupied and Unoccupied light levels
- Energy calculations available through WaveLinx CORE

### Wireless Specifications

**Radio:** 2.4GHz

**Standard:** IEEE 802.15.4

**Transmitter Power:** + 8dBm

**Range:** Sensor to sensor; 160ft (49m) LOS (best practice)

### System Performance

**Maximum number of nodes supported:** 150 per WaveLinx Area Controller (best practice 100 devices)

### Standards/Ratings\*

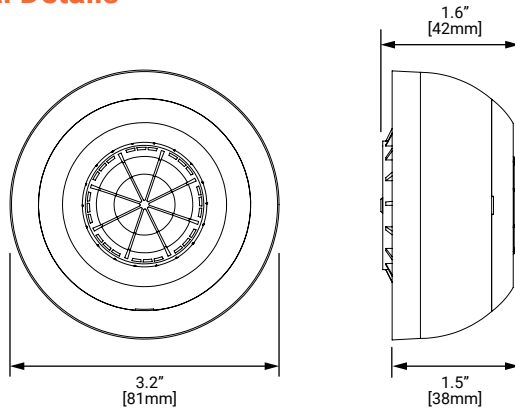
- cULus Listed - Energy Management Equipment (UL916)
- FCC Part 15/ECES-003
- Meets latest ASHRAE Standard 90.1 requirements
- Meets latest IECC requirements
- Meets latest CEC Title 24 requirements
- Socket must comply with Directive 2002 / 95 / EC (ROHS)

### Warranty

Five year warranty standard

## Dimensional Details

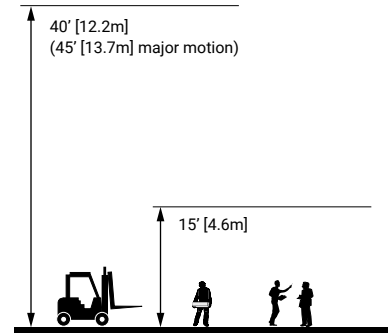
Sensor



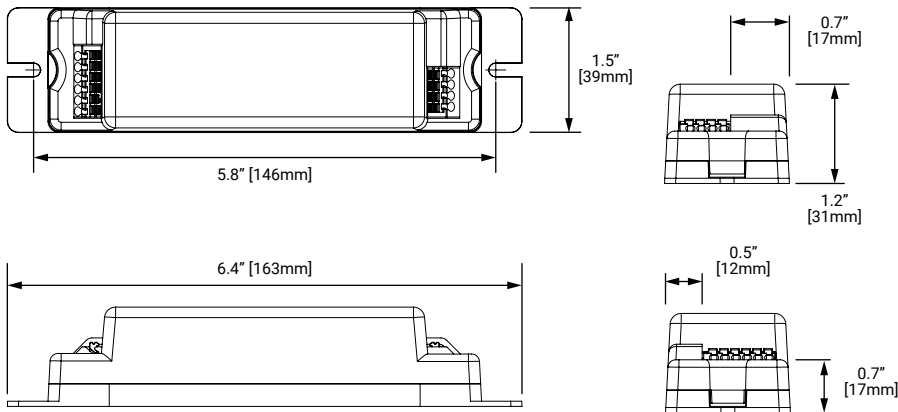
TOP

SIDE

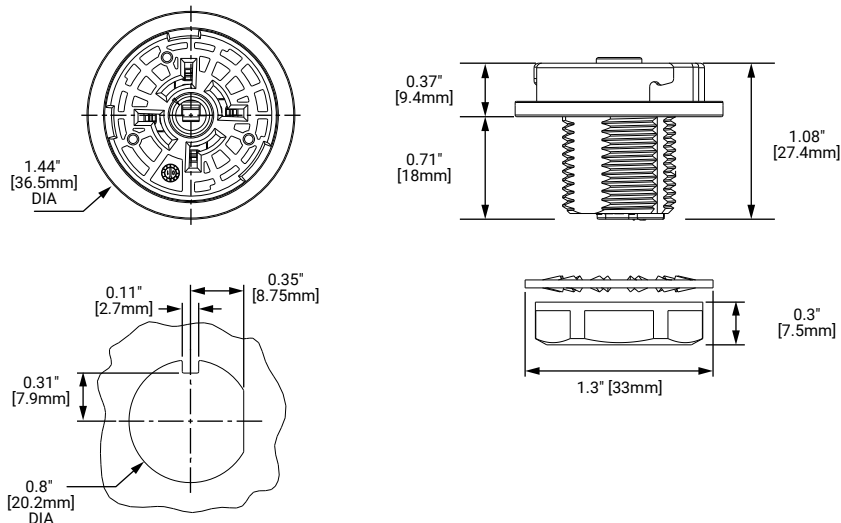
## Mounting Height



Control Module

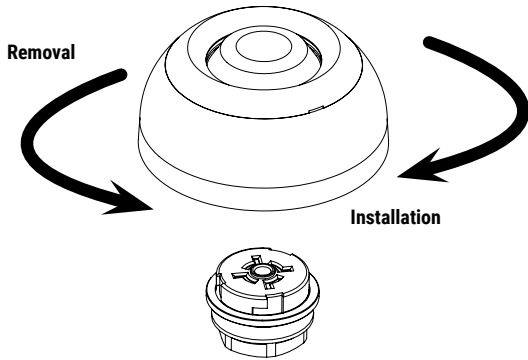


Socket

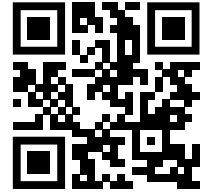


## Installation

The SWPD3 easily installs into WaveLinx PRO-ready LED fixtures equipped with Zhaga Book 18 4-pin sockets. Sensor connection is enabled via the simply twist-lock connection and provides immediate out-of-the-box functionality.

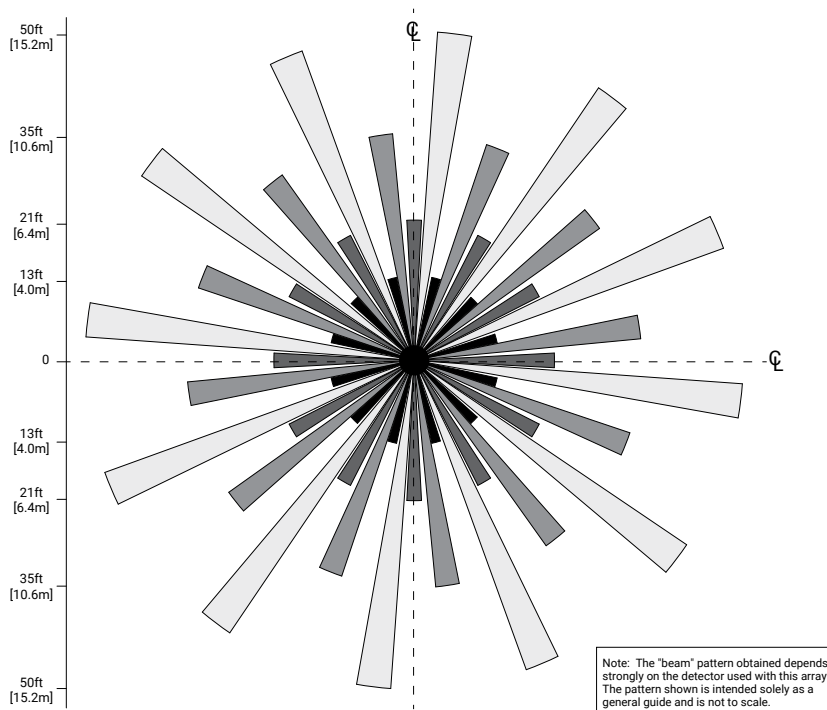


For wiring / installation details:



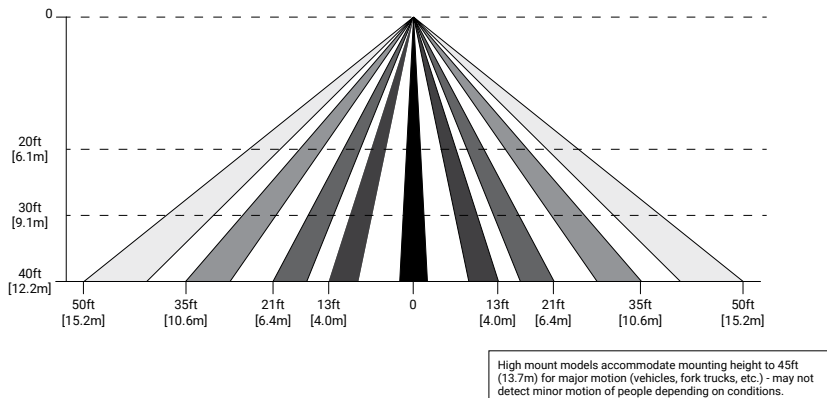
## Field of View

### TOP VIEW:



**Note:** False motion detection can occur when objects of contrasting temperature with the surrounding environment move within the sensor field of view. Wind blowing leaves, branches, or other objects can trigger the motion sensor. It is recommended that the sensor be mounted away from these objects.

### SIDE VIEW:



**Note:** Air movement at temperature contrasting with the environment may cause false motion detection. For that reason, it is recommended that the sensor be mounted 3-4ft away from air vents, when possible.

## System Diagram:

This diagram shows the main components of the WaveLinx connected lighting system with CAT and PRO devices.

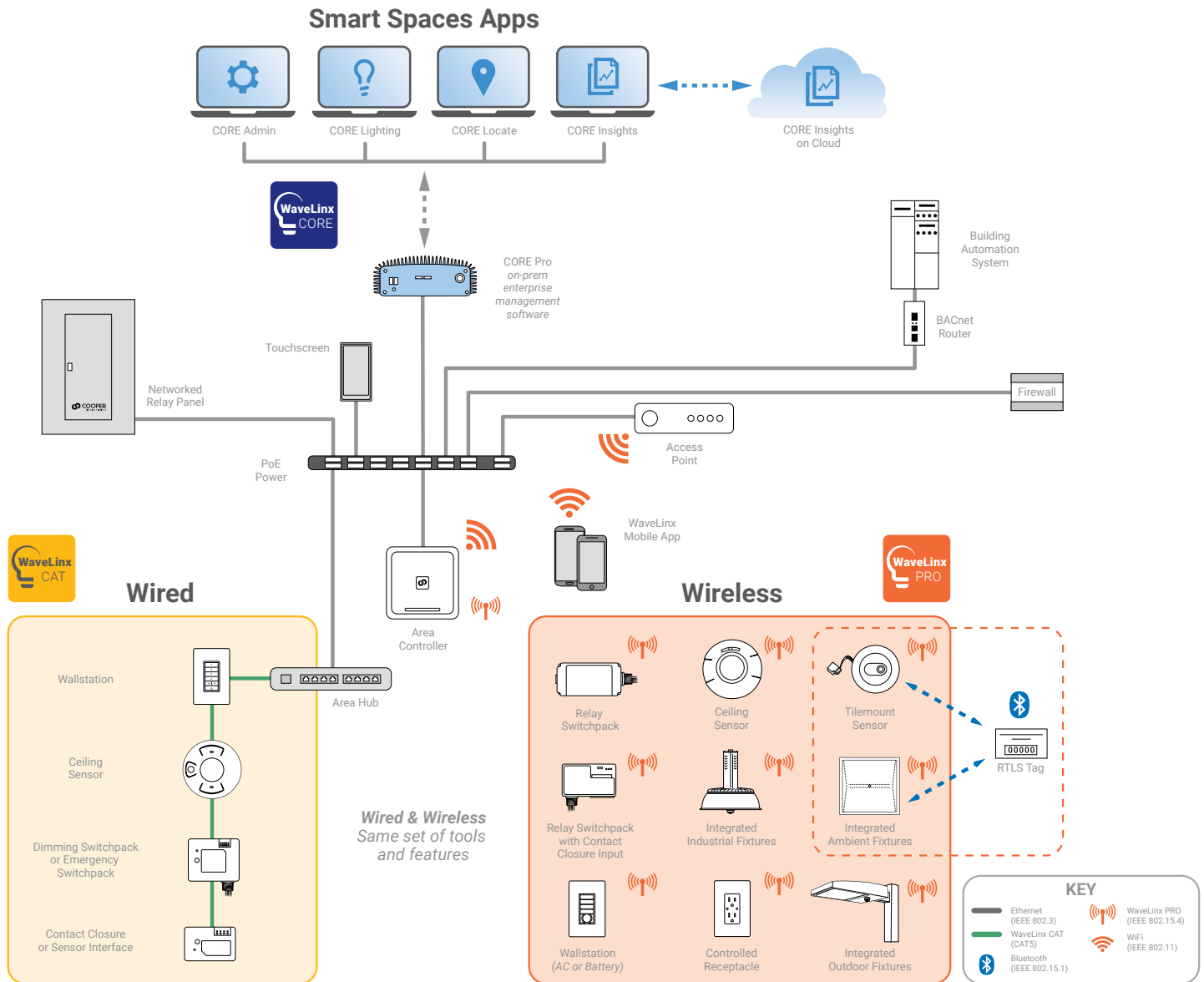
The PRO devices communicate using wireless mesh technology based on the IEEE 802.15.4 standard. A PoE LAN connection for each WaveLinx Area Controller (WAC) is required for power and data access to the building lighting network.

The CAT devices communicate over the category 5 based communication bus and control the light fixtures using a relay (on/off) and 0-10V output (dim/raise).

WaveLinx Area Controllers (WAC) communicate with WaveLinx CORE Apps over the Ethernet network.



View  
WaveLinx Network  
and IT Guidance  
Technical Guide



**Control Systems**

• WaveLinx