

# MODUS SmartBAY™

Wireless control system

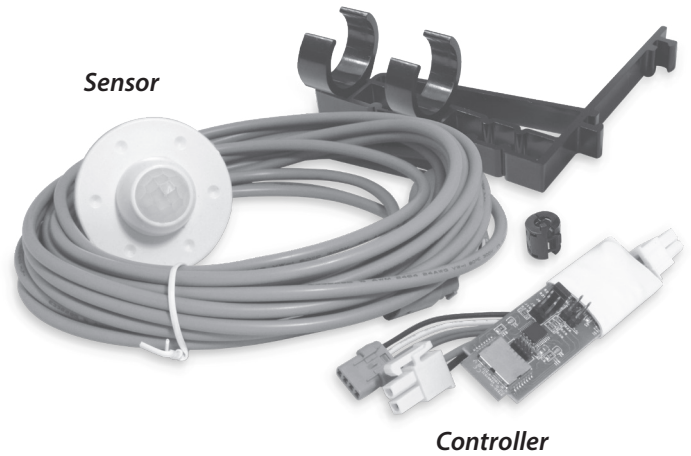
601000 / 701986

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The MODUS SmartBAY™ Wireless Control System is a state-of-the-art, intelligent lighting control solution that features a wireless mesh (WPAN) control design allowing dimming based on traffic and occupancy detection to deliver the right amount of light—where you need it, when you need it—for incredible ROI and energy savings.

This standalone, 2.4 GHz wireless control system complies with the IEEE 802.15.1 standard and features a small form factor, rotatable sensor detection pattern to minimize blind spots, adjustable ramp-up/ramp-down timing for a smooth consumer experience, 3-year warranty, and the quality and reliability you've come to expect from SloanLED.

- Sensors can be spaced up to 6 m (20 ft) radius from parent luminaire, with detection pattern of 8 m (26 ft) radius when at 4.3-4.9 m (14-16 ft) installed heights; and control nodes up to 4.9 m (16 ft) apart on a single canopy with the ability to create zones for multiple canopies or large canopies/installations
- Broad area coverage pattern
- Detection height designed for typical fuel canopies
- Easy installation and toolless pattern alignment



## Product Overview

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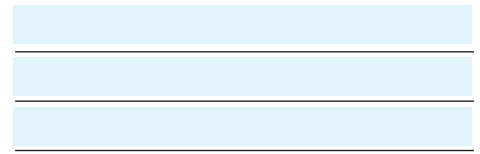
## Sensor

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## Sensor

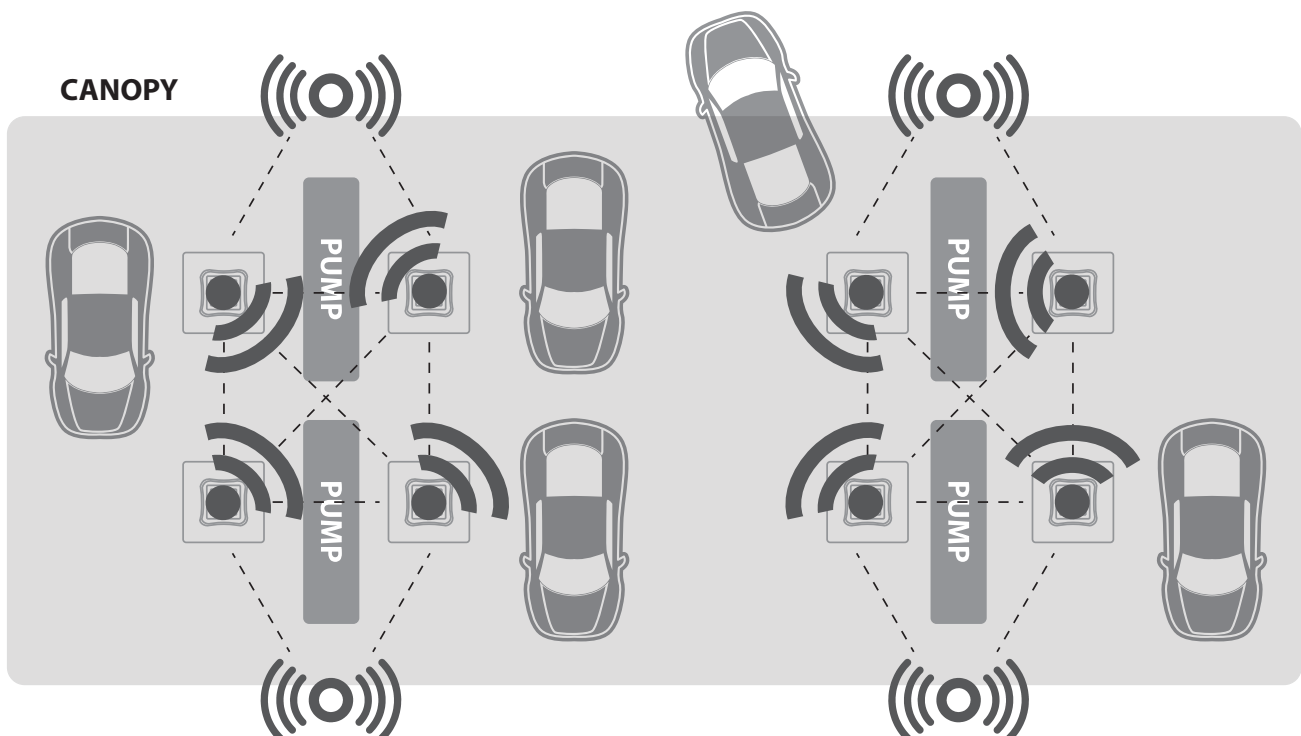
The MODUS SmartBAY™ Wireless Control System sensor is a passive infrared (PIR) technology sensing device, powered by the MODUS SmartBAY controller (P/N 601000). PIR technology is an industry standard for detecting moving objects by their heat signature and comparing to background thermal levels. Lights are enabled in the zoned WPAN network. Movement detection is a mesh broadcast to other controllers within the defined local grouping.

The sensor is easily installed in the underside of canopies, soffits, and other applications where traffic over-watch is maximized. Pattern alignment is toolless.

- Wireless mesh technology (WPAN) compliant to IEEE 802.15.1
- Broad area coverage pattern
- Detection height designed for typical fuel canopies
- Small form factor



|             |                                    |
|-------------|------------------------------------|
| Part number | 701986                             |
| Description | Single side-mount sensor and cable |



## Sensor specifications

### Functionality

- PIR occupancy detection
- Fits into  $\varnothing$  13 mm (1/2") hole
- Powered by MODUS SmartBAY Controller

### Electrical

**Input voltage** ..... 3.3 VDC (provided by 601000 PCBA)

### Performance

**Detection range** ..... Max. recommended height 5 m (16 ft)  
 Max. detection pattern diameter is 20 m (65 ft)  
 at recommended heights

**Ingress protection** ..... IP65

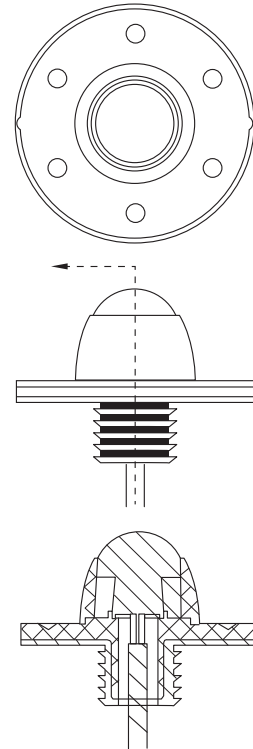
**Environment** ..... Covered outdoor locations; C1D2 max. fuel exposure

**Operating/storage temperature**... -20° C to 50° C (-4° F to 122° F)

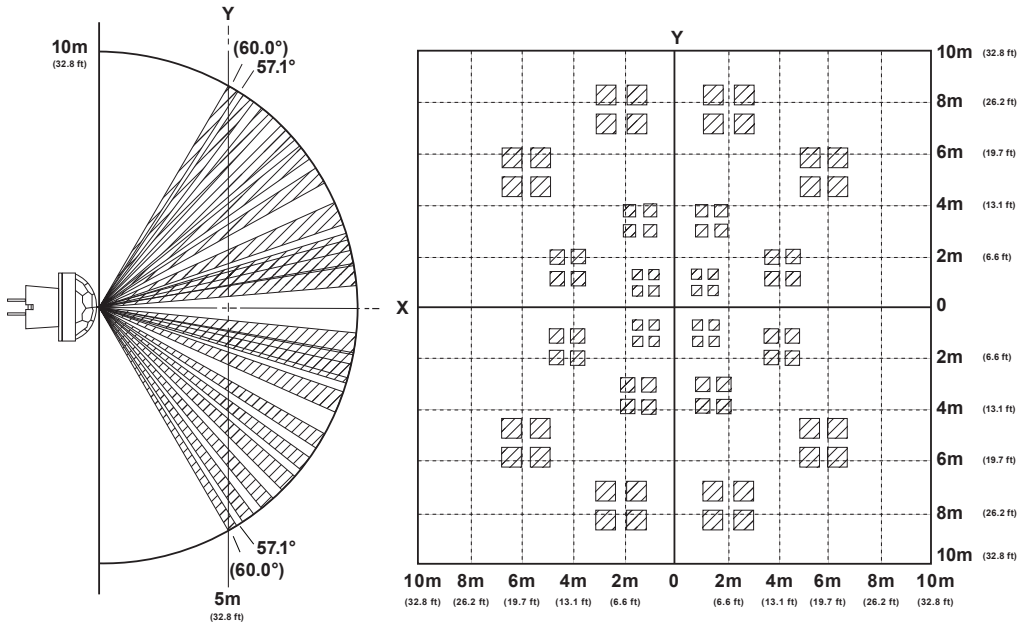
### Documentation

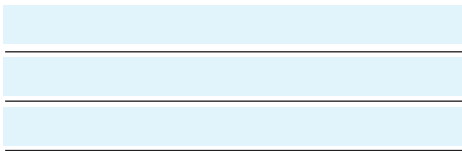
**Agency listings**..... CE, FCC, RCM, RoHS

**Warranty**..... 3-year from date of manufacture



**X-Y cross section at 5 m (16.4 ft)**





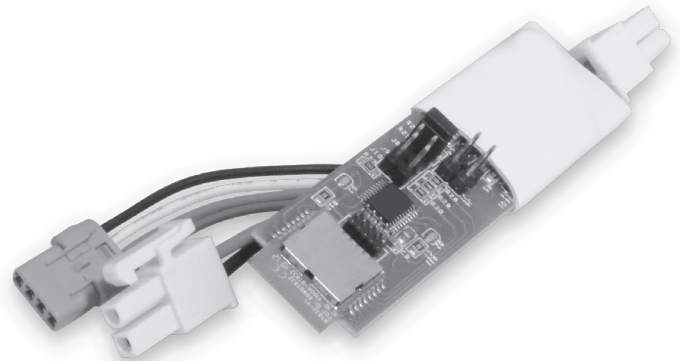
## Controller

The MODUS SmartBAY™ Controller converts fixtures into wirelessly responsive luminaires. Control functionality includes pre-programmed ramp-up/ramp-down parameters, configurable zoning, and the ability to mesh a virtually infinite number of fixtures. A 701986 PIR sensor can be attached to any controller.\*

Movement detection from a "parent" sensor and controller pairing is mesh broadcast to other controllers within the defined local grouping. The IEEE802.15.1 WPAN network enables all light in the zone area. Zoning is as simple as jumper selection, configurable while in the field – eight (8) zones can be independently specified on the controllers to selectively act as zones. Maximum system input power is jumper selectable to three levels.

The controller assembly is easily installed using clips provided to mount to the LED driver. Programming is done at the factory and commissioning is field settable by jumper selection making installation hassle free.

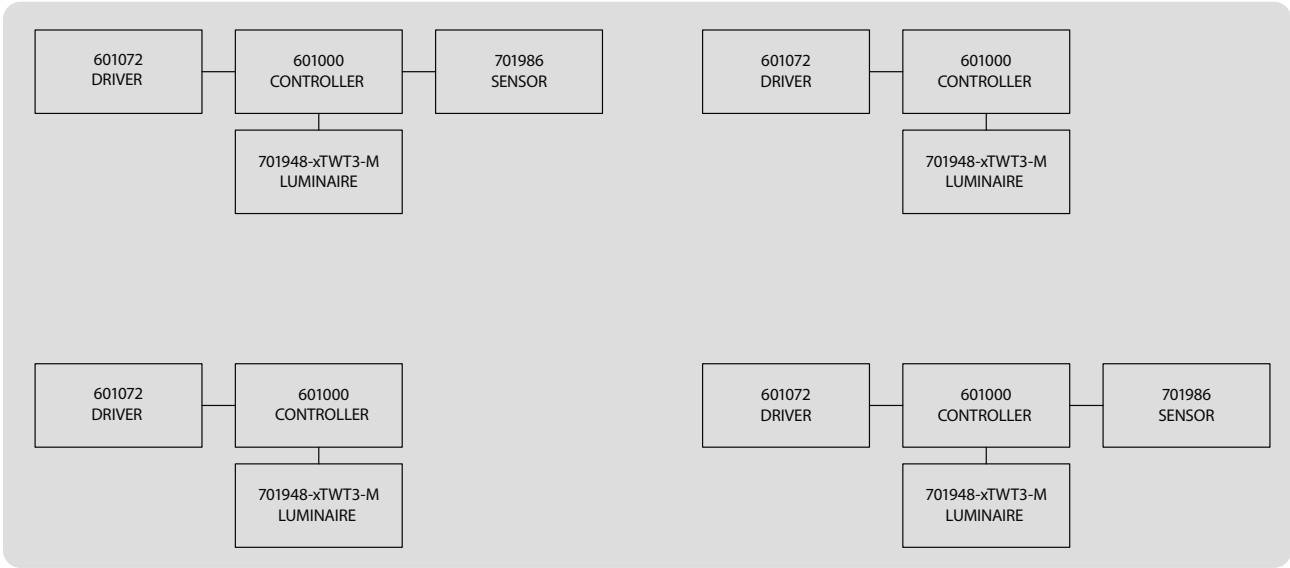
- Typical applications: Fuel station canopies, school lunch canopies, high-bay warehousing
- Wireless mesh technology (WPAN) compliant to IEEE 802.15.1
- Factory programmed On/Off/dimming profiles (brand specific available)
- Supports multiple mesh zoning



**Mounting Kit**  
 Part number: 601121  
 Each MODUS SmartBAY Wireless Control System includes one Mounting Kit.

|             |                     |
|-------------|---------------------|
| Part number | 601000              |
| Description | Wireless controller |

\* Only controllers that have the same factory applied customer number (601000-X, "X" is the customer number) communicate wirelessly in a mesh.



**TYPICAL ZONE CONFIGURATION**

## Controller specifications

### Functionality

- Each controller can accept one MODUS SmartBAY sensor and has wireless module FCC ID: X8WBT832 IC ID: 4100A-BT832
- Jumper settable zoning
- Jumper set to control fixture power

### Electrical

**Input voltage (nominal)** ..... 48 VDC (provided by secondary output of driver)

### Performance

**Detection range** ..... Max. recommended fixture spacing is 4.9 m (16 ft) dual skin canopy (longer on single skin)

**Max. number of luminaires** ..... 50 per zone

**Default ramp up time**..... 9±3 seconds

**Default ramp down time**..... 9±3 seconds

**Default hold time\***..... 2 minutes

**Ingress protection** ..... IP66

**Environment** ..... Covered outdoor locations; C1D2 max. fuel exposure

**Operating/storage temperature**... -20° C to 50° C (-4° F to 122° F)

### Documentation

**Agency listings**..... CE, FCC, RCM, RoHS

**Compliance**..... EN 55015, EN 61000-3-2, EN 61000-3-3, and EN 61547

**Warranty**..... 3-year from date of manufacture

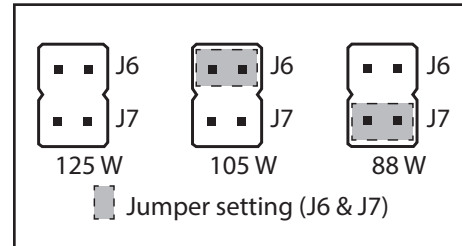


\* If no motion is sensed by the network of sensors, the units in the same zone dim to the factory default programmed setting of 30% of maximum selected system power. If different ramp up/ramp down/hold time/dimming % are desired, SloanLED can factory program customer supplied performance parameters.

## Power settings

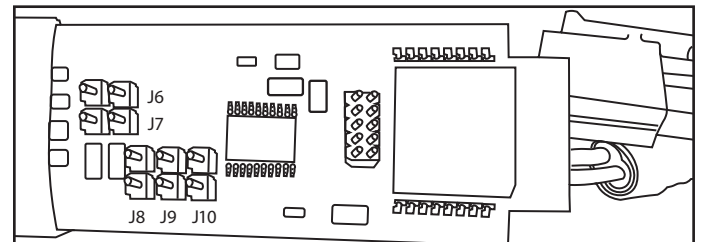
|       | J6     | J7     |
|-------|--------|--------|
| 125 W | Open   | Open   |
| 105 W | Closed | Open   |
| 88 W  | Open   | Closed |

Do not close both J6 & J7 simultaneously.



## Zone settings

| Zone # | J8     | J9     | J10    |
|--------|--------|--------|--------|
| 1      | Open   | Open   | Open   |
| 2      | Open   | Open   | Closed |
| 3      | Open   | Closed | Open   |
| 4      | Open   | Closed | Closed |
| 5      | Closed | Open   | Open   |
| 6      | Closed | Open   | Closed |
| 7      | Closed | Closed | Open   |
| 8      | Closed | Closed | Closed |



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