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Project	
Notes	
Type	Date
Cat. No.	

SPIR-OSDL/BT-PP4-DC-313 — AleoBlue Wireless Bluetooth® PIR Occ Sensor w/ Daylight Harvesting

DESCRIPTION

The SPIR-OSDL/BT-PP4-DC-313 combines occupancy sensing, daylight harvesting, 0-10V dimming and Bluetooth® NLC into a convenient, plug and play, field installable sensor. Utilizing a 2.5mm audio jack, the sensor can be easily installed in the field and is compatible with many Aleo panel luminaires, reducing lead times and labor cost. Using Bluetooth® NLC—the first wireless standard for professional lighting—this system supports Bluetooth® NLC, enabling reliable, scalable control. It can be easily expanded with Bluetooth® NLC-certified products or compatible switches for seamless integration and energy code compliance.

APPLICATIONS

Indoor: Open offices, Individual offices, Conference rooms, Classrooms, Retail stores, Hospitals, Lobbies.

Fixture Mount
PIR Occ Sensor with Daylight Harvesting

Specification Features

Overview

- Bluetooth® NLC
- PIR sensing with daylight haversting
- On-board antenna
- LED indicator for motion
- Sensor reset by a Remote controller (RC100) & Magnet

Benefits

- Cost-effective solution for energy savings
- Energy code compliance
- Robust mesh network
- Decentralized control (no single point of failure)
- Gateway-less configuration & operations

Warranty

5-year Limited Warranty. See warranty documentation for more information.

Ordering Information

Example: SPIR-OSDL/BT-PP4-DC-313

SPIR	OSDL/BT	PP4	DC	313
Series **SPIR** PIR Sensor	**Controls** **OSDL/BT** Wireless Bluetooth® Occupancy Sensor with Daylight Harvesting	**Mounting** **PP4** Plug and Play w/ 2.5mm Audio Jack	**Input Power** **DC** Direct Current	**313** **Designator** 313

Specifications and Dimensions subject to change without notice.

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Performance Summary

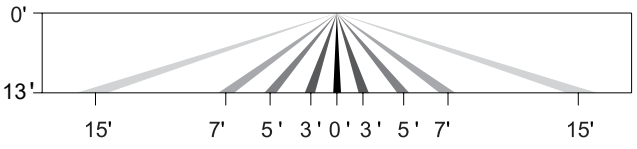
Input Voltage	10-14VDC
Input Current	>50mA
Dim Control Output	0-10V, max. 25mA sinking current
Factory Reset	Magnet & Remote Control Reset
Status Indicators	Red (network status), Green (occupancy detection)
Wireless Protocol	Bluetooth® NLC
Sensing Type	Passive infrared (PIR)
Operating Temperature Range	-20°C to 60°C

IP Rating	IP20
Mounting Height (Max.)	12ft. (max.)
Bluetooth® Range (Max.)*	100 ft.
Color	White
Warranty	5 Years Limited

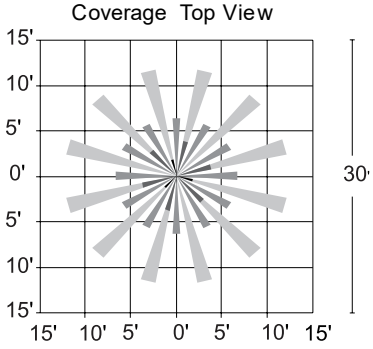
*Bluetooth Range is highly dependent on the integration of fixtures, surrounding environment and conditions. It is recommended to conduct testing for range accuracy.

Detection Area

Coverage Side View



Coverage Top View



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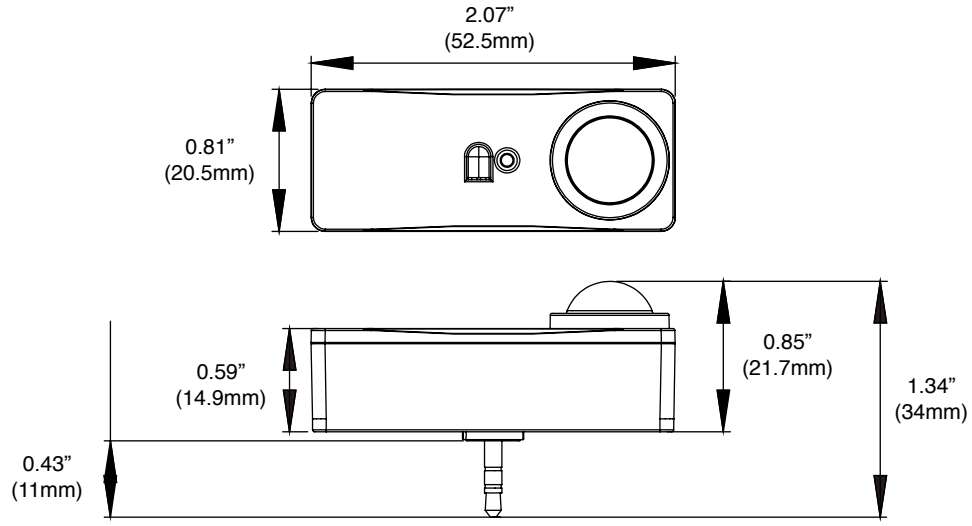
Dimensions



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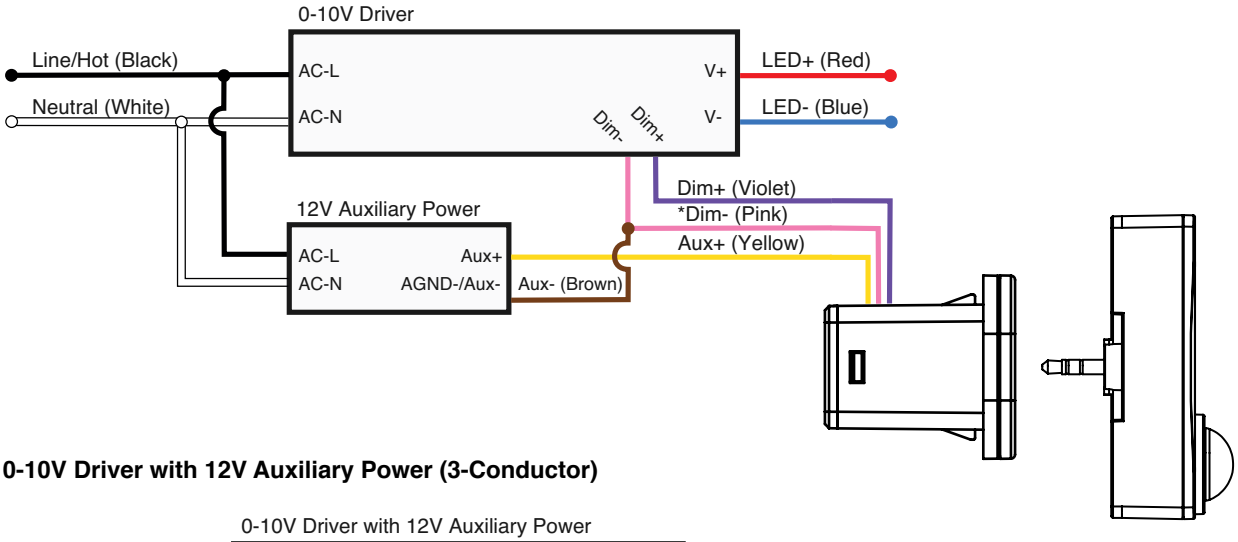
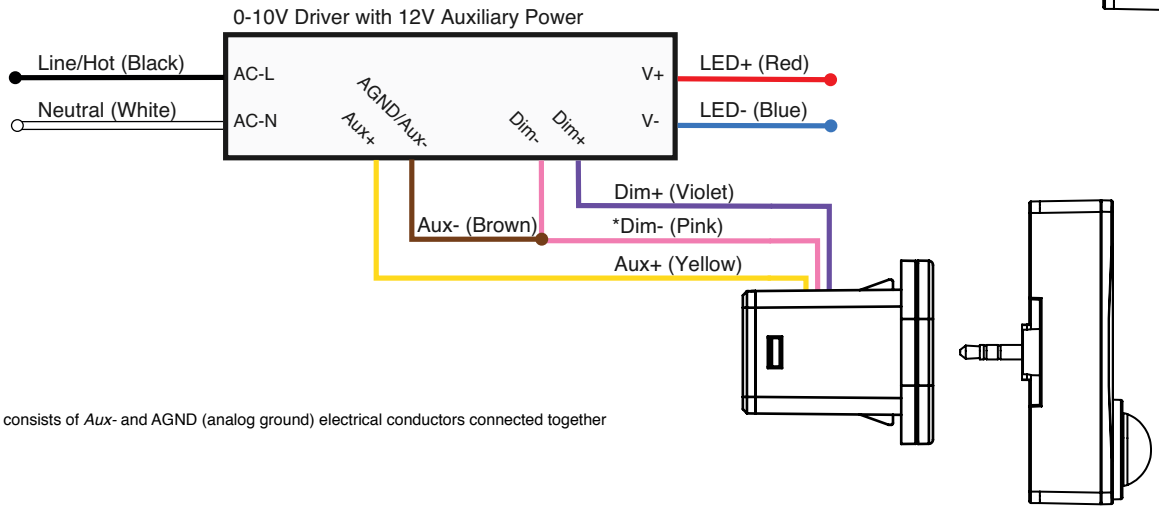
Wiring **Diagram**

Note: Driver must have 0-10V and Dim-to-Off function. 12V aux. power is required.

0-10V Driver (3-Conductor)

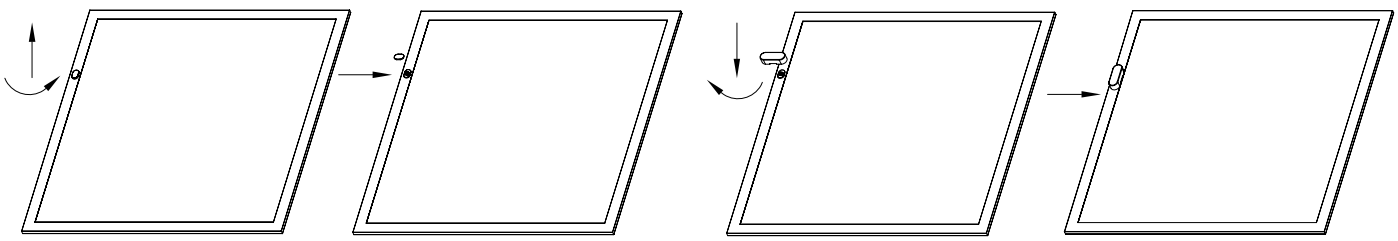


0-10V Driver with 12V Auxiliary Power (3-Conductor)



[1] *Dim-* consists of *Aux-* and AGND (analog ground) electrical conductors connected together

Sensor Installation



1. Rotate and remove the socket cover.

2. Insert and rotate the sensor to complete installation.

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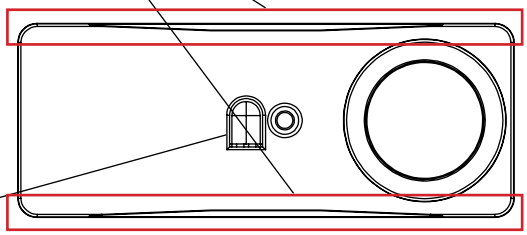
Additional **Information**

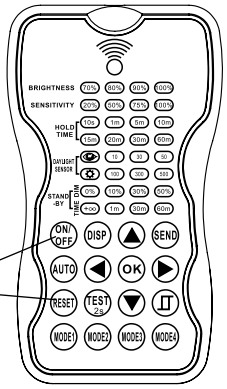
Magnetic Reset: Use a strong magnet to touch this area for 5 seconds.

Note: Sensor must not be covered by metallic or high density material that may block Bluetooth® radio signal.



Motion Indicator: Green
Status Indicator: Red

Remote Control Reset: Point it to sensor. First press "RESET" button, then press "ON/OFF" button. Luminaire quickly flashes to indicate success.



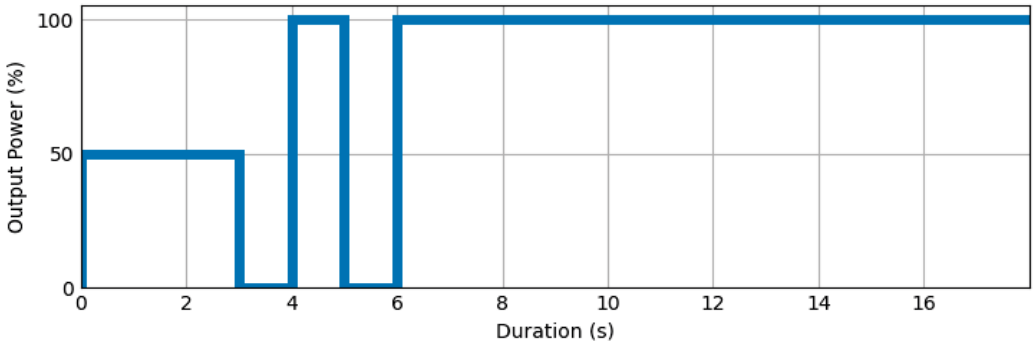
RC100

End of Line Testing

The AleoBlue Sensor/Node initiates an automatic End-of-Line (EOL) test sequence upon initial power-up. This uncommissioned mode provides a visual confirmation that the fixture is operating correctly prior to integration into the AleoBlue control system.

The EOL sequence is intended for use at the end of the manufacturing line and during field installation, allowing fixture manufacturers and electrical contractors to verify proper LED functionality before commissioning.

The sequence continues until the device is provisioned into an AleoBlue network. Once commissioned, the visual test will no longer activate on power-up.



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Learn More

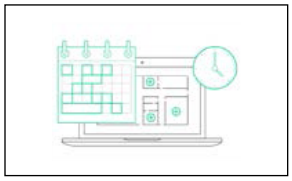
AleoBlue Wireless Bluetooth® Controls

The AleoBlue is a complete solution for managing connected lighting systems using a Bluetooth® Mesh lighting network. This enables seamless implementation of simple to complex lighting control scenarios without specialized training or lighting control engineering expertise.

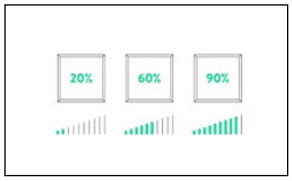
Features and Benefits

- Lighting Zones / Grouping
- Manual control of individual lights
- On Power up Behavior
- Zone Linking
- Vacancy Sensing
- Per fixture Daylight Control
- Per zone Daylight Control

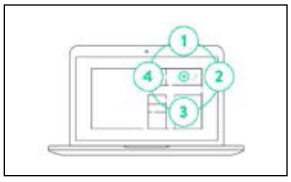
Scheduling



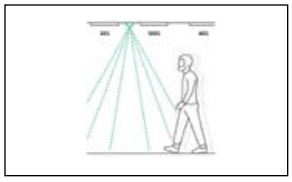
High and Low End Trim

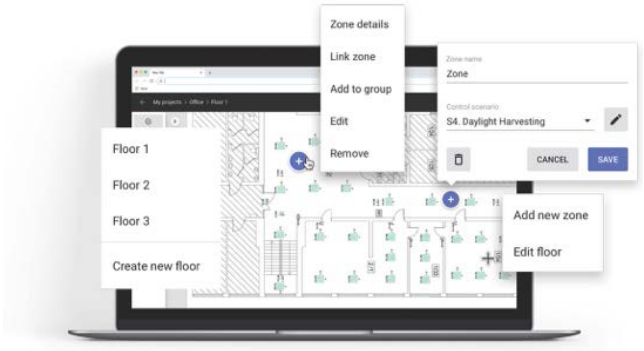


Scenes



Occupancy Sensing





- Optimized Energy Consumption
- Less Hassle with On-Site Adjustments
- More Savings
- Increased Safety
- More Flexibility

- Intuitive and user-friendly web and iOS apps
- No specialized training or lighting control expertize required
- Optimized for commercial spaces of any size
- No additional wiring or central control box
- Customizable lighting control parameters
- Future proof with Software Updates
- Multiple Zone Configurable
- Built-In Scenarios + Customization

Bluetooth® Mesh Technology Advantages

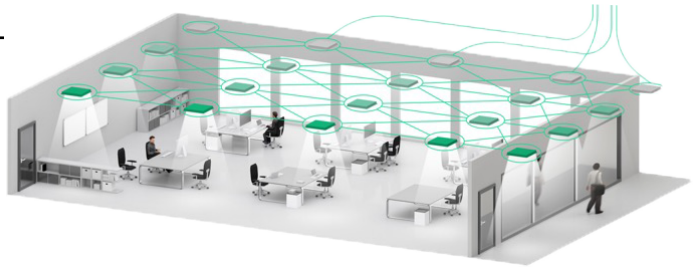
The fastest low-power communication

Scalability to thousands of devices

The most advanced encryption standards as well as the cutting-edge device authentication

No single point of failure (no central device)

Compatibility with a widely available devices (smart phones & tablets – both with Bluetooth 4.0 and Bluetooth 5)



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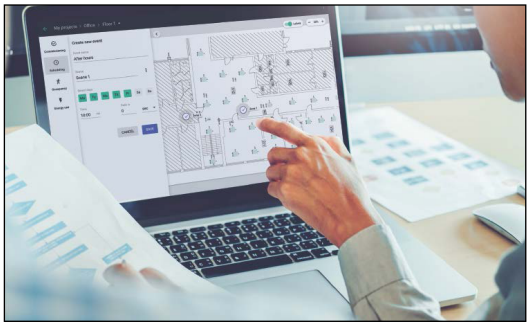
Planning

Remote preparation of a retrofit project with the use of our web app. Uploading floor plans, defining individual lighting zones and choosing lighting control scenarios.

1. Import Floor Plans
2. Define Individual Lighting Zones
3. Specify Desired Lighting Control Scenarios



Implementation

Adding lighting devices to the Bluetooth® mesh network on-site with the use of an iOS app.

Customization and calibration of lighting control parameters during and after the commissioning process. Defining scenes for specific working activities.

1. Add Devices to Your Connected Lighting Network
2. Implement Predefined Zones and Scenarios
3. Optimize Configuration Settings if Needed

Provisioning / Configurations

The Bluetooth® mesh Node is in the Unprovisioned Mode until it is provisioned by a “Provisioner”, which typically is a smart phone with a Bluetooth® mesh compatible app.

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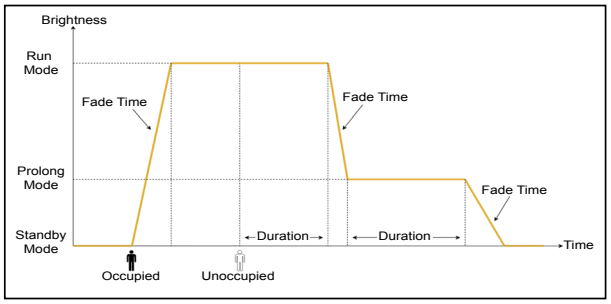
Lighting Control Scenarios

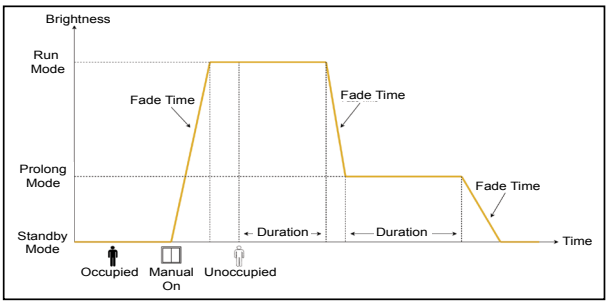
Multiple lighting control scenarios are available once the Bluetooth mesh Node is provisioned. At each scenario, duration, fade time and target brightness can be configured at any time with the iOS app.

Mode / Scenario	Wireless Switch	Occupancy Sensor	Ambient Light Sensor
Unprovisioned Mode	-	-	-
Switch	On / Off / Scenes	-	-
Occupancy	On / Off / Scenes	Auto On / Off	-
Vacancy	On / Off / Scenes	Auto Off	-
Occupancy with Daylight Harvesting	On / Off / Scenes	Auto On / Off	Enabled
Vacancy with Daylight Harvesting	On / Off / Scenes	Auto Off	Enabled

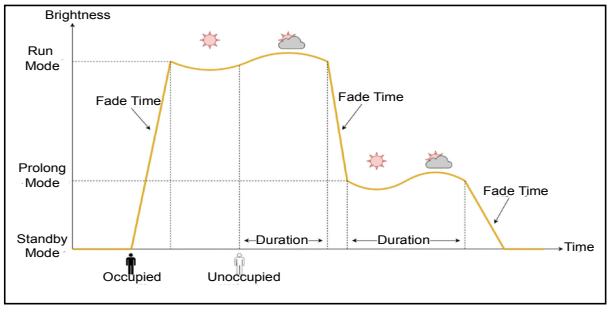
Occupancy Scenario



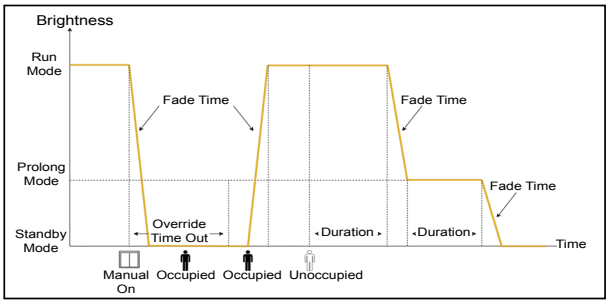
Vacancy Scenario



Occupancy Scenario - with Daylight Harvesting



Occupancy Scenario with Manual Override



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