# Casambi Mesh DALI Outdoor Controller

## Overview

- Complies with DALI D4i Specifications
- Single Channel DALI Wireless Controller
- Mounts to Light Fixture/ Luminaire via Zhaga Book 18 Quick Connect Receptacle
- Compatible with Casambi Wireless Mesh Systems
- Optional Photocell available for Ambient Light Detection (-110 &-210 models)

- Features High-End and Low-End Trim Adjustment, Zoning & Continuous Dimming
- IP65 Rated for Outdoor or Indoor Applications
- 24VDC or DALI Bus Powered Options
- ioXt Alliance Cybersecurity Certification

**For Indoor or Outdoor Use**
*Receptacle Sold Separately*

**E341446**

## Applications

The PSC-ZAD-WCM products are a series of Single Channel DALI D4i Wireless Fixture Controllers.

The controllers are IP65 rated and suitable for exterior use. The –110 and –210 versions also have an integral photosensor for ambient light detection.

These devices communicate directly with DALI drivers and are controlled wirelessly via Casambi Mesh technology allowing for wireless dimming of luminaires. The compact size allows for seamless integration to the fixture.

Two Power Input options are available. The Aux Powered (-100 & -110) models require 24VDC power to operate.  The DALI Bus Powered (-200 & -210) models use DALI Bus power to operate.  See the product wiring information for wiring designations.

## Operation

**Casambi Mesh:** The ZAD-WCM controller is compatible with the Casambi wireless mesh network and configured via a mobile app, available as iOS or Android. The app is used for initial setup and subsequent parameter adjustment.

**User Interface:** Additional features available via the mobile app include real time control and feedback, and scheduling without a gateway or internet access.

**Single Channel Control:** The controller provides a single channel of D4i compatible DALI output for driver control.

**Photosensor:** An integral photosensor (-110 or –210 models only) provides ambient light level sensing for automatic control of daytime or nighttime designated scenarios.

**Quick Connector:** The controller mounts to a Zhaga Book 18 compliant receptacle (sold separately - mwConnect part #PSC -ZAD-R1L). One receptacle is required for mounting each controller.

See the Casambi Mesh Commissioning User Manual for more information.

## Summary

| | |
|---|---|
| Product Type: Wireless DALI Controller | |
| Input Voltage \| Current Consumption: 24VDC \| 100 mA max (Aux Powered) 16VDC \| 100 mA max (DALI Bus Powered) | |
| DALI: Complies with DALI D4i Specifications | |
| Mounting: Mounts to Zhaga Book 18 receptacle (PSC-ZAD-R1L) sold separately | |
| Max Bluetooth Range[1]: 450ft (137m) | |
| Operating Temperature: -40°F to 158°F (-40°C to 70°C) | |
| Storage Temperature: -40°F to 185°F (-40°C to 85°C) | |
| Relative Humidity: 90-95% non-condensing at 30°C | |
| Color: Dark Brown, Black or White | |
| Warranty: 5 years | |

Note:

1. Bluetooth Range is highly dependent on the integration of fixtures, surrounding environment and conditions.  It is recommended to conduct testing for Bluetooth range accuracy.
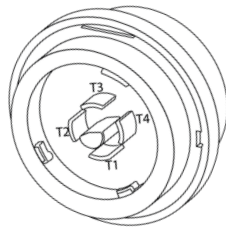
| Project | |
|---|---|
| Location/Type | |

## Physical Dimensions



1.15"
(29.2mm)

Front View

1.85"
(47.1mm)

Top View
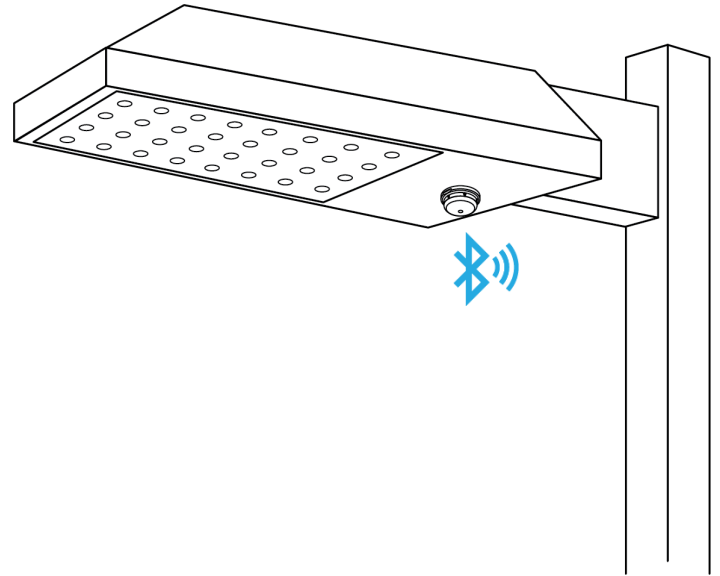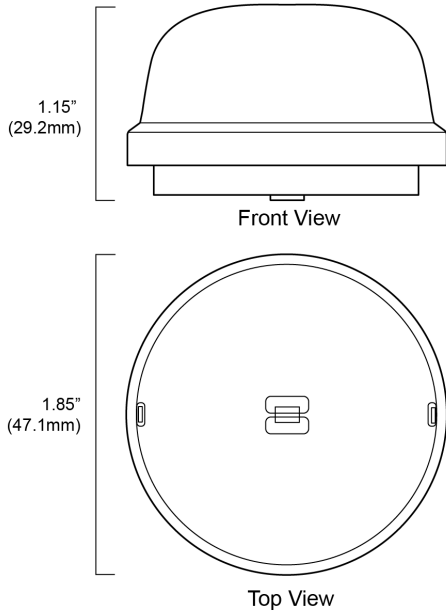
Drawings Are Not To Scale

## Product Wiring



View of Back of Device

View of Zhaga Book 18
Device Receptacle

| Tab/Slot | Wiring Designation | |
|---|---|---|
| | **-100 & -110 Aux Powered Models** | **-200 & -210 DALI Bus Powered Models** |
| T1 | 24VDC+ Power to Sensor-Controller | Reserved |
| T2 | DALI- (Negative DALI Bus) & 24VDC-Ground Power to Sensor-Controller | DALI (16VDC DALI Bus) Polarity Independent |
| T3 | DALI+ (Positive DALI Bus) | DALI (16VDC DALI Bus) Polarity Independent |
| T4 | Reserved | Reserved |

For Wiring Diagrams featuring the PSC-ZAD product series, visit the following link:

http://mwconnect.us/wiring/PSC-ZAD

**mw Connect**

## Installation of Device
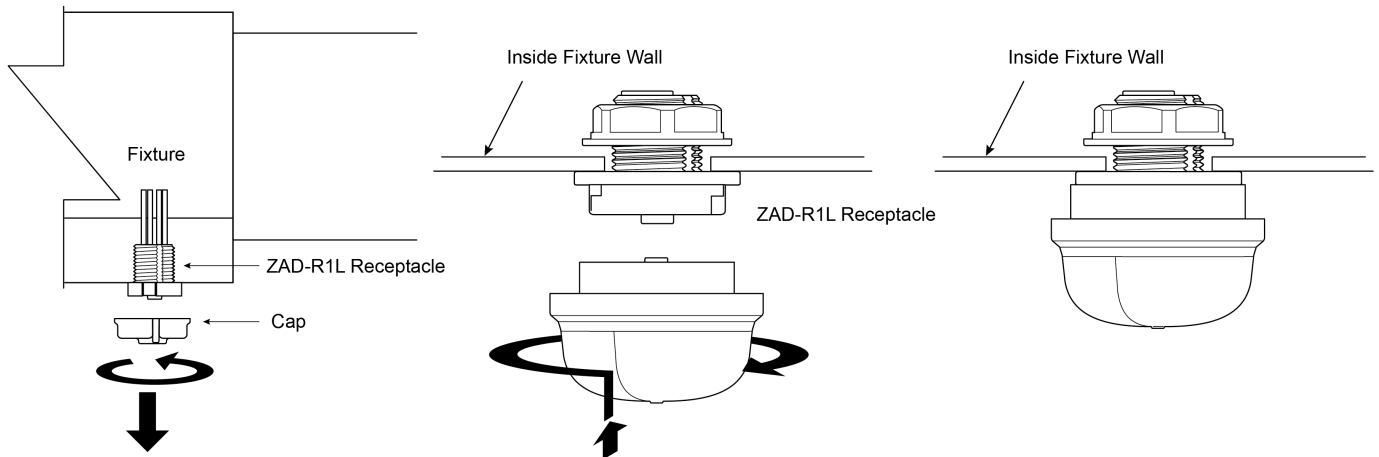


To install a ZAD device, first remove the protective cap on the Zhaga Book 18 receptacle by pushing up and rotating counterclockwise.

To install ZAD devices insert, push in and rotate clockwise to lock. No tools are required. Luminaires can be easily and quickly upgraded.

The receptacle for ZAD devices is typically installed by luminaire manufacturer and is shipped to job site with a protective cap.

## Model Number Matrix

| PSC | ZAD | WCM | ___ ___ ___ | BLE | CB | ___ ___ |
|---|---|---|---|---|---|---|
| **PSC** | **ZAD**<br>DALI Outdoor Device | **WCM**<br>Wireless Controller | **100**<br>Aux Powered | **BLE**<br>Wireless | **CB**<br>Casambi Mesh Compatible | **BN**<br>Brown Finish |
| | | | **110**<br>Aux Powered Photo Sensor | | | **WT**<br>White Finish |
| | | | **200**<br>DALI Bus Powered | | | **BK**<br>Black Finish |
| | | | **210**<br>DALI Bus Powered Photo Sensor | | | **GY**<br>Gray Finish |

Example:

**PSC-ZAD-WCM-110-BLE-CB-BN**

Design and specifications are subject to change without notice.