DATA SHEET

Ingy Mesh DALI Passive Infrared Outdoor Sensor-Controller

Overview

- Complies with DALI D4i Specifications
- Single Channel DALI Wireless Sensor-Controller
- Mounts to Light Fixture/ Luminaire via Zhaga Book 18 Quick Connect Receptacle
- Compatible with Ingy Wirepas Mesh Systems
- Features High and Low-End Trim Adjustment, Zoning & Continuous Dimming
- Digital Passive Infrared (PIR) Sensor
- Optional Photocell available for Ambient Light Detection
- IP65 Rated for Outdoor or Indoor Applications
- 24VDC or DALI Bus Powered Options

For Indoor or Outdoor Use
Receptacle Sold Separately

E341446

Applications

The PSC-ZAD-I products are a series of Single Channel DALI D4i Wireless Fixture Sensor-Controllers. These controllers are designed to work with a mesh system by converting mesh communication to DALI protocol.

The sensor-controllers use PIR motion detection architecture and passive infrared (PIR) technology for improved detection coverage.

The products are IP65 rated and suitable for exterior use. The –11 and –21 models also have integral photosensors for ambient light detection.

These devices communicate directly with DALI drivers and are controlled wirelessly via Wirepas 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 (-10 & -11) models require 24VDC power to operate. The DALI Bus Powered (-20 & -21) models use DALI Bus power to operate. See the product wiring information for wiring designations.

Operation

Ingy Wirepas Mesh: The PSC-ZAD-I sensor-controller is compatible with a Wirepas mesh network and configured via Ingy software.

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

Photosensor: An integral photosensor (–11 or –21 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 - part #PSC-ZAD-R1L). One receptacle is required for mounting each controller.

See the Ingy Commissioning User Manual for more information.

Summary

Product Type:
Single Channel Wireless Sensor-Controller

Input Voltage | Current Consumption:
24VDC|3mA max (Aux Powered)
12-22VDC|46mA max (DALI Bus Powered)

DALI: Complies with DALI D4i Specifications

Suggested Mounting Height:
Low Bay Lens - 8-30ft (2.4-9.1m)
High Bay Lens - 20-40ft (6.1-12.2m)

Maximum Sensor Range:
Low Bay Lens - 60ft (18.3m) diameter
High Bay lens - 80ft (24.4m) diameter

Mounting: Mounts to Zhaga Book 18 receptacle (PSC-ZAD-R1L), sold separately

Max Wireless Range[1]:
410ft (125m)

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, Gray or White

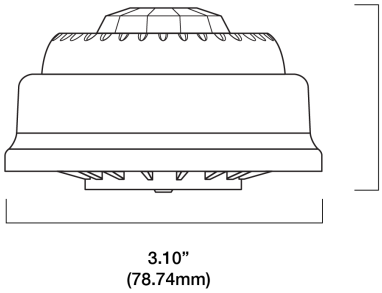
Warranty: 5 years

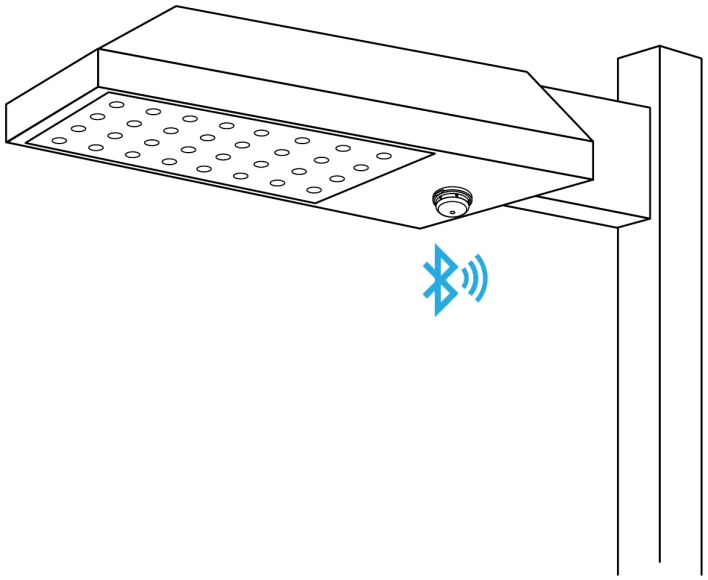
Note:

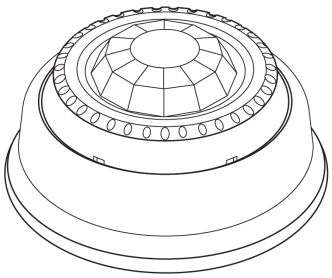
1. Wireless Range is highly dependent on the integration of fixtures, surrounding environment and conditions. It is recommended to conduct testing for Bluetooth range accuracy.

Project	
Location/Type	

Physical Dimensions

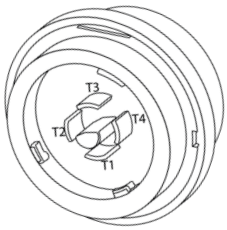




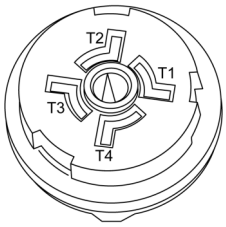


Drawing Are Not To Scale

Product Wiring



View of Back of Device



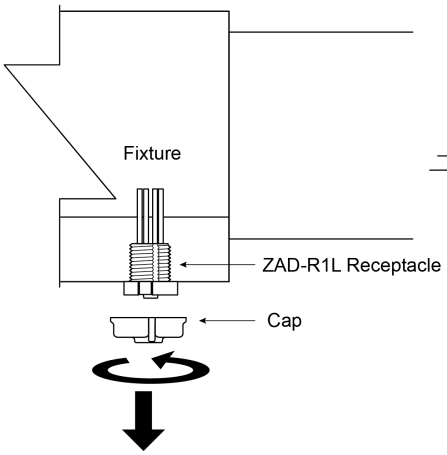
View of Zhaga Book 18
Device Receptacle

Tab/Slot	Wiring Designation	
	-10 & -11 Aux Powered Models	**-20 & -21 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

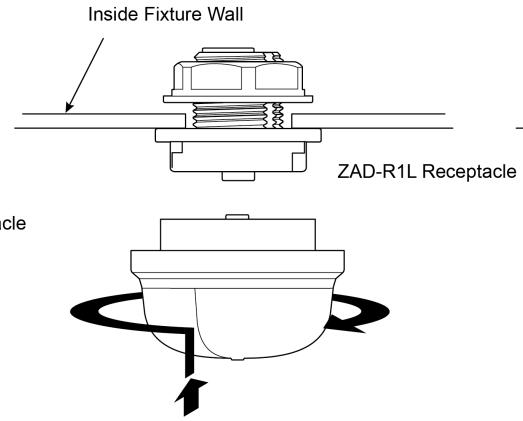
For Wiring Diagrams featuring the PSC-ZAD product series, visit the following link:

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

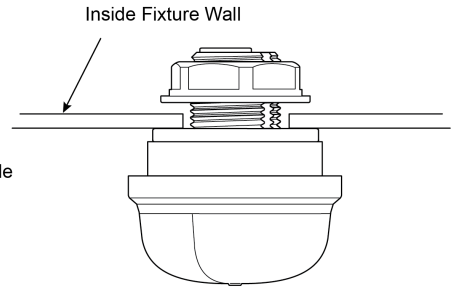
Installation of Device



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

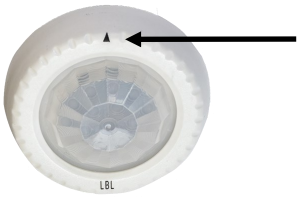


To install ZAD devices insert, push in and rotate clockwise to lock. No tools are required. Luminaires can be easily and quickly upgraded.



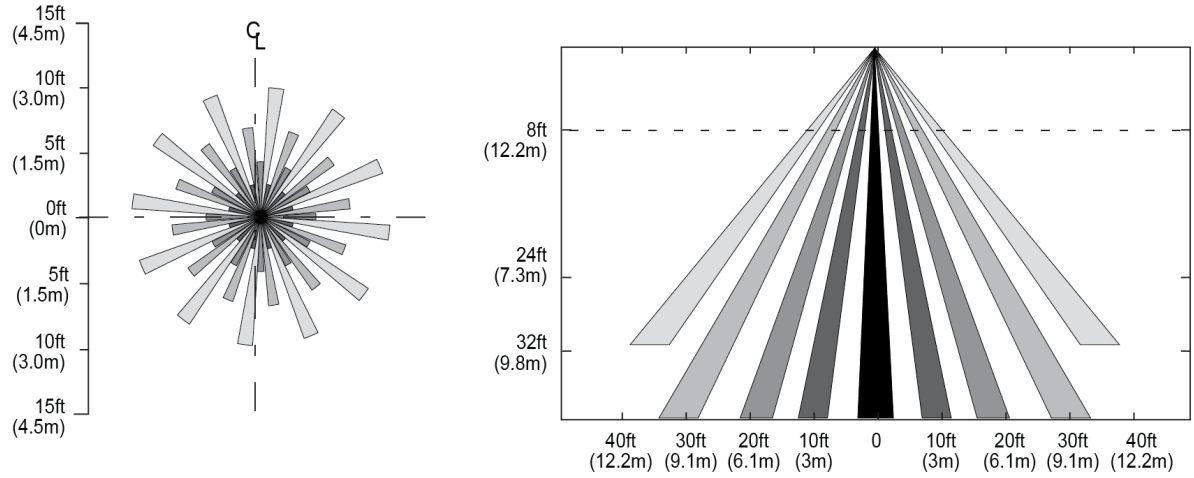
The receptacle for ZAD devices is typically installed by luminaire manufacturer and is shipped to job site with a protective cap.

Sensor Orientation

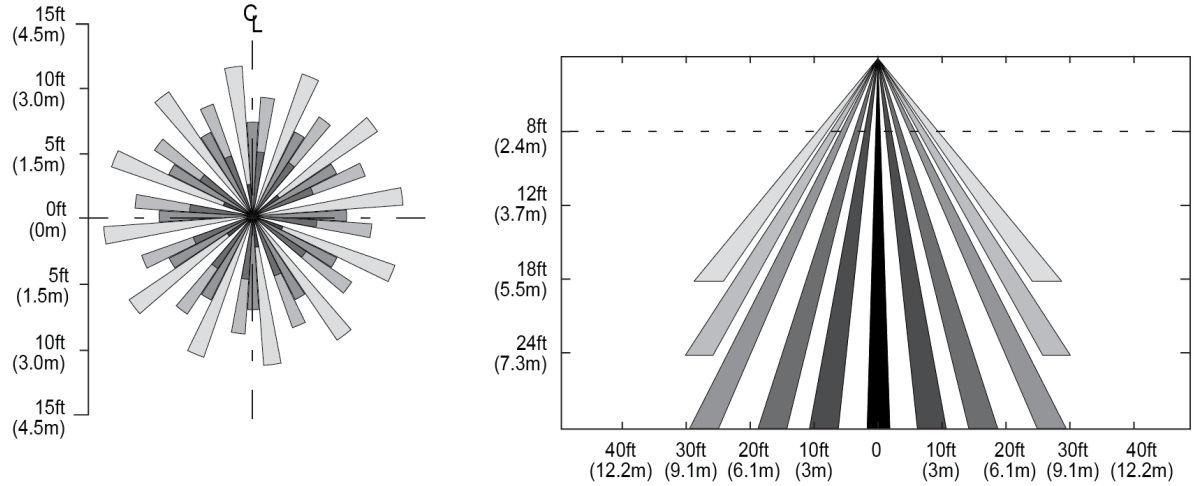


The arrow on the device corresponds to the direction of the CL center line of the sensor pattern (Sensor Patterns).

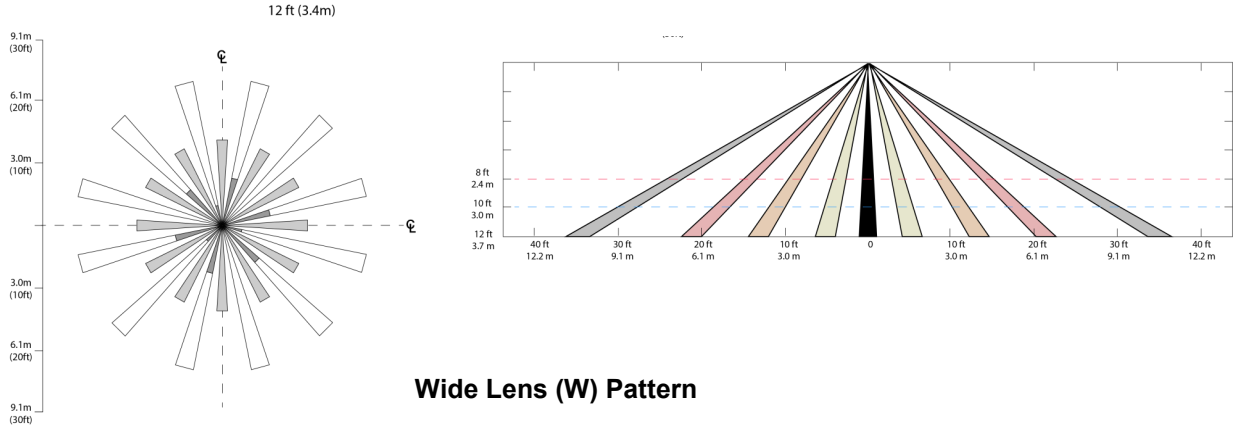
Sensor Patterns



High Bay Lens (H) Pattern



Low Bay Lens (N) Pattern



Wide Lens (W) Pattern

Note: The application/absolute range of the sensor is subject to variation because of different types of clothing, backgrounds, and ambient temperature. Therefore, ensure *that* the lens is properly oriented along routes with expected traffic and conduct testing along those routes.

Model Number Matrix

PSC	ZAD	I	__ __	__	WPS	NG	__ __
PSC	**ZAD**	**I**	**10**	**N**	**WPS**	**NG**	**BN**
	DALI Outdoor Device	Passive Infrared (PIR) Sensor	Aux Powered	Low Bay Lens Pattern	Wireless	Ingy Wirepas Mesh Compati-ble	Brown Finish
			11	**H**			**WT**
			Aux Powered Photo Sensor	High Bay Lens Pattern			White Finish
			20	**W**			**BK**
			DALI Bus Powered	Wide Lens Pattern			Black Finish
			21				**GY**
			DALI Bus Powered Photo Sensor				Gray Finish

Example:

PSC-ZAD-I-11N-WPS-NG-BN

Design and specifications are subject to change without notice.