TruBlu Mesh Compact DALI Book 20 Wireless Sensor-Controller

Overview

- Bluetooth® NLC Certified
- DALI Wireless Sensor-Controller supports up to 4 drivers
- Digital Passive Infrared (PIR) Sensor
- Manufactured in the USA (-BAB option)
- Features High and Low-End Trim Adjustment, Zoning & Continuous Dimming
- DALI D4i Certified
- Featured with a connector designed to Zhaga Book 20 specifications (Mount to 1/2" Knockout)
- 360° Sensor Coverage Pattern
- Energy Monitoring and Scheduling with a TruBlu™ Gateway
- Conforms with DLC NLC5 Cybersecurity Standards

USA · D4i™ · c UL us LISTED E341446 · FC · CE · DLC QPL LISTED · Bluetooth®
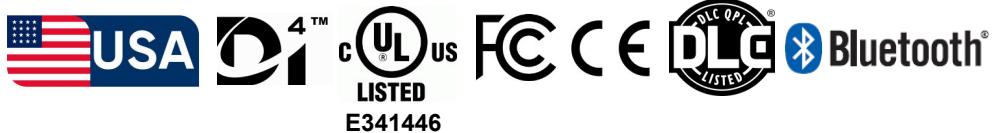
Applications

The PSC-ZBD-I is a Single Channel DALI D4i Wireless Fixture Sensor-Controller. The device includes a Passive Infrared occupancy sensor and integral daylight sensor.

The sensor-controller is featured with a connector designed to Zhaga Book 20 specifications-based wiring harness to simplify installation. The device mounts in a 1/2" knockout and is secured by the included optional clips or via the threaded body.

The product is Bluetooth® NLC certified and designed to work with a Bluetooth® SIG mesh system. The sensor-controller communicates directly with DALI drivers and is controlled wirelessly via Bluetooth Mesh technology.

Manufactured in the USA

The PSC-ZBD-I device is Manufactured in the USA, using both imported and US-made components, when ordered with the –BAB option.

Accessories

The PSC-ZBD-I sensor-controller operates on power from the DALI Bus. See the Wiring Table for designation of wiring tabs/slots.

Operation

TruBlu™ Mesh Controls: The sensor-controller is a Bluetooth NLC certified device by the Bluetooth SIG and offers true multi-vendor interoperability. Configuration of the device and mesh network is accomplished via the TruBlu web portal or iOS mobile app. The app is used for initial setup and subsequent parameter adjustment.

Advanced functionality such as energy monitoring, and demand response is available with the TruBlu Gateway (ordered separately).

Control: The sensor-controller supports up to four drivers of D4i compatible DALI output for driver control. Data aggregation according to DALI Part 341 specification. Specify in the ordering code with DT1, DT6 or DT8 for the profile options.

Daylight Sensor: Features an integral Photocell for daylight control integration.

Quick Connector: The device is featured with a connector designed to Zhaga Book 20 specifications and includes a wiring harness.

See TruBlu™ Commissioning User Manual for more information.

Summary

|	
Product Type: Wireless DALI PIR Sensor and Controller	
Input Voltage | Current Consumption: DALI Bus | 30 mA	
DALI: Complies with DALI D4i Specifications	
Mounting: Featured with a connector designed to Zhaga Book 20 specifications (Mount to 1/2" Knockout)	
Mounting Height: 8 to 15ft (2.4 to 4.6m)	
Max Sensor Range[1]: 15ft (4.6m) Radius	
Max Bluetooth Range[2]: 100ft (30.4m)	
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	
Color: White	
Warranty: 5 years	

Notes:
1. The application/absolute range of the sensor is subject to variation because of different types of clothing, backgrounds, and ambient temperature. It is recommended to conduct testing for range accuracy.

2. 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

1.74"
(44.1mm)

0.72"
(18.3mm)

0.82"
(20.9mm)

0.46"
(11.6mm)

0.69"
(17.4mm)

ø1.26"
ø(32.0mm)
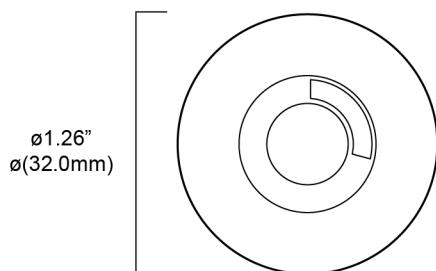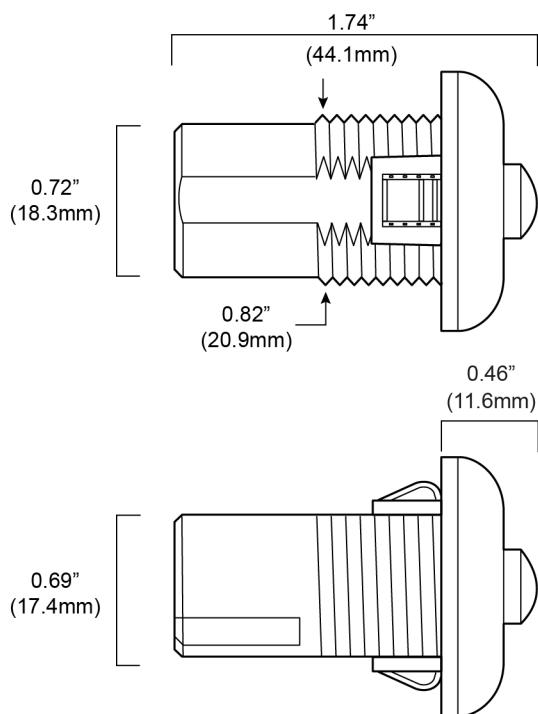
Drawings Are Not To Scale

PIR Sensor Pattern

15ft
(4.5m)

0ft
(0m)

15ft
(4.5m)

C_L

C_L

0ft
(0m)

8ft
(2.4m)

10ft
(3.0m)

15ft
(4.5m)

15ft
(4.5m)

7.5ft
(2.25m)

0ft
(0m)

7.5ft
(2.25m)

15ft
(4.5m)
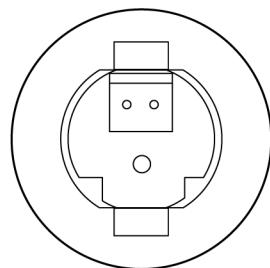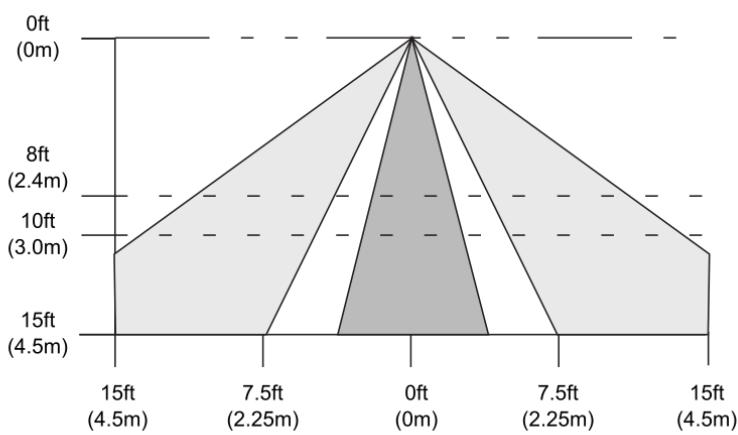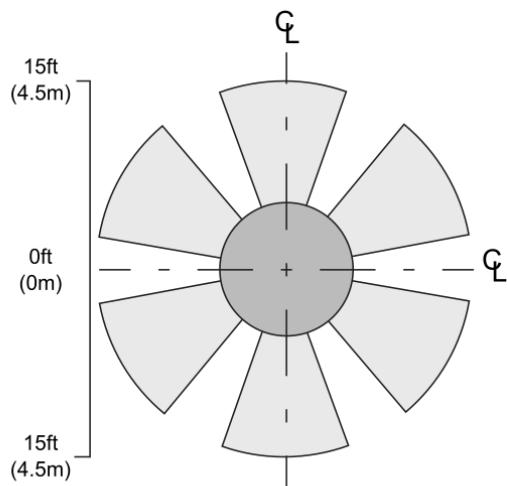
Example Application: Sensor-Controller Installed with DALI Driver

Light Fixture / Luminaire

Line Neutral Input
Line Input

DALI Driver

+ / −

DALI Bus+
DALI Bus−

ZBD Sensor-Controller

Drawings are not to scale
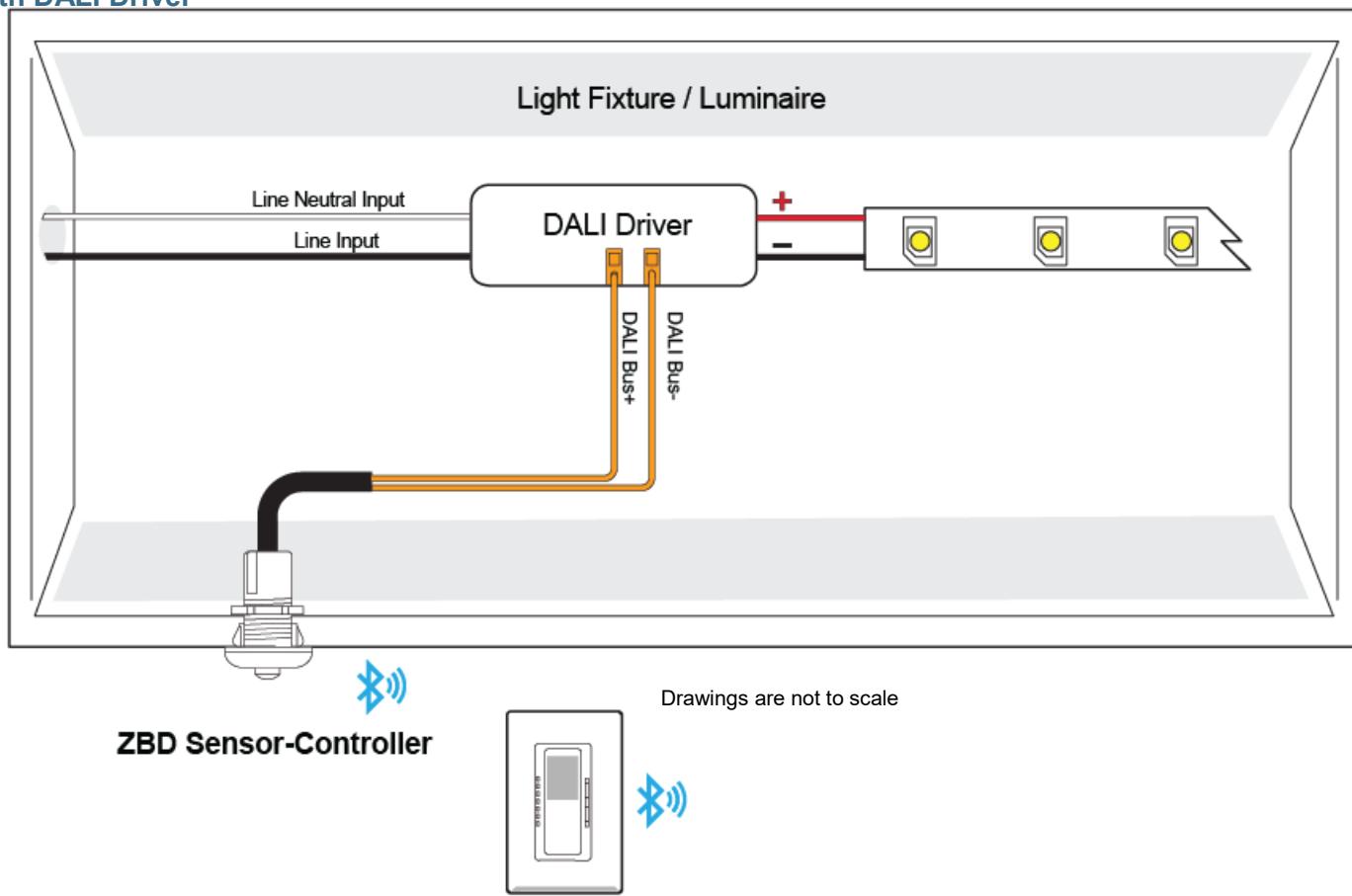
Sensor-Controller Wiring

Tab/Slot	Designation	Notes
T1	DALI Bus (Communication & Power)	Black Wire (22AWG)
T2	DALI Bus (Communication & Power)	Black Wire (22AWG)

T1   T2
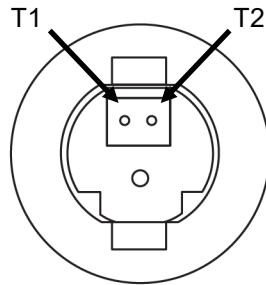
How To Order

Model No.	Description	Input Voltage	Output
PSC-ZBD-I-21N-BLE-SR/DT1	DALI Low Bay PIR Sensor-Controller for DT-1 (Emergency) Driver, with Daylight Sensor, TruBlu™Mesh Technology White Finish	DALI Bus (~16VDC)	DALI
PSC-ZBD-I-21N-BLE-SR/DT6	DALI Low Bay PIR Sensor-Controller for DT-6 (Dimmable) Driver, with Daylight Sensor, TruBlu™Mesh Technology White Finish	DALI Bus (~16VDC)	DALI
PSC-ZBD-I-21N-BLE-SR/DT8	DALI Low Bay PIR Sensor-Controller for DT-8 (Dimmable and CCT) Driver, with Daylight Sensor, TruBlu™Mesh Technology White Finish	DALI Bus (~16VDC)	DALI
PSC-ZBD-I-21N-BAB-SR/DT1	Manufactured in the USA DALI Low Bay PIR Sensor-Controller DT-1 (Emergency) Driver with Daylight Sensor, TruBlu™Mesh Technology White Finish	DALI Bus (~16VDC)	DALI
PSC-ZBD-I-21N-BAB-SR/DT6	Manufactured in the USA DALI Low Bay PIR Sensor-Controller for DT-6 (Dimmable) Driver, with Daylight Sensor, TruBlu™Mesh Technology White Finish	DALI Bus (~16VDC)	DALI
PSC-ZBD-I-21N-BAB-SR/DT8	Manufactured in the USA DALI Low Bay PIR Sensor-Controller for DT-8 (Dimmable and CCT) Driver, with Daylight Sensor, TruBlu™Mesh Technology White Finish	DALI Bus (~16VDC)	DALI

Design and specifications are subject to change without notice.