

# 0-10V Zone Controller

Smartcast Wireless 0-10V Zone Controller

Rev. Date: V3 10/21/2019

## Product Description

The Smartcast Wireless 0-10V Zone Controller enables control of one or more 0-10V dimmable luminaires through Cree Smartcast Technology. The Smartcast Wireless 0-10V Zone Controller includes ambient light, motion and environmental sensor that blends into the ceiling for a quiet look. Cree Lighting SmartCast® Technology provides extreme energy productivity and code compliance – all with installation that's so intuitive and simple, it just works. Cree Lighting SmartCast® Technology products incorporate integrated ambient and occupancy sensing and wireless communication to achieve energy savings and extended product life resulting in lower electricity bills, reduced maintenance, and an improved total cost of ownership over traditional lighting control systems. The Smartcast Wireless 0-10V Zone Controller with environmental sensor comes ready for IoT applications based on Temperature, Pressure, Humidity and VOC-Gas sensor data using Cree Smartcast API and Cree Smartcast Link.

## Performance Summary

SmartCast® Technology enabled

0-10V dimming control

Low-profile sensor module

Quick and easy installation

**Input Voltage:** 120-347V

**Limited Warranty:** 5 years<sup>1</sup>

<sup>1</sup>See <http://creelighting.com/warranty> for warranty terms

## Sensors

Sensors Included	
PIR Motion	Pressure
Ambient Light	Humidity
Temperature	VOC-Gas

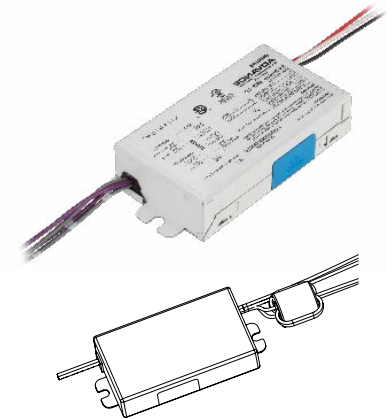
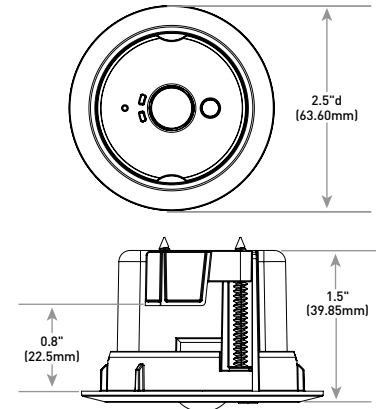
## Accessories

Field-Installed	
<b>Cree Lighting SmartCast® Technology Configuration Tool</b> CCT-CWC-1 - One required per project when CMA control is selected	<b>Cree Lighting SmartCast® Technology Wireless Dimmer</b> CWD-CWC-WH
<b>Cree Lighting SmartCast® Technology Face Plates</b> CFP-1-WH - Matching face plate, 1-gang, white CFP-2-WH - Matching face plate, 2-gang, white CFP-3-WH - Matching face plate, 3-gang, white	<b>Cree Lighting SmartCast® Technology Wireless Switch</b> CWS-CWC-WH
	<b>Cree Lighting SmartCast® Link™ Hardware Device</b> CSC-LINK-01
	<b>Cree Lighting SmartCast® Wireless Gateway</b> CSC-GW-CWC

## Ordering Information

Example: CSC-ZC-10V-CWC

CSC-ZC-10V	CWC
<b>Product</b>	<b>Options</b>
CSC-ZC-10V Cree Lighting Wireless 0-10V Interface with class 2 dimming	CWC Cree Lighting SmartCast® Technology with integral ambient, motion and environmental sensors



Dimensions	
Case Length	4.25" (108.0mm)
Case Width	2.36" (59.9mm)
Case Height	0.98" (25.0mm)
Mounting Length	4.59" (116.6mm)
Overall Length	4.98" (126.6mm)



**SMARTCAST®**  
TECHNOLOGY

US: [creelighting.com](http://creelighting.com) T (800) 236-6800 F (262) 504-5415  
Canada: [creelighting-canada.com](http://creelighting-canada.com) T (800) 473-1234 F (800) 890-7507

**CREE**  **LIGHTING**

## 0-10V Interface

### Product Specifications

#### CREE LIGHTING SMARTCAST® TECHNOLOGY

Cree Lighting SmartCast® Technology is the most intuitive and easiest to install intelligent light solution on the market. Cree Lighting SmartCast® Technology delivers up to 70% energy savings at up to half the cost of other solutions. Luminaires combine best-in-class light with onboard sensors and intelligence to deliver a better light experience. Extreme energy productivity, code compliance and a better light experience without any extra design, installation or setup work.

#### MECHANICAL SYSTEM

- Sensor module installs into ceiling tile or drywall ceiling (1/4" -5/8" thickness)
- Meets plenum requirements defined in UL508
- Can be installed into air handling space (plenum) per requirements of the National Electric Code (NEC)\*

#### ELECTRICAL SYSTEM

- **Input Voltage:** 120-347V, 60Hz
- **Dimming control output:** 0-10V dimming (meets IEC60929)
- **Switched output (max.):** 520W @ 120V, 910W @ 277V, 900W @ 347V
- 10 year power fail memory of settings
- **Load Inrush current:** Per NEMA410, for maximum switched output

#### INTEGRAL WIRELESS COMMUNICATION

- 2.4GHz wireless mesh technology with AES 128-bit encryption.
- Self assigns to quietest channel during OneButton™ Setup
- **Range:**
  - 30' (9.1m) in typical commercial applications
  - 300' (91.4m) open air without obstructions
- **Network:** 250 devices max
- **Space:** 100 devices max. per group
- 0-10V Interface is at full output until OneButton™ Setup is initiated by the Cree Lighting Configuration Tool

#### INTEGRAL MOTION SENSOR

- Passive infrared (PIR)
- **Coverage area:** Please refer to the PIR motion sensor coverage table
- **Operation:**
  - Grouped with a wall control: Luminaire will operate in vacancy mode (manual-on/auto-off)
  - Not grouped with a wall control: Luminaire will operate in occupancy mode (auto-on/auto-off)
  - Luminaires operate at full intensity until OneButton™ Setup is initiated by the Cree Lighting Configuration Tool

#### INTEGRAL AMBIENT LIGHT SENSOR

- Luminaires operate at full intensity until OneButton™ Setup is initiated by the Cree Lighting Configuration Tool
- Daylight harvesting calibration performed automatically during OneButton™ Setup

#### INTEGRAL ENVIRONMENTAL SENSOR

The sensor enables multiple Internet of Things applications based on SmartCast API.

- T, P and H: The sensor allows measurement of temperature, pressure and humidity outside the device.

Sensor	Operating Range (For 0-35C)
Temperature	0-35C
Humidity	10-90% r.H.
Pressure	200hPa-1100hPa

- **Indoor-air-quality:** The VOC-gas sensor is capable of measuring the sum of VOCs/contaminants in the surrounding air. Sensing applications include - outgassing from paint, garbage, high VOC levels due to exhaled breath and/or sweating. The data is reported in indoor air quality index (IAQ) ranging from 0 (clean air) to 500 (heavily polluted air).

### DEPLOYMENT

- Please refer to the SmartCast® Deployment Guide at [www.creelightinglink.com/exLink.asp?236135640H88E44I39771048](http://www.creelightinglink.com/exLink.asp?236135640H88E44I39771048)

### REGULATORY & VOLUNTARY QUALIFICATIONS

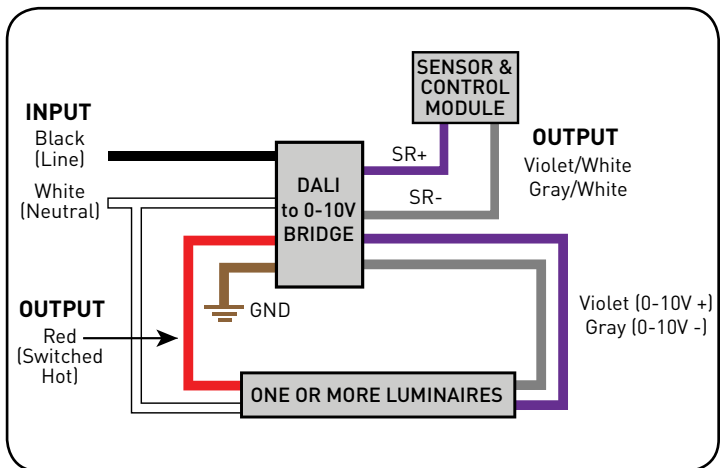
- cULus Listed
- Suitable for damp locations
- FCC certified
- IC certified
- Designed for Indoor use

\* Local codes and requirements may vary. Consult your local code

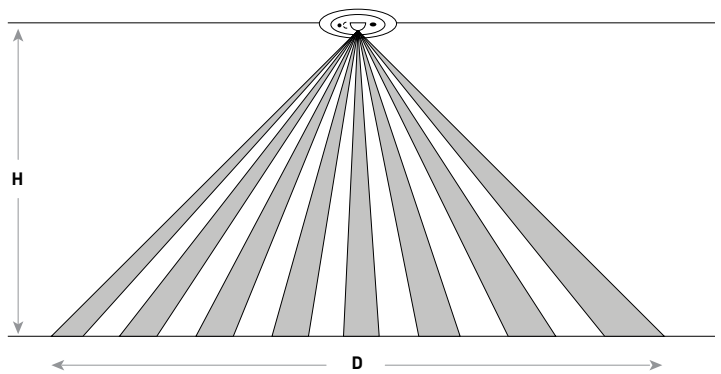
- **CA RESIDENTS WARNING:** Cancer and Reproductive Harm - [www.p65warnings.ca.gov](http://www.p65warnings.ca.gov)

### Wiring Diagram

#### 0-10V INTERFACE



### PIR Motion Sensor Coverage



Mounting Height - H (Feet)	Motion Sensor Coverage Diameter - D (Feet)		
	Sensitivity - High (Default)	Sensitivity - Medium	Sensitivity - Low
10	20	10	8
12	26	14	12
14	28	15	13
20	38	Not Recommended	Not Recommended