

## Features

- Controls 0-10V Dimming Input of One or More Inventronics LED Drivers
- Compatible with EnOcean® Wireless Devices Including Rocker-Pad Switches, Daylight and Occupancy Sensors
- Uses Driver Dim-to-Off Capability to Eliminate AC Switch or Relay
- Simple 3-Wire Connection to an Inventronics Driver Includes Power
- Low Standby Power  $\leq 0.5\text{ W}$
- Programmed Using a PC & the EnOcean Navigan Wireless Commissioner
- Convenient Mounting Options: Outside a Junction Box or Luminaire Secured by a Single Nut, or Inside a Luminaire Secured by a Bracket
- Waterproof (IP66) and UL Dry / Damp Location
- Flame Class: 5VA



## Description

The CTL-ENOC-XX is a self-contained, programmable wireless dimming controller that enables one or more Inventronics LED drivers to be controlled by wall switches, dimmers, occupancy and daylight sensors that use the EnOcean® wireless standard.



## Models and Accessories

P/N	Description	Notes
CTL-ENOC-NA <sup>(1)</sup>	Wireless commissioning tool for North America	902 Mhz
CTL-ENOC-EU <sup>(2)</sup>	Wireless commissioning tool for Europe	868 Mhz
-	Hold-Down Bracket for Flush Mounting	Not needed for through-hole mounting
NWC-300U	PC Dongle for Programming - NA	-
NWC-300	PC Dongle for Programming - EU	-

**Notes:** (1) Certificates have got UL, FCC.  
 (2) Certificates have got CE, CB and TUV.

## Input Specifications

Parameter	Min.	Typ.	Max.	Notes
Vaux Voltage	11.3 V	12 V	13.2 V	Support the maximum output current of LED driver to 100%Io
Iaux (Vaux Current)	-	34 mA	40 mA	

## General Specifications

Parameter	Min.	Typ.	Max.	Notes
Dimensions Inches (L x W x H) Millimeters (L x W x H)	1.81 x 1.26 x 0.87 62 x 33 x 22			Without the bracket
Net Weight	-	60 g	-	With the bracket and nut

**Note:** All specifications are typical at 25°C unless stated otherwise.

## Environmental Specifications

Parameter	Min.	Typ.	Max.	Notes
Operating Temperature	-20 °C	-	+70 °C	
Storage Temperature	-20 °C	-	+85 °C	Humidity: 5% RH to 100% RH

## Dimming Specifications

Parameter	Min.	Typ.	Max.	Notes
Dim+ Voltage	0V	-	10V	Vaux > 12.1V
	0V	-	(Vaux-2.1)V	9.5V ≤ Vaux ≤ 12.1V
Dim+ Sink Current	0mA	-	20mA	When dimming off, Dim+ ≤ 0.3V

**Note:** All specifications are typical at 25°C unless stated otherwise.

## Safety & EMC Compliance

Safety Category	Standard
UL/CUL(CTL-ENOC-NA)	UL8750,CAN/CSA-C22.2 No. 250.13
CE(CTL-ENOC-EU)	EN 61347-2-11, EN 61347-1, EN 62479, ETSI EN 300 220-1 V2.4.1, ETSI EN 300 220-2 V2.4.1, ETSI EN 301 489-1 V1.9.2, ETSI EN 301 489-3 V1.6.1
EMI Standards	Notes
EN 55022 <sup>(1)</sup>	Conducted emission Test & Radiated emission Test
FCC Part 15 <sup>(1)</sup>	ANSI C63.4 Class B
	This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: [1] this device may not cause harmful interference, and [2] this device must accept any interference received, including interference that may cause undesired operation.
EMS Standards	Notes
EN 61000-4-2	Electrostatic Discharge (ESD): 8 kV air discharge, 4 kV contact discharge
EN 61000-4-3	Radio-Frequency Electromagnetic Field Susceptibility Test-RS

**Note:** (1) The CTL-ENOC-XX is considered as a component that will be operated in combination with final equipment. since EMI performance will be affected by the complete installation, the final equipment manufacturers must re-qualify EMI Directive on the complete installation again.

## Interface to LED Driver

Wire Color	Name	Description
BLACK/WHITE	Vaux_in	Input from driver's 12V auxiliary power
PURPLE	Vdim_out	The dimming signal to control the driver
GRAY	Return	Return for auxiliary power and dimming signal

## Operation Notes

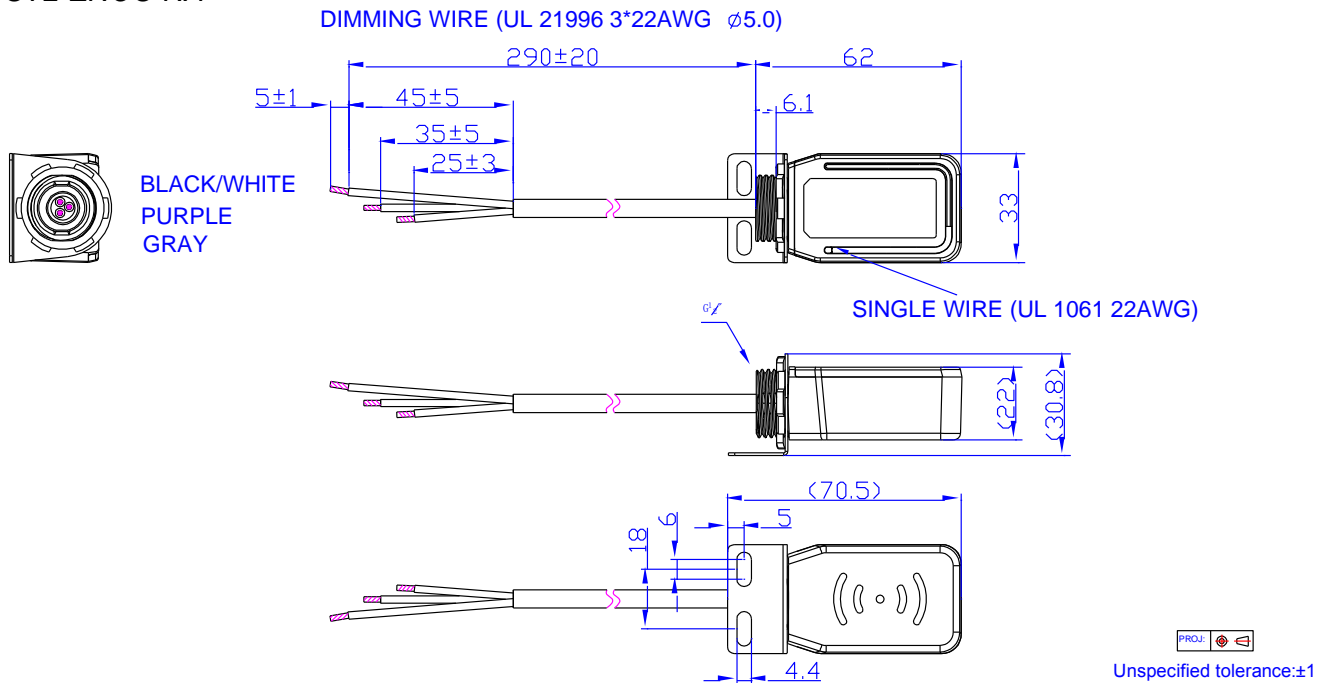
- Reset Operation. Connect Vaux (Positive) and Return (Negative) to 15.5V for 10 second will clear all settings in the CTL-ENOC-XX, including the password.
- More operation details please click here see the [User's Guide](#).

## Compatible Drivers and Devices

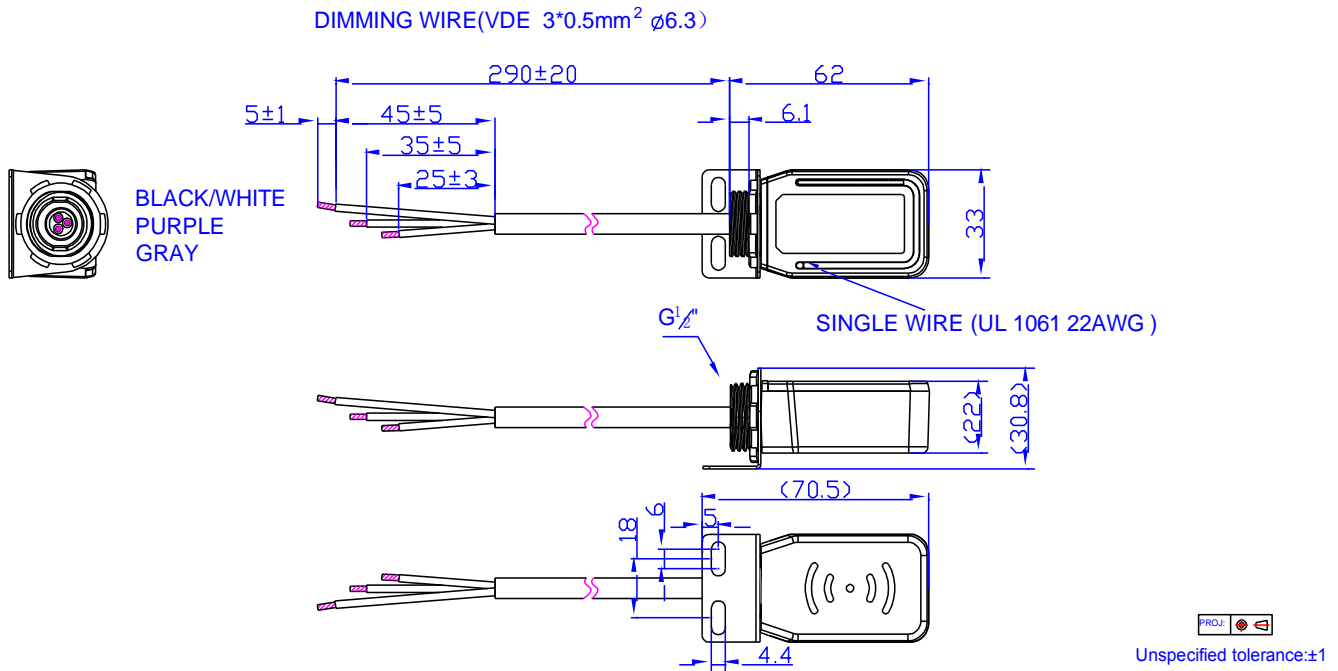
- Compatible driver list see the link below:  
[http://www.inventronics-co.com/download.aspx?c\\_kind=3&c\\_kind2=202&c\\_kind3=&c\\_kind4=&pageIndex=2](http://www.inventronics-co.com/download.aspx?c_kind=3&c_kind2=202&c_kind3=&c_kind4=&pageIndex=2)
- Compatible switches & sensors are available from several companies as listed at:  
<https://www.enocean-alliance.org/en/products/>
- For OEMs, a few white-label switches & sensors are also available:  
<https://www.enocean.com/en/products/>

## Mechanical Outline

CTL-ENOC-NA



## CTL-ENOC-EU



## RoHS Compliance

Our products comply with the European Directive 2011/65/EC, calling for the elimination of lead and other hazardous substances from electronic products.

## Revision History

Change Date	Rev.	Description of Change		
		Item	From	To
2015-12-25	A	Datasheet Release	/	/
2016-05-12	B	Models and Accessories - EMI-FILTER-01	/	Deleted
		Dim+ Sourcing Current	/	Deleted
		Note of EMI Standard	/	Added
		Compatible Driver List - ESD-096S/150S/240S/320SxxxDT	/	Added
		Notes of Compatible Driver List - Driver Series - LUD-040S/060SxxxDSF	/	Deleted
		Notes of Compatible Driver List	/	Updated
		Mechanical Outline	/	Updated
2016-07-21	C	Operation Guide	/	Updated
2017-02-05	D	Models and Accessories - CTL-ENOC-EU	/	Added
		Models and Accessories - NWC-300	/	Added
		Safety & EMC Compliance	/	Updated
		Operation Guide - Reset Voltage	15V	15.5V
		Mechanical Outline	/	Updated
		Dimming Specifications - Note of Dim+ Voltage	Vaux $\geq$ 11.5V	Vaux>11.5V
2017-04-27	E	Features - Flame Class	/	Added
		Dimming Specifications - Dim+ Voltage	/	Updated
2017-07-28	F	Features - IP Rating	/	Added
		Mechanical Outline	/	Updated
2017-08-15	G	Mechanical Outline - CTL-ENOC-NA	/	Updated