

Current Tuning Controller

HUBBELL

Rev 4-5-2018

Electrical Specif	ications
Max Operating Power:	100W (Power = input voltage x driver output current)
nput Voltage Range:	15 to 56 VDC Note: Connect only one driver output channel per CTC, minimum output must also be within this range
Max Input Current:	2.5A, not to exceed max operating power
Operating Current:	I5mA of input current is used to power internal control circuits, in addition to LED Array current Note: Not recommended for use with drivers which: have 1% dimming, dim below I5mA, or dim-to-off capability unless the minimum current allowed or programmed meets the following equation: (Minimum dimming %) > (I5mA / max current)
Output Frequency:	32kHz
_oading Specifications:	LED Array I and 2 must have the same forward voltage and cur- rent characteristics and the same number of LEDs in series and parallel. The array voltage must be within the CTC Input Voltage



Multiple drivers and CTCs may be connected in parallel to a sinking Parallel Dimming Control Capability: type dimmer as long as the total current sourced does not exceed the dimmer's maximum capacity

Max Dimming Source Current:

Use with sink-style dimmers. Some low/high end trim adjustment may be required. Compatible with:

Dimmer Compatible With:

I. HCS NX system

2. Lutron NTFTV, NFTV, DVTV, DVSTV

3. Wattstopper ADF120/277

I. Pass & Seymour PS 010 120V

2. Lutron NTSTV 3. Leviton IP710, AWSMT-7, AWRMG-7 Dimmer Not Compatible With:

3. Wattstopper CD4FB 4. Lightolier V2000FAMU 5. Synergy ISDBC 120/277

12 VDC Max Dimming Voltage:

Protection at Dimming Output: Isolated digital transformer

Dimmer voltage >8.5Vdc forces 100% input current to output LED Functional Dimming Input Range:

Dimmer voltage <1.5Vdc forces 100% input current to output LED

Environmental Specifications

Operating Temperature: (Measured at Tc Point)	-20°C – +50°C
Storage Temperature:	-40°C – +90°C
Humidity:	5% – 95%

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Mechanical Specifications			
Length:	4.16" (105.66mm)		
Width:	1.392" (35.36mm)		
Height:	0.947" (24.07mm)		
Mounting:	Inside fixture (with tape) or $\frac{1}{2}$ " knockout (with Mounting Adapter)		
Wire Connections:	Push in type, accepts 14-20AWG solid/stranded wire		
Lifetime:	Calculated Lifetime > 50,000 Hours @ rated ambient (Contains no electrolytic capacitors)		
Weight:	1.6 oz (45.4g)		

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Applications

- White Light Mixing (Color tuning)
- Directional Mixing (Up/Down ratio tuning)
- · Warm Dimming
- Circadian Rhythm Control (requires scheduling-control dimmer)

Overview

- · Class 2 operation
- 15V minimum, 2.5A max
- Two LED Array outputs
- · Push-in connectors
- · Mount inside fixture or on a J-box
- 0-10V dimming with isolated inputs

UL recognized component	
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93060818 CTC Current Tuning Contr	Part	Model	Description
	93060818	CTC	Current Tuning Controller
93066006-01 CTC-M Mounting Adapter	93066006-01	CTC-M	Mounting Adapter

Safety Cert.	Standard
UL/CSA:	CSA C22.2 No. 250.13-14 & UL 8750
Hazardous Substance:	RoHS Compliant



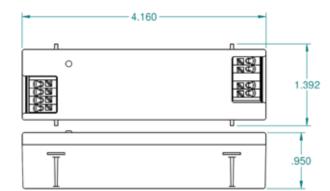


Current Tuning Controller



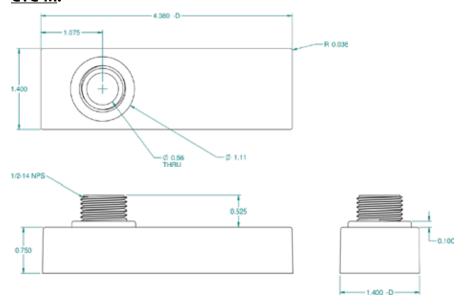
Dimensions

CTC:

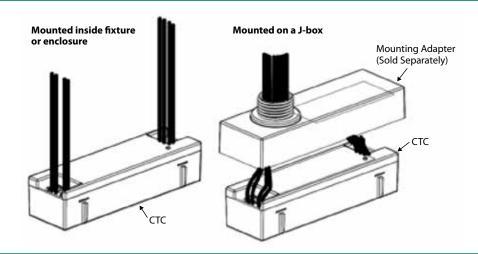


Note:The CTC needs to be appropriately secured in the luminaire per end user requirements.

CTC-M:



Mounting





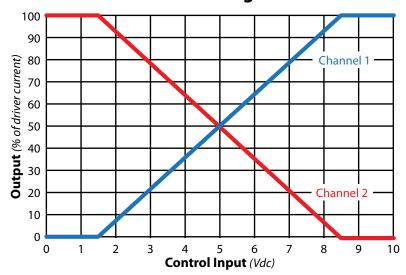


Current Tuning Controller



Tuning Characteristics:

Current Tuning Profile



Minimum undimmed current for driver		
Dim to Off	Not Recommended	
1%	1500mA	
5%	300mA	
10%	I50mA	
Other	(Minimum dimming %) > (15mA / max current)	

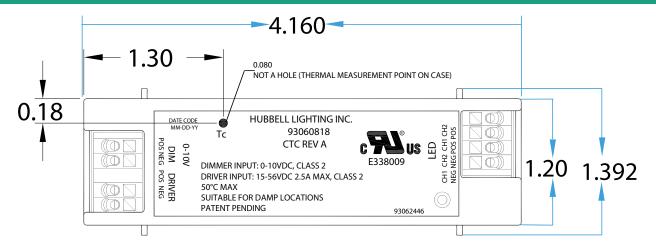
Note: The CTC needs to be appropriately secured in the luminaire per end user requirements.

LED Array Status, based on 0-10V input voltage

0-10V Dim Control	LED Ch I Output	LED Ch2 Output
High (~8.5V)	High (~100% output)	Low (~0% output)
Low (~1.5V)	Low (~0% output)	High (~100% output)

- * For tunable white application use highest CCT on Ch1. See wiring diagram 1.
- * For dim to warm application use highest CCT on Ch1. See wiring diagram 2.

Tc Point Location:

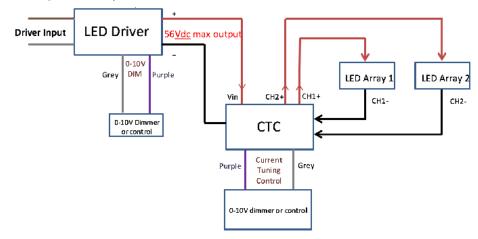






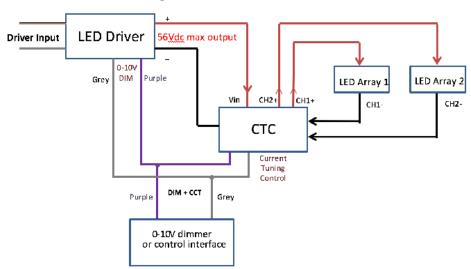
Controlling CTC and LED driver independently:

- 1st Wall Dimmer connects to Driver and controls brightness (intensity).
- 2nd Wall Dimmer connects to CTC and controls color balance.



Using one common dimmer for CTC and LED Driver together:

 Use a single Wall Dimmer connected to both Driver and CTC to create a Warm Dimming fixture



Connector Descriptions:

