

**Electrical Specifications** 

Max Operating Power:

# Current Tuning Controller

100W (Power = input voltage × driver output current)

(CTC)

Thax operating rower:	foott (fower input totage x driver output current)		
Input Voltage Range:	I5 to 56 VDC <b>Note:</b> 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:	ISmA of input current is used to power internal control circuits, in addition to LED Array current <b>Note:</b> Not recommended for use with drivers which: have 1% dimming, dim below ISmA, or dim-to-off capability unless the minimum current allowed or programmed meets the following equation: (Minimum dimming %) > (ISmA / max current)		
Output Frequency:	32kHz		
Loading 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 Range.		
Dimming Character	eristics		
Parallel Dimming Control Capability:	Multiple drivers and CTCs may be connected in parallel to a sinking type dimmer as long as the total current sourced does not exceed the dimmer's maximum capacity		
Max Dimming Source Current:	ImA		
Dimmer Compatible With:	Use with sink-style dimmers. Some low/high end trim adjustment may be required. Compatible with: I. HCS NX system 2. Lutron NTFTV, NFTV, DVTV, DVSTV 3. Wattstopper ADFI 20/277		
Dimmer Not Compatible With:	I. Pass & Seymour PS 010 120V 2. Lutron NTSTV 3. Leviton IP710, AWSMT-7, AWRMG-7 3. Wattstopper CD4FB 4. Lightolier V2000FAMU 5. Synergy ISDBC 120/277		
Max Dimming Voltage:	12VDC		
Protection at Dimming Output:	Isolated digital transformer		
Functional Dimming Input Range:	Dimmer voltage >8.5Vdc forces 100% input current to output LED Channel I Dimmer voltage <1.5Vdc forces 100% input current to output LED Channel 2		
Environmental Sp	ecifications		
Operating Temperature: (Measured at Tc Point)	-20°C – +50°C		
Storage Temperature:	-40°C - +90°C		
Humidity:	5% – 95%		
Mechanical Specifi	cations		
Length:	4.16'' (105.66mm)		
Width:	1.392'' (35.36mm)		
Height:	0.947'' (24.07mm)		
Mounting:	Inside fixture (with tape) or ½" knockout (with Mounting Adapter)		
Wire Connections:	Push in type, accepts 14-20AWG solid/stranded wire		
	Calculated Lifetime > 50,000 Hours @ rated ambient (Contains no electrolytic capacitors)		
Lifetime:			



- 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



Part	Model	Description	
93060818	CTC	Current Tuning Controller	
93066006-01	CTC-M	Mounting Adapter	
		Class 2: US/Canad	

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

Current

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# Current Tuning Controller

1.392

.950

## Dimensions

<u>CTC</u>:



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

# <u>CTC-M</u>:



## Mounting





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# Current Tuning Controller

**Tuning Characteristics:** 



Minimu	m undimmed current for driver
Dim to Off	Not Recommended
1%	1500mA
5%	300mA
10%	I 50mA
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:



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# **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:



## **Connector Descriptions:**



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