



Features

- It can measure power and internal temperature
- The date can be read by ESI port
- 2 CHs 0-10V dimming signals or digital dimming commands are buffered output
- 0-10V output interfaces are designed to sink or source current up to 25mA
- 0-10V analog signal (default) or digital command dimming method can be selected through ESI
- Zero-crossing switching function for AC load latching relay
- AC load latching relay to minimize the standby power consumption
- AC output: 8A Max. @ 120Vac, 1385VA Max. @ 175-277Vac
- Over current protection when load connects to Switched, and the failure information is recorded in NVM
- Built-in ESI PSU, 15V, 50mA
- IP24 protection rating
- For luminaries of protection class II
- 0-10V dimming output and ESI interfaces are both compliant with SELV
- Communication protocol compatible with Enlighted Sensor Interface [ESI] Definition Rev 4.8
- The full-length mounting or the break-off tab can be removed to create a smaller form factor for a reduced footprint

AC Load Latching Relay Specification

- One (1) SPST Latching Relay
- 1 Million Cycles Minimum Mechanical Lifetime
- Operate Time: 10mS
- Maximum Switching Load Voltage: 277Vac
- Maximum Switching Load Current: 8A @ 120Vac



Class P

Benefits

- One SKU supports multiple fixture types
- Current states available to a variety of popular LED engines
- Can be used for a variety of lighting fixture and troffers
- ESI interface for powering sensor, wireless device etc.

Electrical Specification

All parameters not specially mentioned are typical and measured at 230Vac, rated current input and 25°C of ambient temperature.

Ordering Information

Model Number	CU-4A-FM-B
Full Product Name	ESI Controlgear

Input Information

Line Voltage	100 ~ 277Vac
Line Current	0.1A Max. (AC output power is not included)
Line Frequency	50 / 60Hz
Min. Operational Mains Voltage	90Vac
Max. Operational Mains Voltage	300Vac
Inrush Current	Cold Start \leq 60A (twidth = 50us measured at 10% Ipeak) @ 277Vac, Per NEMA 410

Output Information

Analog 0-10V Interface Max. Current	Sourcing / Sinking \leq 25mA
ESI AUX VCC	Rated 15Vdc (deviation 13Vdc to 17Vdc) @ 50mA
AC Output Current	8A/120Vac, 6A/230Vac, 5A/277Vac
AC Output OCP	8.5A lasts more than 20s when load connects to Switched, Latch Mode, Recover after Power Cycle
AC Output Inrush Current	180A, 10ms (max.)

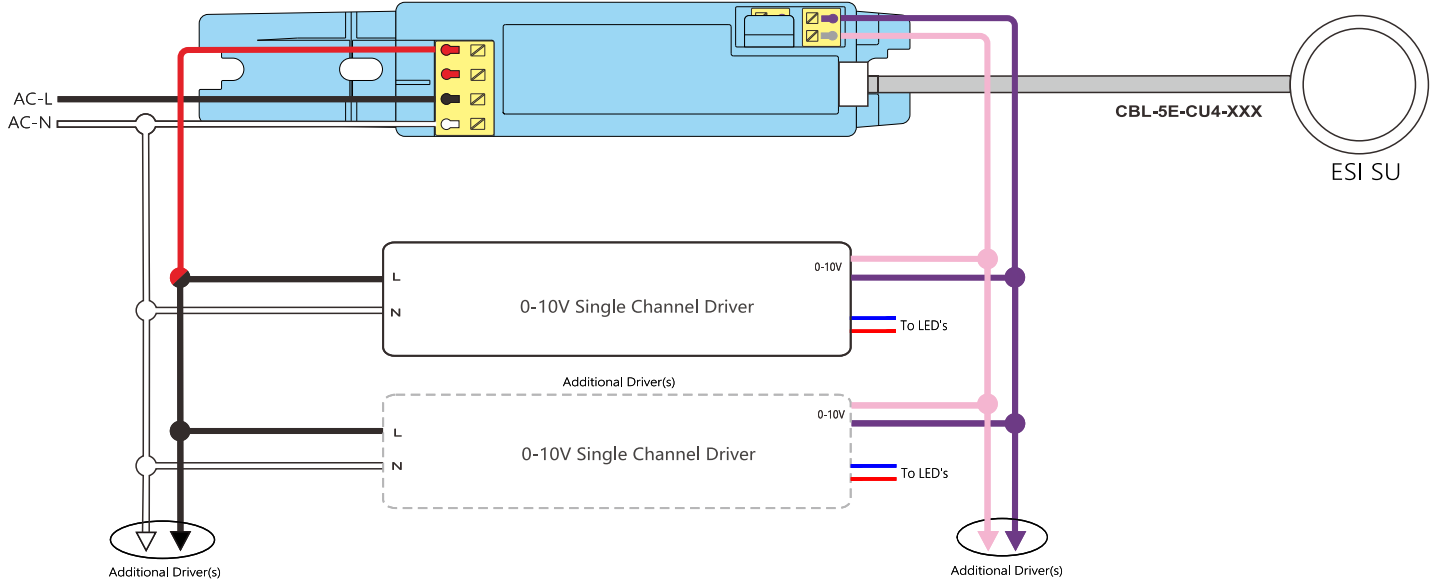
Environment & Approbation

Protection Rating	IP24
Ambient Temp Range	-20°C to +70°C
Max. Case Temperature[Tcase]	80°C for Maintaining Specified Life Expectancy & 85°C for CE Safety Features
Operating Condition	Damp and dry
Safety Standards	EN61347-1, EN61347-2-11
EMC Emission	Compliance to EN55015, EN61000-3-2, EN61000-3-3
EMC Immunity	Compliance to EN61000-4-2,3,4,5,6,8,11, EN61547, surge immunity Line-Line 1KV
Isolation	Refer to table
Audible Noise	< 24dB Class A

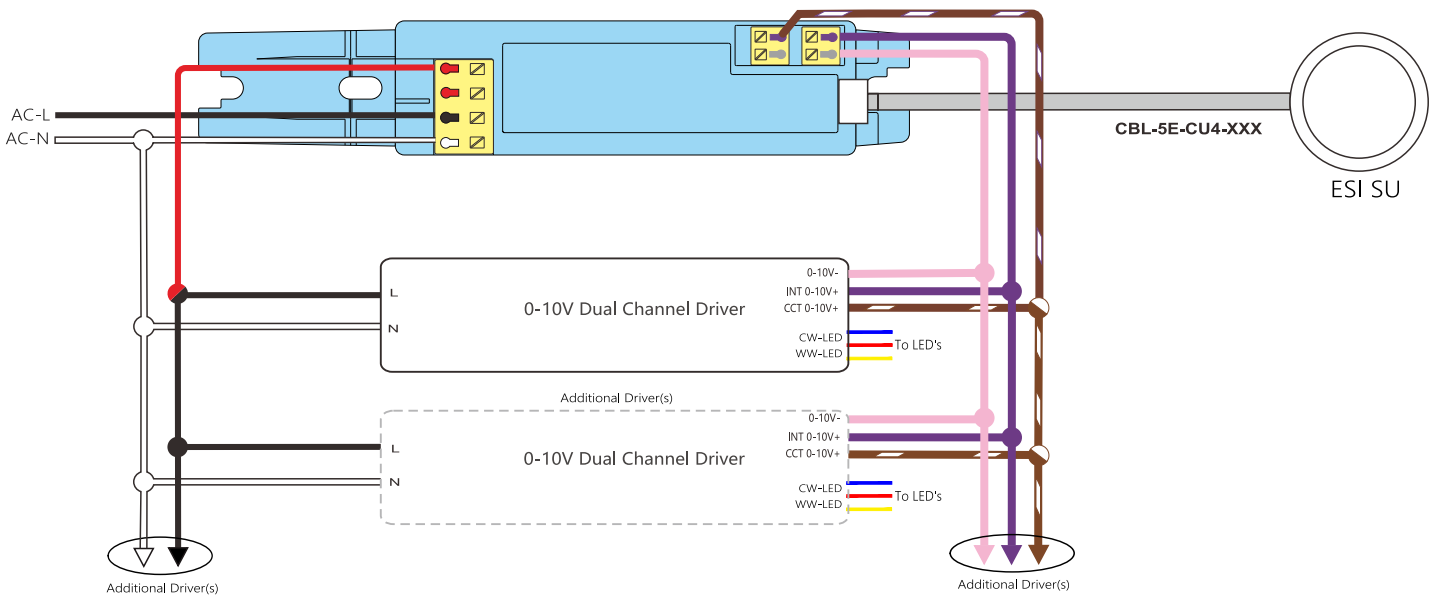
Isolation

Isolation	AC Input	0-10V output	ESI port	AC output
AC Input	/	2U+1KV	2U+1KV	Not Isolation
0-10V output	2U+1KV	/	Not Isolation	2U+1KV
ESI port	2U+1KV	Not Isolation	/	2U+1KV
AC output	Not Isolation	2U+1KV	2U+1KV	/

ESI sensor to single channel 0-10V driver line diagram



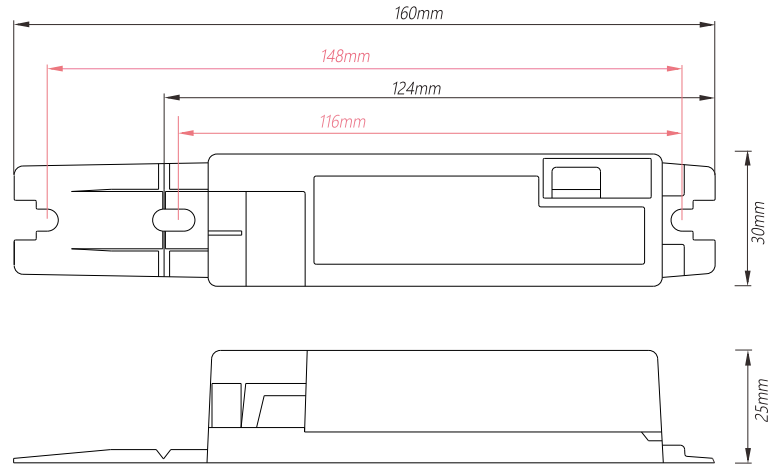
ESI sensor to dual channel 0-10V driver line diagram



ESI CU Series

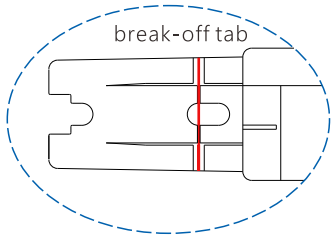
Dimensions & Weight

	inch	mm
Case Length	6.3"	160 (with tab)
	4.88"	124 (without tab)
Case Width	1.18"	30
Case Height	0.98"	25
Mounting Length	5.83"	148 (with tab)
	4.57"	116 (without tab)
Weight	3 oz / 85 grams	



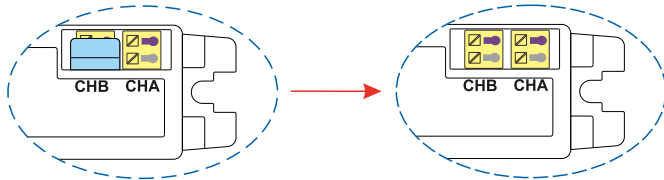
Create a smaller form factor for a reduced footprint

If removing the break-off tab along the red line below in the picture, the case length will reduce from 160mm to 124mm, and the case width and height remain the same.



Remove the baffle of channel B

Use tool to remove the baffle on channel B as shown below. (ChA: Intensity, ChB: CCT)



Cable Specification

- Install in accordance with National and Local Electrical Codes.
- Input and output cable requirements preparation for input and output.

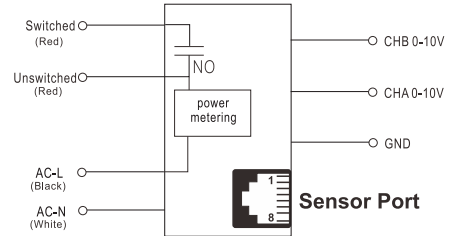


Solid conductor:

Input: 0.5...1.5mm² / 20...15 AWG

Output: 0.5...0.75mm² / 20...18AWG

Circuiting



Note: The power output from Unswitched and Switched are both metering.

Label

12-18AWG 0.31" 0.8-3.3mm ² 8mm	AC in: 100-277V~ 50/60Hz	Lighting Control	16-24AWG 0.31" 0.2-1.3mm ² 8mm	B (+)Violet CH (-)Gray	A CH
Switched (Red)	AC out: 960VA@120V~ 1385VA@175-277V~	Model CU-4A No: CU-4A-FM-B			
Unswitched (Red)					
AC-L (Black)	ETL Class P CE UK FC CAN ICES-5(B)/NMB-5(B)	Intertek 5018360	tc: 85°C ta: 70°C		
AC-N (White)			Made in PRC	0-10V Dimming	Enlighted sensor only SELV/Class2 Output 15Vdc

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