

Features

- It can measure power and internal temperature
- 0-10V output interfaces are designed to sink or source current up to 25mA
- The date can be read by DALI port
- DiiA/Zhaga connectivity extensions DT49, DT50, DT51, DT52
- Selection of the desired device type via operating mode
0x00: IEC 62386-102 standard mode
0x80: manufacturer specific mode, DT6, DT8 Tc, DT17 supported (default)
- Translate DALI dimming commands to 2 CHs analog 0-10V output (CHA: Intensity, CHB: CCT)
- The AC load relay can be switched off when dimming off
- Zero-crossing switching function for AC load relay
- DC signal relay will short-circuit DALI interface and physically disconnect 0-10V output interfaces in case of power loss
- Built-in DALI PSU, 15V , 55mA (programable to 200mA)
- AC output: 8A Max., 1385VA Max.
- Over current protection when load connects to Switched, and the failure information is recorded in NVM
- IP65 protection rating
- For luminaries of protection class II
- DALI / 0-10V interface is compliant with SELV

AC Load Relay Specification

- One (1) SPST Continuous Duty Coil
- 1 Million Cycles Minimum Mechanical Lifetime
- Operate Time: 15mS
- Maximum Switching Load Voltage: 347Vac
- Maximum Switching Load Current: 8A

DC Signal Relay Specification

- One (1) DPDT Continuous Duty Coil
- 1 Million Cycles Minimum Mechanical Lifetime
- Operate Time: 3mS
- Maximum Switching Load Voltage: 30Vdc
- Maximum Switching Load Current: 1A



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
- DALI bus PSU output for powering sensor, wireless device etc.

DALI CU Series

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	DALICU04-EN-2
Full Product Name	DALI Controlgear

Input Information

Line Voltage	100 ~ 347Vac
Line Current	0.1A Max. (AC output power is not included)
Line Frequency	50 / 60Hz
Min. Operational Mains Voltage	90Vac
Max. Operational Mains Voltage	370Vac
Inrush Current	Cold Start $\leq 70A$ (twidh = 50us measured at 10% Ipeak) @ 347Vac, Per NEMA 410

Output Information

Analog 0-10V Interface Max. Current	Sourcing / Sinking $\leq 25mA$
DALI Output Voltage Range	14Vdc to 18.5Vdc
DALI Open Circuit Voltage	18.5Vdc Max.
DALI Max. Output Voltage	18.5Vdc
DALI Typ. Output Voltage	15Vdc
DALI Min. Output Voltage	14Vdc
DALI Guaranteed Output Current	55mA (programmable to 200mA)
DALI Max. Output Current	62mA (210mA)
DALI Max. Output Power	1.0W (3.0W)
Protections	Short circuit protection of DA+ / DA-
AC Output Current	8A/120Vac, 6A/230Vac, 5A/277Vac, 4A/347Vac
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.)

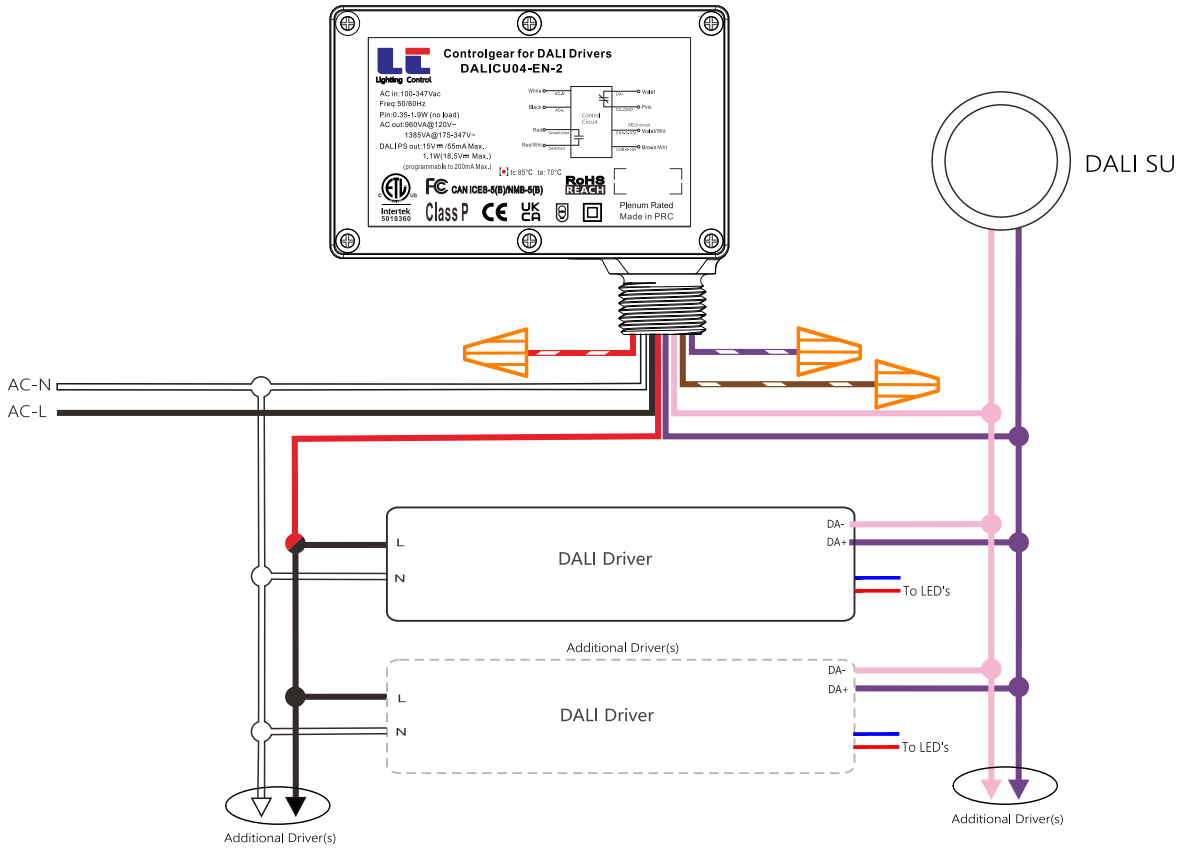
Environment & Approbation

Protection Rating	IP65
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. For Indoor Use Only. Plenum Rated
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

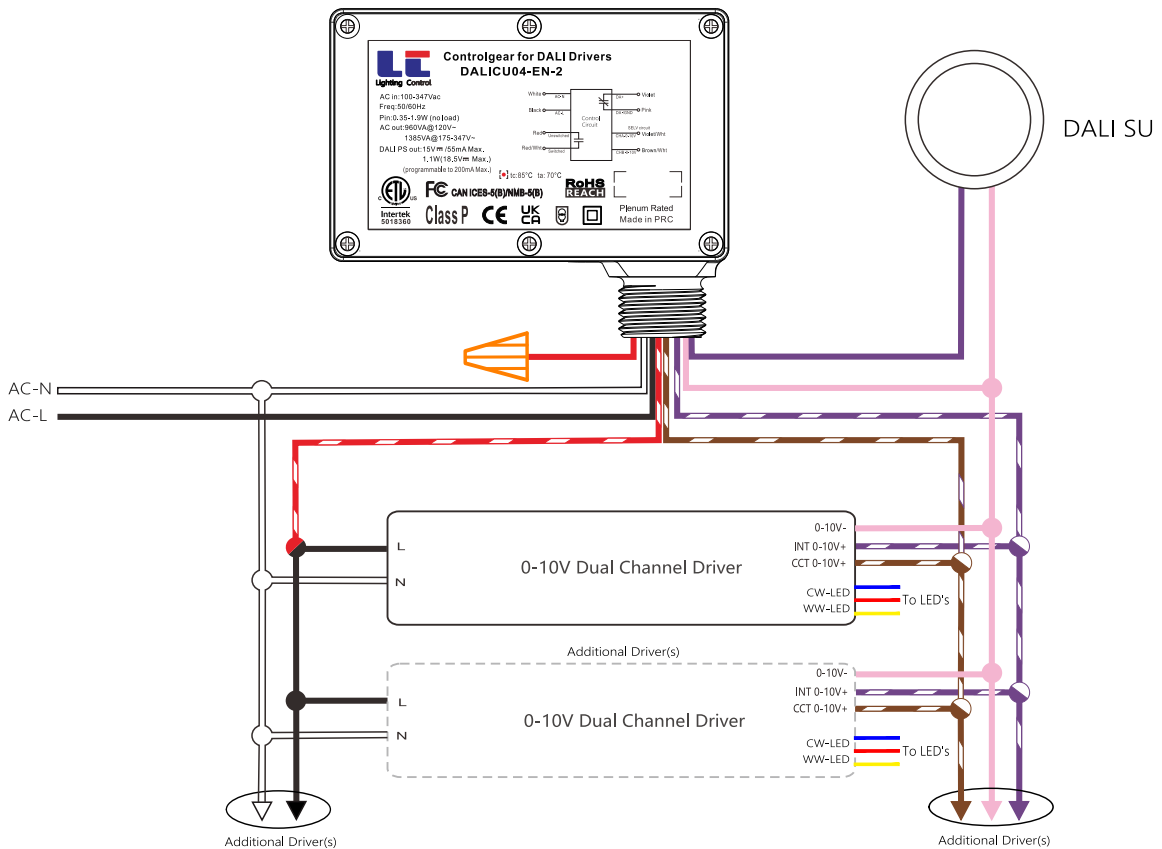
Isolation

Isolation	AC Input	DALI	0-10V output	AC output
AC Input	Not applicable	2U+1KV	2U+1KV	Not Isolation
DALI	2U+1KV	Not applicable	Not Isolation	2U+1KV
0-10V output	2U+1KV	Not Isolation	Not applicable	2U+1KV
AC output	Not Isolation	2U+1KV	2U+1KV	Not applicable

DALI sensor to DALI driver wiring diagram



DALI sensor to 0-10V driver wiring diagram



DALI CU Series

Functional Description

DALI CU is developed according to IEC 62386-101, 102, 207, 209, 218, part 250-253. DALI CU is a power supply, rated at 15Vdc and providing 55mA (200mA) current.

- With the provided 55mA current up to 25 DALI loads can be connected.
- With the programmable 200mA current up to 100 DALI loads can be connected.

- Standard DALI loads are specified to consume max. 2 mA
- Control devices may consume more than 2 mA. If such devices are connected to the DALI CU, the amount of possible connected devices will be reduced.
- This has to be considered during the application design.

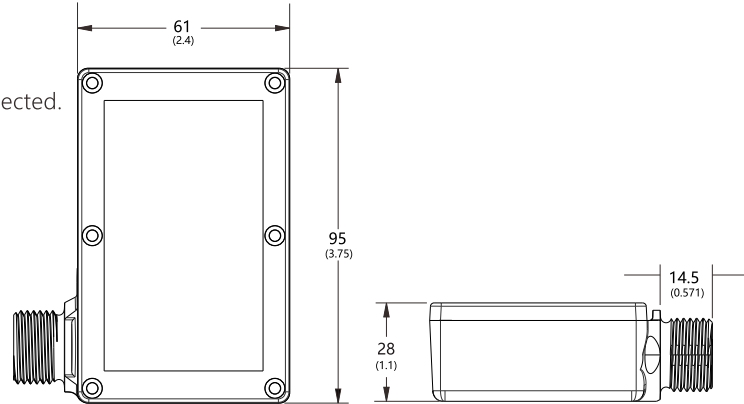
Installation Tips

- Individual DALI circuits must not exceed 55mA (200mA).
- The DALI signal wires must not drop more than 2V.
- Install in accordance with National and Local Electrical Codes.

Max. output cable length for DALI

Material	Cross- section	Max. output cable length	
		25 °C	75 °C
Copper	0.20 mm ²	43 m	35 m
	0.50 mm ²	110 m	90 m
	0.75 mm ²	165 m	136 m
	1.00 mm ²	220 m	183 m
	1.50 mm ²	290 m	273 m
Aluminium	0.20 mm ²	23 m	19 m
	0.50 mm ²	62 m	52 m
	0.75 mm ²	100 m	84m
	1.00 mm ²	132 m	111 m
	1.50 mm ²	200 m	167 m

Dimensions & Weight



	inch	mm
Case Length	3.75"	95
Case Width	2.4"	61
Case Height	1.1"	28
Weight	0.55lb/0.25Kg	

Wire Definition

Color	Cable	Length	Connector definition	Color	Cable	Length	Connector definition
White	18AWG	12"/304mm	AC Input Neutral	Violet	18AWG	12"/304mm	DA+
Black	18AWG	12"/304mm	AC Input Line	Pink	18AWG	12"/304mm	DA- / GND
Red	18AWG	12"/304mm	AC-L out1 (Unswitched)	Violet/Wht	18AWG	12"/304mm	CHA 0-10V+
Red/Wht	18AWG	12"/304mm	AC-L out2 (Switched)	Brown/Wht	18AWG	12"/304mm	CHB 0-10V+

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

Label

LC **Controlgear for DALI Drivers**
DALICU04-EN-2

Lighting Control

AC in: 100-347Vac
Freq: 50/60Hz
Pin: 0.35-1.9W (no load)
AC out: 960VA@120V~
1385VA@175-347V~
DALI PS out: 15V= /55mA Max.
1.1W(18.5V= Max.)
(programmable to 200mA Max.)

tc: 85°C ta: 70°C

RoHS REACH

Class P **CE** **UK** **UKRA**

Plenum Rated
Made in PRC

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