

Features

- It can measure power and internal temperature
- Built-in DALI PSU, 15V , 55mA (programmable to 200mA)
- AC output: 12A Max., 1850VA Max.
- IP24 protection rating
- For luminaries of protection class II
- DALI 2-wire sensor (highest priority) supported
- The date can be read by DALI port
- DiiA/Zhaga connectivity extensions DT49, DT50, DT51, DT52
- The AC load relay can be switched off when dimming off
- AC load relay will switch off AC output when dimming level is set to 0
- Zero-crossing switching function for AC load relay

AC Load Relay Specification

- One (1) SPDT Continuous Duty Coil
- 1 Million Cycles Minimum Mechanical Lifetime
- Operate Time: 15mS
- Maximum Switching Load Voltage: 347Vac
- Maximum Switching Load Current: 16A

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
- AUX Power and 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-5
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. Mains Voltage Operational	90Vac
Max. Mains Voltage Operational	370Vac
Inrush Current	Cold Start $\leq 70A$ (twidth = 50us measured at 10% Ipeak) @ 347Vac, Per NEMA 410

Output Information

Analog 0-10V Interface Current Max.	Sourcing / Sinking $\leq 25mA$
DALI Output Voltage Range	14Vdc to 18.5Vdc
DALI Open Circuit Voltage Max.	18.5Vdc
DALI Output Voltage Max.	18.5Vdc
DALI Output Voltage Typ.	15Vdc
DALI Output Voltage Min.	14Vdc
DALI Guaranteed Output Current	55mA (programmable to 200mA)
DALI Max. Output Current	62mA (210mA)
DALI Max. Output Power	1.0W (3.0W)
ESI AUX VCC	Nominal 15Vdc (deviation 13Vdc to 17Vdc) @ 50mA
Protections	Short circuit protection of DA+ / DA-
AC Output Current	12A/120Vac, 8A/230Vac, 6.5A/277Vac, 5A/347Vac
AC Output Inrush Current	180A, 10ms (max.)

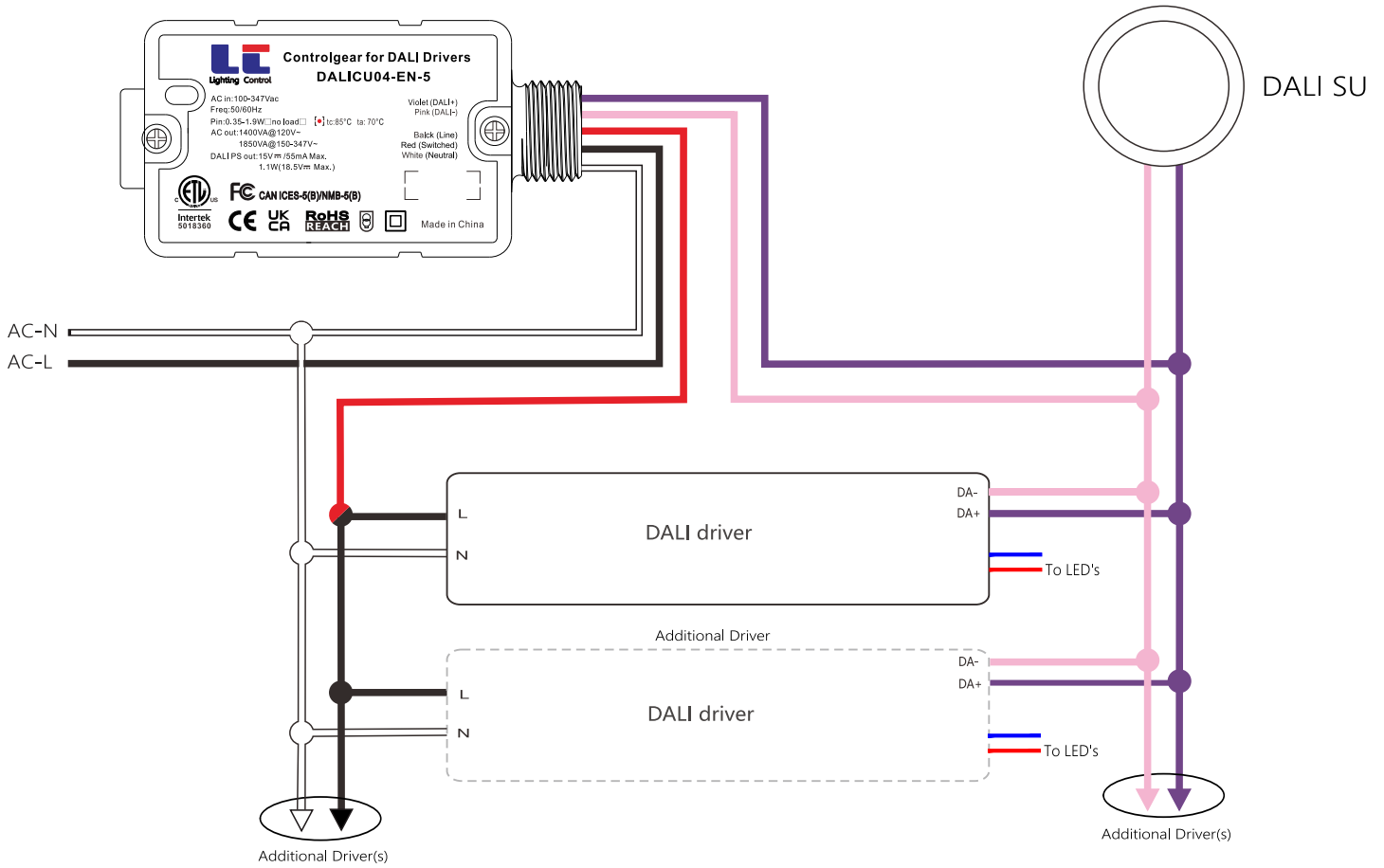
Environment & Approbation

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

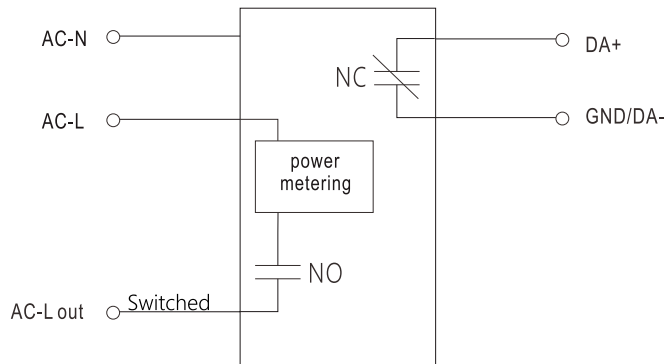
Isolation

Isolation	AC Input	DALI	AC output
AC Input	Not applicable	2U+1KV	Not Isolation
DALI	2U+1KV	Not applicable	2U+1KV
AC output	Not Isolation	2U+1KV	Not applicable

DALI sensor to DALI driver wiring diagram



Circuiting



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.

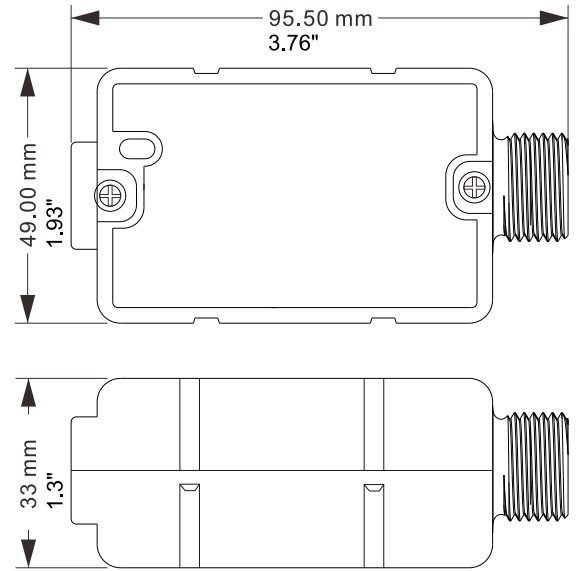
Installation Tips

- 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

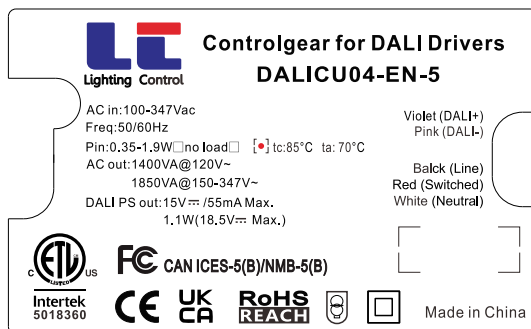


	inch	mm
Case Length	3.76"	95.5
Case Width	1.93"	49
Case Height	1.3"	33
Weight	0.37lb/0.17Kg	

Wire Definition

Color	Cable	Length	Connector definition	Color	Cable	Length	Connector definition
Black	18AWG	12"/304mm	AC Input Line	Pink	18AWG	12"/304mm	DALI- / GND
White	18AWG	12"/304mm	AC Input Neutral	Violet	18AWG	12"/304mm	DALI+
Red	18AWG	12"/304mm	AC-L out (Switched)				

Label



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