

LF-SCD010C DALI to PWM Converter

Product Description

LF-SCD010C is a non-isolated signal converter, transforming the DALI signal to PWM signal. It conforms to the DALI protocol IEC 62386-101, 102, 103, 207. Its input voltage ranges from 10Vdc to 22.5Vdc. One converter can control one LED driver with strong output PWM signal. It flexibly fits in many different DALI lighting system designs.

Feature

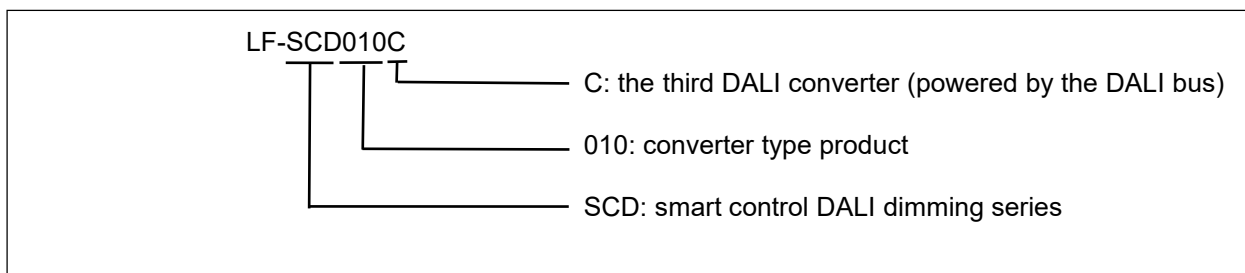
- Output PWM dimming signal; compatible with PWM dimmable driver; high performance, high reliability
- Dimming range 10%-100% (dim to off)
- DALI dimming function; The logarithmic dimming mode and linear dimming mode can be selected via DALI interface.
- IP67 rating; waterproof casing
- Warranty: 5 yrs (Please refer to the warranty description.)

Application

- Plant lighting
- Indoor office lighting
- Decorative lighting
- Commercial lighting
- Residential lighting



Product Naming



Electrical Characteristic

Model		LF-SCD010C
Output	Output PWM Range	10%-100% (dim to off)
	Output PWM Voltage	10Vdc
	Output PWM Source Current	5mA (Max.)
	Output PWM Tolerance	±5%
	Output Frequency	1KHz
	Temperature Drift	±5%
	Start-up Time	<1S@16Vdc, DALI typical voltage
Input	Input Voltage	10-22.5Vdc
	Input Current	≤6mA (not during transforming)
Environment Description	Working Temperature	-30°C - +60°C
	Working Humidity	20-90%RH (no condensation)
	Storage Temperature & Humidity	-30°C - + 60°C (six months under class I environment); 10-90%RH (no condensation)
	Atmospheric Pressure	86 - 106KPa
Safety and Electromagnetic Compatibility	Certification	Meet standards of the CE certification
	Electromagnetic Emission	Conform to EN55015
Others	IP Rating	IP67
	RoHS	RoHS 2.0 (EU) 2015/863
	Warranty	5 years
	Implementation Standards of DALI	IEC 62386-101, 102, 103, 207

Remarks	<ol style="list-style-type: none"> 1. It is recommended that customer should install overvoltage and undervoltage protection devices and surge protection devices to ensure safety before connecting to electricity. 2. Disconnect the DALI input before connecting to the PWM dimmable drivers. Wire them only when they are not powered on. The length of output PWM connection wire should not exceed 20m, and wiring should avoid circular winding. The maximum quantity of parallel PWM dimmable drivers is 38pcs. 3. The PC cover, housing, end caps and other parts of the LED driver inside the LED light fixture must conform to UL94-V0 flammability standard or above. 4. As accessories, the converter and LED driver are not the only factors determining the EMC performance of the LED light fixture. The structure and the wiring of the light fixture are also relevant. Thus it's strongly recommended the LED light fixture manufacturer re-confirms the EMC of the whole LED light fixture. 5. Unless otherwise stated, the parameters mentioned above were test results under the ambient temperature of 25°C, humidity of 50%, DALI signal input and 100% load.
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Dimming Instruction

Description of Terminals

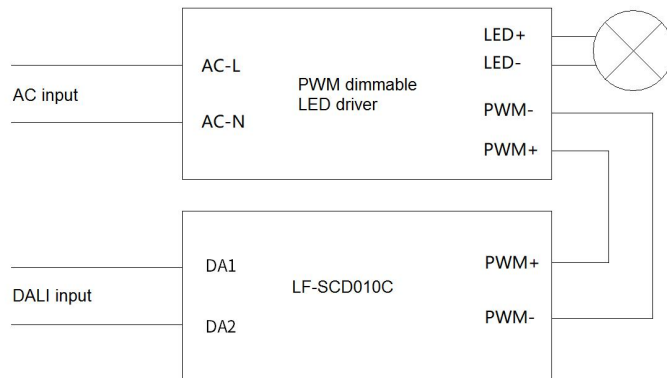
INPUT

DA1	DA1 dimming input terminal
DA2	DA2 dimming input terminal

OUTPUT

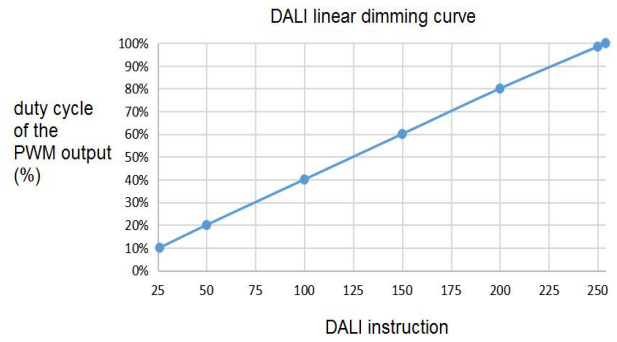
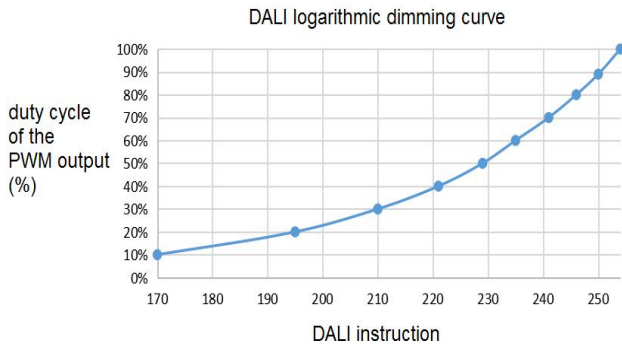
PWM+	PWM signal output terminal +
PWM-	PWM signal output terminal -

Wiring Diagram of DALI Dimming

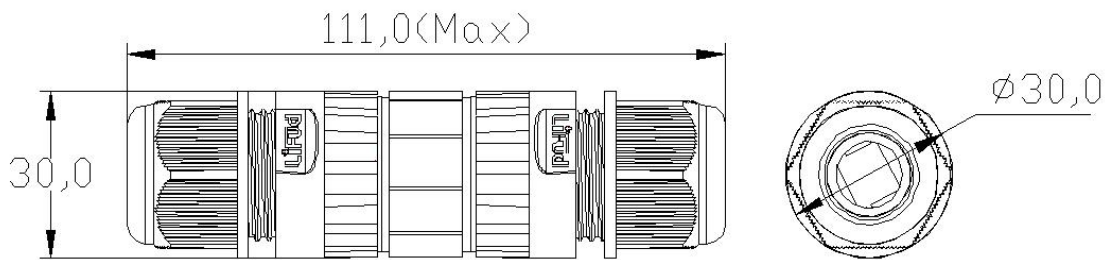


Instruction of DALI Dimming

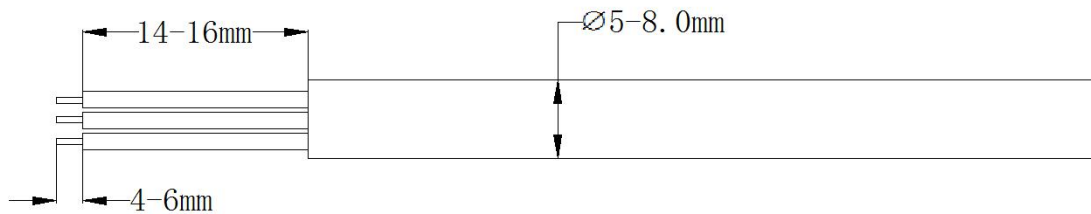
- * The default setting is 100%, the maximum output.
- * Connect the DALI signal to DA1 and DA2 terminals.
- * The DALI protocol includes 16 groups and 64 IP addresses.
- * The minimum dimming depth of the DALI dimming is 10%.



Structure & Dimension (unit: mm)



- * The wire outlets are compatible with two-core or three-core cables of 22# to 16# rubber or sheathed wires. (Expose 4mm to 6mm wire core. Peel 14mm to 16mm sheath. Use cables with the diameter of 5mm to 8mm.)



Label



Packaging Specification

Model	LF-SCD010C
Individual Packaging Size	35×35×116mm (L×W×H)
Box Size	400×325×140mm (L×W×H)
Quantity	90 pcs/layer; 1 layer/ctn; 90 pcs/ctn
Weight	0.068 kg /PC; 6.6kg±5%/ctn

Transportation & Storage

1. Transportation

- * Transportation means: vehicles, boats and aircraft.
- * During transportation, there should be awnings for rain protection and sun protection. Civilized loading and unloading are required. There should be no severe vibration or impact.

2. Storage

- * Storage in accordance with the provisions of the Class I environment. Products which have been stored for more than six months must be re-inspected. Use them only when they can pass the re-inspection.

Attention

- * Due to the diameter differences of the cables used by customers, there may be gaps between nuts and studs during assembly. It's a normal phenomenon. To ensure the waterproof function, please make sure the torque is within 2.8-3.7N/m.
- * Use this product according to the specifications, please. Otherwise there may be malfunction.
- * Use luminaires that have not been certified or are not compatible with the drivers may cause fire, explosion or other hazards.
- * Man-made damage is not covered by warranty.

Remark: The final interpretation right of the contents of this data sheet belongs to Lifud Technology Co., Ltd.

Change Resume

Version	Content of Change	R&D	Date
V1.0	Initial release	Yang Ru	14 MAR 2020
V1.1	Revised the packaging quantity	Yang Ru	28 MAR 2020
V1.2	Revised the input current Revised the length of PWM connection wire	Yang Ru	7 APR 2020
V1.3	Added the quantity of parallel PWM dimmable driver	Yang Ru	5 JUN 2020