

LF-SCD010B DALI to 0-10V Converter

Product Description

LF-SCD010B is an isolated signal converter, transforming the DALI / push signal to 0-10V output. It conforms to the DALI protocol IEC 62386-101, 102, 103, 207. Its input voltage ranges from 11Vdc to 13Vdc. One converter can control up to ten 0-10V LED drivers with strong 0-10V output signal. It flexibly fits in many different DALI lighting system designs.

Feature

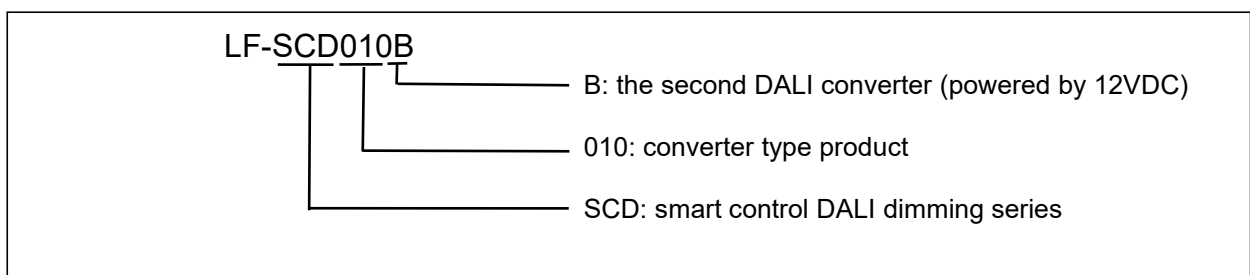
- Output 0-10V dimming signal; compatible with 0-10V dimmable driver; high performance, high reliability
- The 0-10V output signal can control maximum ten 0-10V LED drivers and achieve synchronous dimming
- Dimming range 10%-100% (dim to off)
- DALI & push dimming function; the logarithmic dimming mode and linear dimming mode can be selected via the 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-SCD010B
Output	Output Voltage	0-10Vdc
	Output 0-10V Sink Current	≤4mA
	Output 0-10V Source Current	≤25mA
	Voltage Tolerance	±5%
	Start-up Time	<1S@12Vdc
Input	Input Voltage	11-13Vdc
	Input Current	≤50mA (0-10Vdc no load)
	DALI Input Current	<2mA
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	86KPa - 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

Remark	<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 and 12Vdc power supply before connecting to the 0-10V dimmable drivers. Wire them only when they are not powered on. 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%, input voltage of 12Vdc and 100% load.
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Dimming Instruction

Description of Terminals

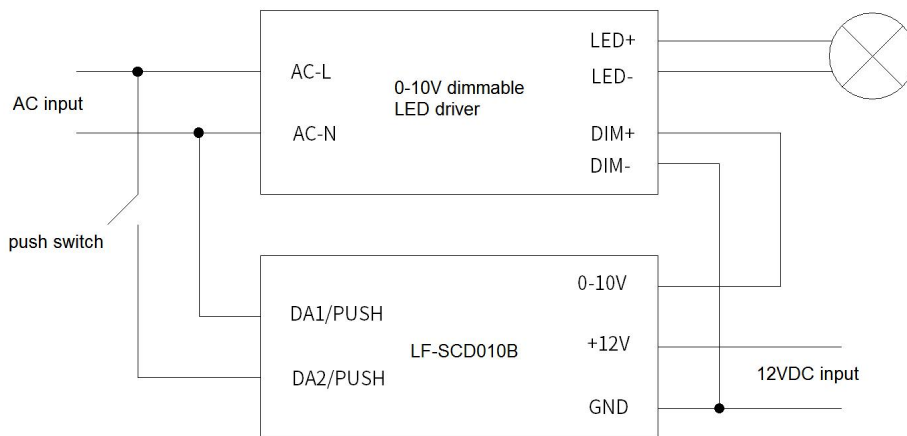
INPUT

DA1	DA1 and push dimming input terminal
DA2	DA2 and push dimming input terminal

OUTPUT

0-10V	0-10V signal output terminal +
+12V	12V power supply input terminal +
GND	The earth wire

Wiring Diagram of Push Dimming

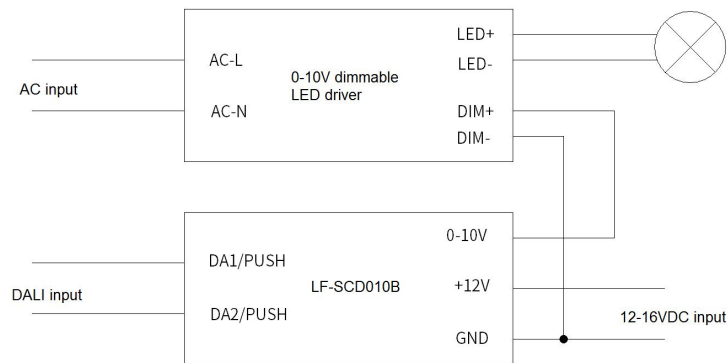


Instruction of Push Dimming

Operation	Lasting Time	Function
Short press	0.1 - 0.5S	LED light on / off
Long press	0.6 - 5S	Dim up / down
Reset press	> 9S	Reset to 50% luminance of push setting

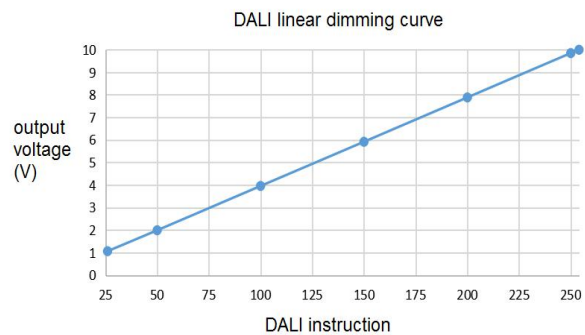
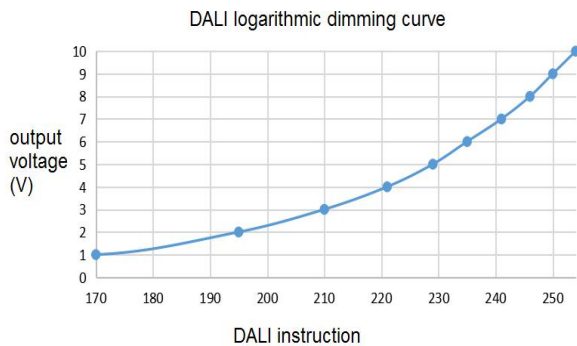
- * Pressing the button for less than 0.05 second will not trigger any response.
- * The minimum dimming depth of push dimming is 10%.
- * The push dimming mode has power-failure memory function. Re-power on the driver and the light will recover to the state before power failure.
- * In push dimming mode, the dimming direction of each pressing is the opposite of the previous direction.

Wiring Diagram of DALI Dimming



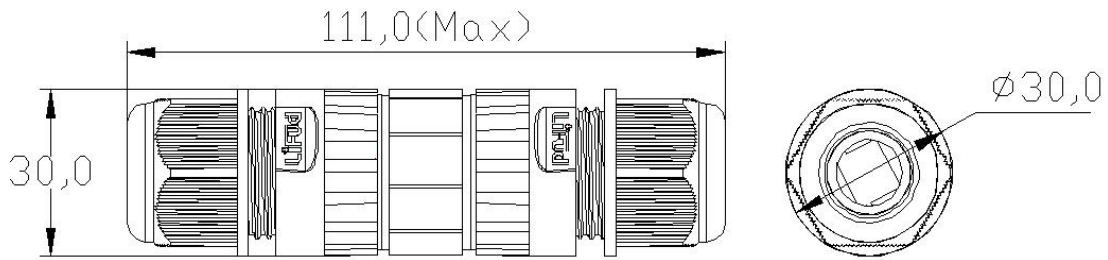
Instruction of DALI Dimming

- * The default setting is 10V, 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%.

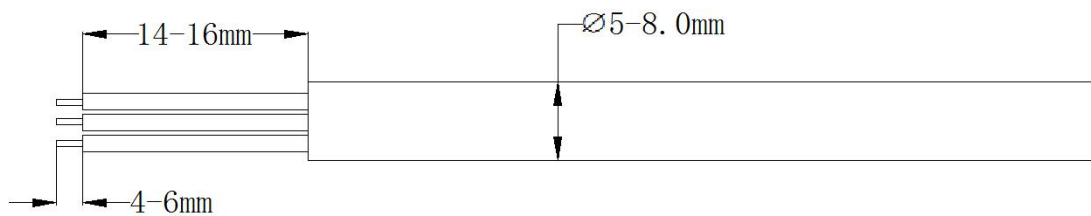


- * The DALI dimming function and push dimming function cannot be used at the same time, otherwise the DALI dimmer will be damaged.

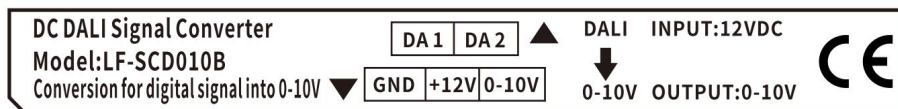
Structure & Dimension (unit: mm)



* 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-SCD010B
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	0.07 kg /1pcs; 6.8kg±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 if they can pass the re-inspection.

Attention

- * Do not reversely connect the 12V power supply or the GND wire to the 0-10V terminal.
- * The product is compatible with push dimming mode.
- * 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	11 MAR 2020
V1.1	Revised the packaging quantity	Yang Ru	28 MAR 2020
V1.2	Revised the package	Yang Ru	5 JUN 2020