

PLC Master-Slave Slave LED Driver

Model: SDC25-B/E



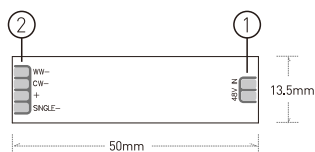
Introduction

This product is a slave LED driver to work with specific master driver for LED lighting application. The power input is DC 48V with power line communication (PLC) commands and it can drive LED lights in voltage range of 0-46V and rated current range of 100-700mA.

Besides dimming and color temperature adjusting, the output current, fade time, current trim level, dimming curve and group features are adjustable via the PLC commands from master driver.

With the advanced full DC dimming scheme, the connected luminaire will be flicker free from zero to maximum brightness, and build premium lighting experience.

Function & Size



1. Power supply input

Connect to master driver's 48Vdc output power, get power and PLC commands from master. The power input polarity is universal, and please connect each power pad to master driver's output.

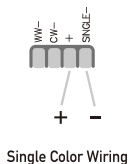
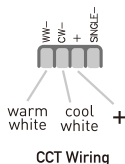
1

2. LED output

Connect to constant current driving LED lights. The output voltage range is from 0 to 46Vdc and the rated output current is from 100-700mA. The rated output current is programmable from the master driver. Please make sure the voltage and current match the luminaire.

The SDC25-B can drive CCT or single color LED, SDC25-E can drive single color only.

For CCT application, please connect LED's common positive to pad "+", cool white to pad "CW-" and warm white to pad "WW-". For single color application, please connect LED's positive to pad "+" and negative to pad "SINGLE-".



Installation

3. Install steps

1. Make sure the driver's output current and voltage range match the LED light.
2. Connect the output to LED light, make sure the polarity is correct and cable is well insulated.
3. Connect the input to master driver's output, make sure the cable is well insulated.

CAUTION:

Do not connect ANY cable to AC power!

Only connect the input to compatible master driver!

4 Automatic LED adaption

This driver verifies the LED character on each power on. It will run a adaption process once the change of LED is detected. During the adaption process, the lighting fixture will dim up and down for about 10 seconds. After this process, the driver will match the LED feature and maintain a 0-100% full range physical non-flickering DC dimming. Normally this adaption process happens on the power on moment once LED is changed when the brightness is higher than 30%.

For CCT application, each LED channel must has same voltage and current feature for proper adaption and working.

CAUTION: The adaption process CAN NOT detect the value of LED rated current, so the rated current **MUST** be set correctly from the master driver before connecting to lighting fixture. Otherwise the lighting fixture can be permanently damaged!

2

3

■ **Advanced features**

5. Change rated output current

The output current can be set from the master driver via smart app, the adjustable range of output current value is 100-700mA. Please refer to the master driver’s instruction for detailed operation.

6. Output current trimming

Besides the output current setting, the output current also can be trimmed from 100% to 50% of the rated current at 5% step. With this feature, the LED current and light luminance can be matched preciously. Please refer to the master driver’s instruction for detailed operation.

7. ON/OFF fade time adjust

The on/off fade time can be adjusted in range of 0-25.5s from the master driver. Please refer to the master driver’s instruction for detailed operation.

8. Change dimming curve

The dimming curve can be changed from Logarithm, Linear and Optimized logarithm. Please refer to the master driver’s instruction for detailed operation.

9. Program the salve driver zone

The slave drivers connected to same master driver can be programmed to different zones. User can adjust the brightness or color temperature of each zone individually. Please refer to the master driver’s instruction for detailed operation.

■ **Specification**

Model	SDC25-B	SDC25-E
Function	2-in-1(Single color/CCT)	Single color
Input voltage	DC 48V	
Output Voltage	DC 0-46V	
Output current	0-700mA	
Max output power	25W	
Communication mode	Digital Power Line Communication	
Output current setting	100-700mA programmable@1mA step	
Fade time setting	0-25.5s with 0.1s step	
Output current trimming	100%-50% with 5% step	
Dimming curve setting	Linear, Logarithm, Optimized logarithm	
Working temperature	-20°C~+70°C	
Dimension	50x13.5x6mm	

可编程LED驱动从机

SDC25-B/E

48V
PLC

电源线载波通信



超小尺寸

DC

纯直流调光



冷暖白/单色

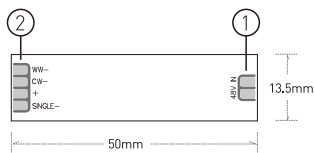
■ 简介

该LED驱动从机可以与对应的驱动主机构成智能照明系统。本机电源输入为包含载波控制信号的直流48V电源，本机输出可以驱动电压范围在0-46V、额定电流在100-700mA的LED灯具。

本机能实现灯具的调光调色功能，而且还可以通过驱动主机调节额定电流、渐变时间、电流微调、调光曲线以及从机分组功能。

本机应用了先进的全DC调光技术，在从0到最高亮度间都做到了完全无频闪，可实现极致的照明效果。

■ 功能和尺寸



1. 电源输入

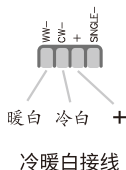
连接到驱动主机的48V直流输出，从驱动主机获取电源和PLC控制指令。本机电源输入不分极性，请将两个电源焊盘分别连接到主机的电源输出。

2. LED输出

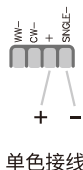
连接到恒流驱动的LED灯具。本机输出的电压范围为0-46V，额定电流范围为100-700mA，额定输出电流可以通过驱动主机来设置。连接前请确保LED灯具的电流电压范围与本机相符。

SDC25-B机型可以驱动单色或冷暖白LED，SDC25-E仅用于单色LED。

对于冷暖白LED，请把焊盘“+”连接到LED的“+”端、焊盘“CW-”连接到LED冷白端、焊盘“VW-”连接到LED的暖白端。对于单色LED，请把焊盘“+”连接到LED“+”端，焊盘“SINGLE-”连接到LED“-”端。



冷暖白接线



单色接线

■ 安装和使用

3. 安装步骤

1. 确认本机的输出电流与输出电压范围与LED灯具相匹配。
2. 将本机输出连接到LED灯具，确保极性正确、连接良好且可靠绝缘。
3. 将本机输入连接到驱动主机的输出端，并确保连接良好且可靠绝缘。

请注意：

请勿将本机电缆连接到交流电！

本机仅在连接匹配的驱动主机时才能正常工作！

4. LED的自动适配

本机在每次通电且亮度高于约30%时都会检验LED灯具的特性，当检测到灯具参数变化时，本机会自动进行灯具适配以达到最佳的调光效果。在适配过程中，灯具会明暗闪烁约10秒。适配完成后，驱动将完全匹配灯具，并实现0-100%的DC恒流调光。

对于冷暖白灯具，请确保两个LED通道的电压和电流特性相同，否则灯具自动适配将失败，驱动只能在单色模式下工作。

注意！本机并不能识别LED的额定电流值，所以必须先设定好输出电流值再连接灯具，否则可能会造成LED的永久损坏！

■ 高级功能

5. 改变额定输出电流

本机的额定输出电流可以使用手机app通过驱动主机进行设定，本机可设定的额定电流范围为100-700mA。具体的设定方法请参考驱动主机的使用说明。

6. 输出电流微调

除了额定电流设定外，本机的输出电流还可以在100%到50%之间进行微调。通过该功能，用户可以精确匹配LED的驱动电流和亮度。具体的设定方法请参考驱动主机的使用说明。

7. 调节开关渐变时间

本机的开关灯渐变时间可以通过驱动主机在0到25.5秒之间调节，具体的调节方法请参考驱动主机的使用说明。

8. 改变调光曲线

本机的调光曲线可以在线性、对数和优化对数曲线中进行调节，具体的调节方法请参考驱动主机的使用说明。

9. 驱动从机的分组

连接到同一驱动主机的多个驱动从机可以分配到不同的组，用户可以对不同的分组进行独立的亮度和色温调节。具体的分组方法请参考驱动主机的使用说明。

■ 产品规格

型号	SDC25-B	SDC25-E
功能	2合1(单色/冷暖白)	单色
输入电压	DC 48V	
输出电压	DC 0-46V	
输出电流	0-700mA	
最大输出功率	25W	
通讯模式	数字化电源线载波通信	
额定输出电流调节范围	100-700mA可调，步进1mA	
渐变时间调节范围	0-25.5秒可调，步进0.1秒	
输出电流微调	100%-50%，步进5%	
调光曲线选择	线性、对数、优化对数	
工作温度 (Ta)	-20°C~+50°C	
尺寸	50x13.5x6mm	