

Ceiling Module | DC/DC Converter LM2596S

This module is used to control the current and voltage of the LED spots (COB LED Spot 6000-6500K 260mA 10V)

https://www.ebay.de/itm/DC-DC-LM2596S-60V-3A-Stepdown-Modul-Buck-Modul-zum-Regulieren-von-CC-CV/332730030268?ssPageName=STRK%3AMEBIDX%3AIT&_trksid=p2057872.m2749.l2649

The DC/DC LM2596S 60V 3A Stepdown Module is designed to step down from input voltages from 5 to 57V to output voltages from 1.25 to 30V. Constant current (CC) and constant voltage (CV) can be regulated quickly and easily. By means of the 2 potentiometers constant current range and output voltage can be adjusted.

Thanks to integrated reverse polarity protection and short-circuit protection, it is a particularly reliable and durable module that can be used safely up to 2.2 A output current without external cooling. Applications for recharging rechargeable batteries, as a voltage source in laboratory quality or dimmers are now a thing of the past. The built-in LED indicator indicates a load (red) or whether it is free (green).

- Output short circuit protection at constant current
- Input reverse polarity protection
- Input voltage: 5 - 57 V (should be 2 V above output voltage)
- Output voltage: 1.25 - 30 V
- Output current: 2.5 A nominal current / max. 3 A; external cooling required
- Output power: max. 15 W
- Dimensions: LBH approx. 4.8 x 2.4 x 1.4 cm
- Potentiometer for setting constant current (next to OUT)
- Potentiometer for setting constant voltage (next to IN)



Integrated LED with status:

- green illuminated = constant voltage
- red light = constant current

To use the LM2596 CC/CV regulator module as an LED constant current driver

1. Make sure of the operating current and maximum operating voltage of the LED you will drive.
2. With no load connected to the output of the module (open circuit), adjust the Constant Voltage potentiometer CV to set the output voltage to the LED maximum operating voltage.
3. Short-circuit the module output, and use a multimeter in 10A current scale to measure output short-circuit current, and adjust the Current Potentiometer CC to set the output current to the required LED operating current.
4. Connect the LED to the module and test.
5. The module can drive multiple LEDs in series, parallel or in series/parallel strings, as long as the maximum voltage and current of the string does not exceed the 30V maximum output voltage and 3A maximum output current of the driver module.

Version #1

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