

08/11-03

Datasheet and connecting plan

adjustable high power constant current source: HKO-KL50-1000
soldering free connection with terminal blocks for **High-Power-LEDs**

HKO-KL50-1000 - HIGH POWER CONSTANT CURRENT SOURCE
adjustable from 50 to 1000 mA
soldering free connection with terminal blocks
with control input for PWM etc.
for optimal light output and safe operation of LEDs

High efficiency and very little heat is achieved by modern switching-technology. The use of special amplifiers guarantees precise and constant output current. Very small dimensions, low weight and high reliability through SMT-technology (surface mounted components). Every HKO is electronically tested.

Technical data:

- Startup: ca. 6 volts (for one 3 watts LED)
- Drop: ca. 3 volts
- Maximum input voltage: 35 volts DC (max.)
- Output: short circuit protected
- Output current: 50 to 1000 mA adjustable
- Input: reverse polarity protected
- Control input (PWM): TTL compatible (0=off, +5V=on)
- Tolerance: < 3%
- Efficiency: depending on circuitry between 75 und 90 %
- Thermal protection
- Working temperature range: -40 °C bis +85 °C

Dimensions: 30 mm x 40 mm, 12,5 mm high

Connections: Terminal blocks

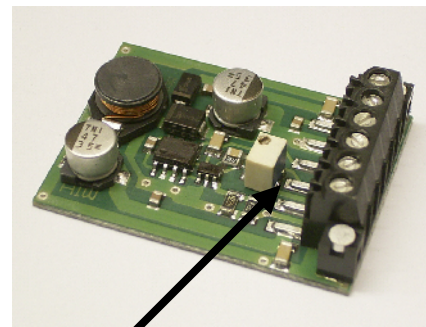
Weight: ca. 10 grams

Material: FR4, glass/epoxy

Backside: copper, tin-plated, connected with - IN

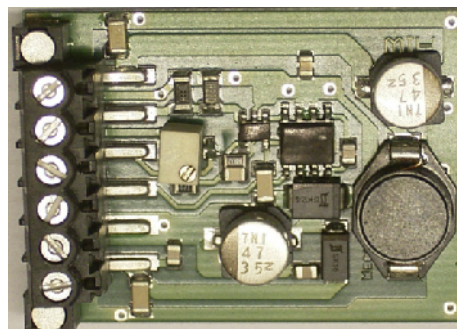
The circuit can drive with constant current up to 10 High-Power LEDs in white, blue or green, or up to 16 High-Power LEDs in red, amber or orange, connected in series depending on the input voltage. The circuits backside consists of tin-plated copper to support better heat management. It is connected with -IN, please take care when mounting. Depending on load additional heat sink and filtering may be necessary. The board can be easily mounted with cooltape on a heat sink or another metal surface like a computer case. The HKO is switched on when the PWM terminal is left open.

Connections:



Adjust (11-track, for precise adjustment)

- + LED**
- LED**
- do not connect!**
- PWM**
- IN**
- + IN**



Attention: NEVER connect „-IN“ and „-Led“!!! Do not switch output side, switch input side only.

additional available versions:
HKO100, HKO150, HKO350, HKO385, HKO400, HKO500, HKO700, HKO750, HKO1000, HKO1050, HKO1400, HKO1500
HKO2000, HKO2200, HKO2500, HKO2800, HKO-KL-ext

-date: 11/08-alterations preserved-

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