

06/04-02

Data sheet and connections

**HKO High-Power-Constant-Current-Source Type: HKO400**

for **Osram Golden Dragon** yellow or amber and other **400 mA** High-Power-Leds



**HKO400 - HIGH-POWER-CONSTANT-CURRENT-SOURCE 400 mA**

for operating Osram Golden Dragon Leds in yellow or amber and other 400mA 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 400-mA-version:

- Startup ca. 4,6 Volt (for one Osram Golden Dragon yellow or amber)
- Drop: ca. 1,8 Volts
- Maximum input voltage: 35 Volt DC
- Output: protected against short circuit
- Output current: 400 mA constant
- Input: protected against confusion of the poles
- Tolerance < 3%
- Efficiency: between 75% and 90% depending on the number of LEDs
- Thermal protection
- Working temperature range: -40°C to +85°C (degrees Centigrade)

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, depending on 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. In some very hot environment it could be necessary to cool the module. It is recommended to use Cooltape-pads and a SK452 heatsink, it is also possible, to mount it on a metal-surface etc..

Printed circuit board:

New dimensions: 23 mm x 23 mm, 7 mm high

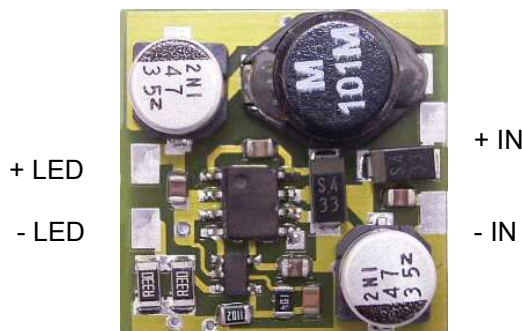
Connections: soldering pads

Weight: ca. 4 grams

Material: FR4, glass/epoxy

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

**Connections:**



*Shutdown- Pin:* At the Shutdown- Pin is a soldering Pad that can be used for external controlling (e.g. by using our "dimled" to control the brightness) independent auf your main power supply.(TTL-compatible).

Shutdown-Pin:  
See mark.

A close-up photograph of the Shutdown-Pin soldering pad on the PCB, which is a small rectangular pad. A white circle highlights the pad, and a white arrow points to it from the text 'Shutdown-Pin: See mark.' to the left.

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

**Available versions:**

**HKO100 (100mA), HKO150 (150mA), HKO350 (350mA), HKO385 (385mA), HKO400 (400mA), HKO500 (500mA), HKO700 (700mA), HKO750 (750mA), HKO1000 (1000mA), HKO1050 (1050mA), HKO1400 (1400 mA), HKO1500 (1500mA).**

-date: 012/05-alterations preserved-

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