

Compact driver with integrated cooling for Laser diodes up to 15 A TEC driver with mounting plate USB interface Analog interface 12 V/DC or 24 V/DC supply Stable aluminum enclosure



The compact driver 0914 from Beratron was developed for laser diodes up to 15 A. The laser diodes are mounted on a mounting plate inside the enclosure. The mounting plate is cooled or heated with peltier elements.

Up to 8 W thermal dissipation loss at a difference in temperature of 10 °C to environment air can be dissipate. Therewith the 0914 driver fits several diodes of many laser diodes manufacturer. On the mounting plate a multiplicity of laser diode housings can be installed.

The driver can be controlled via USB Bus or a simple analog interface.

The settable limit current protect your laser diode from over current in any case. The operation temperature of the laser diode can be set between 15  $^{\circ}$ C and 40  $^{\circ}$ C (the maximum dissipation loss has to be kept in mind).

All parameters of operating can be saved. The driver 0914 is supplied by 12V/DC or 24 V/DC.

A three color LED on the front side of the driver informs on operational state.

The driver is designed for CW mode as well as for pulse mode with pulses from 5  $\mu$ s up to CW.

A current-monitor and Interlock for safety integration in your environment perfects the driver 0914.



picture 1: front view

Version 3.0



Supply	12V/DC or 24V/DC Connector Phoenix MSTB 2,5 HC/2-ST-5,08
max. laser diode current	selective 3.3A, 5.8A, 7.5A, 10A or 15A load voltage 5V@12V supply or 11V@24V supply higher currents for pulse-mode on request current rise time < 1 µs for internal diodes over-current protection
max. dissipation loss	8 W at 10°C $\Delta$ T to environmental air
Settable laser diode temperature	15°C to 40°C, settable, stability < 0,1°C
USB interface	Mini - B
Analogue interface	Laser diode current presetting Phoenix connector FK-MC 0,5/8-ST-2,5
Warning lamp (Relay)	24V DC or AC / 400 mA
Current-monitor	Digital via USB and analogue
Trigger	TTL Trigger IN / SMC connector max. 50 KHz TTL Trigger OUT / 50 $\Omega$ / SMC-connector
Interlock	single, hard
Fiber-coupler	e.g. SMA-905
Suitable laser diodes	Lumics, Jenoptik, OSRAM, Bookham, JDSU, BWT, Wave spectrum and many more
Operation indicator	Three-color status – LED
Pulse specifications	5µs up to CW max. 50 KHz (internal operation, free run)
Operation modes	internal mode (presetting via USB) external mode (presetting via analogue interface)
Enclosure	Aluminum
Weight	depends on model, ca. 700 g
Dimensions	16.4 x 10.5 x 4.6 cm <sup>3</sup> (without connectors)