

Control board IMS-3/100LP01

Description

The control board IMS-3/100PL01 is a small round printed board for continuous-wave operation of CW laser diodes with a maximum operating current of 200 mA.

By means of the monitor diode, the power set by use of an SMD potentiometer is regulated.

In general, it is recommended to carry out the power measurement directly at the laser diode so that it cannot be overcharged.

The printed board is equipped with a reverse voltage protection and an over-voltage protection. Always make sure that the laser diode is sufficiently cooled!

Technical data

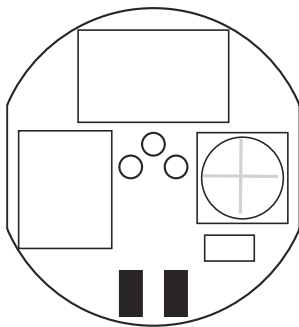
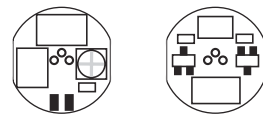
Operating voltage: 3 V - 5 V

Operating current: 200 mA max.

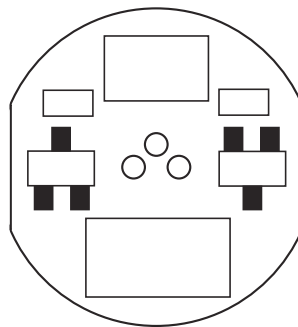
Monitor diode current: 1,5 mA

Dimensions: Diameter 14 mm / thickness: approx. 6 mm

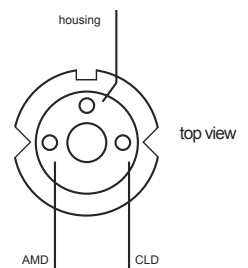
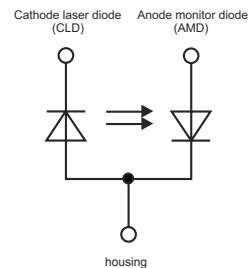
true size



+U_B GND



Installation side of the laser diode



Setting of the laser diode power

Solder laser diode into the printed board. Turn SMD potentiometer to the left stop position. Apply voltage supply (3V - 5V DC) to the printed board and turn slowly to the right side with the SMD potentiometer. The laser diode is slowly powered up by this. Make sure that the optical output power of the laser diode is supervised and that it is by no means exceeded. Use an appropriate optical power measuring device. Make sure that the measuring cell is arranged under an angle of approx. 15° to the laser diode, in order to prevent back-reflections to the monitor diode.

Caution

For the operation of laser diodes, make sure there is enough cooling.

An overheating of the laser diode will result in its destruction.

For carrying out a correct power setting, we recommend to measure the optical power directly at the laser diode.

Safety instructions

When using laser diodes, observe the safety regulations in accordance with EN60825.

Furthermore observe the accident prevention regulations for laser radiation (VBG 93) stipulated by the German professional association for precision mechanics and electrical engineering ("Berufsgenossenschaft der Feinmechanik und Elektrotechnik").