



Product description

This driver has been specially developed for controlling seed diodes in solid-state and fiber lasers. The digital control completely eliminates the analog input signal and can be set in 2 ns steps with a 2 mA resolution. The digital output stage can be used to create any pulse shape with a maximum time resolution of 300 ns and a minimum pulse duration of about 1 ns.

Pulse-to-pulse deviation is better than 1×10^{-6} , confirmed by measurements under laboratory conditions.

With an output current from 0 to 2 A it delivers enough power to overdrive single mode diodes for short pulses.

Of course, there are protective features and the driver is baseplate cooled like all other drivers from PicoLAS.

- » 0 to 2 A output current
- » typ. < 1 ns rise time
- » pulse width controlled via CPU
- » pulse width ~1 ns to 300 ns
- » repetition rates up to 2 MHz
- » single 12 V supply

Technical data*

Output current	0 .. 2 A
Compliance voltage	single laser diode
Bias current	0 .. 100 mA
Rise time	typ. < 1 ns
Trigger delay	typ. < 10 ns
Trigger input	3.3 V into 50 Ohm
TEC Controller Current	-1.2 .. +1.2 A
TEC Controller Voltage	-2.3 .. +2.3 V
TEC Controller Setpoint	via RS-232
TEC Controller stability	up to 1 mK
Laser fire detector output	500 ns TTL
Supply voltage	12 V DC (MIN 11 V, MAX 20 V)
Operating temperature	-20 °C to +75 °C
Dimensions* [mm]	65.0 x 85.0 x 15.0
Weight with	approx. 110 g

* Specifications measured with a fast recovery diode instead of laser diode.

Technical data is preliminary and subject to change without further notice.

Accessory

- » PLB-21