

LDP-V 50-100 V3.3

Driver Module for pulsed Lasers

Rev. 1908

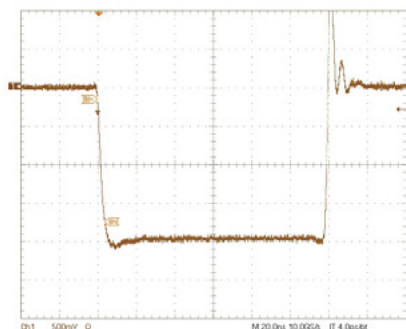
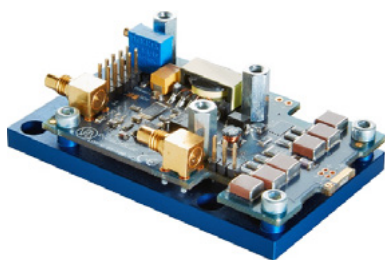


Figure: Current monitor output, scale: -10 A/Div

Product Description

The LDP-V 50-100 is a small and inexpensive source for generating nanosecond pulses. The device is optimized for pulse repetition rates from single shot up to MHz repetition rate with duty cycles up to 59%**. Its typical application is driving pulsed laser diodes. Those can be mounted directly onto the LDP-V, eliminating the need for strip lines. The diode must be electrically isolated from earth (chassis) ground. Compatible laser diode packages: TO-18, TO-5, TO-52, 5.6 mm, 9 mm and similar. Despite its small size, the LDP-V is designed for ease of use. It eliminates the need for multiple peripheral supply units. A single 15 .. 24 V DC supply and a triggering signal are all which is required for operation. Additionally, you can upgrade the LDP-V with the PLCS-21 controller to enable USB 2.0 communication with a PC or the external operating unit PLB-21.

Do not use PLCS-21 with higher supply voltage than 15 V. If you use the PLCS-21 with higher voltage than 15 V, the device will be damaged.

- Compact OEM module
- 3 to 50 A output current
- < 4 ns rise time
- Pulse width control via SMC trigger input (8 ns to 10 μ s)
- Rep. rates from single shot to 2 MHz
- Single supply
- Current monitor and isolated monitor
- Applications: LIDAR, Measurements, Ignition, Rangefinding, Biochemistry, ...

Technical Data*

Output current	3 .. 50 A
Max. output voltage	100 V
- int. high voltage	0 .. 100 V, 1 A, 15 W
Rise time	Typ. 2.3 ns, max. 4 ns
Trigger delay	Typ. 36 ns, max. 40 ns
Min. pulse duration	8 ns
Max. pulse duration	> 1 μ s (@ 50 A)** > 10 μ s (@ 5 A)**
Trigger range	Single shot to 2 MHz** (refer to diagram with operating limits)
Trigger input	5 V into 50 Ω via SMC-jack
Trigger output	Galvanically isolated Rogowski coil
Current monitor	20 A/V into 50 Ω
Supply voltage	15 .. 24 V, 2.2 A Optional: 0 .. 100 V, 30 W (external high voltage)
Max. power dissipation	25 W
Dimensions in mm	75 x 44 x 20
Weight	76 g
Operating temperature	-20 to +55 $^{\circ}$ C

* Measured into a short instead of laser diode. Technical data is subject to change without further notice.

** See manual for detailed information.

Optional Accessories: PLCS-21
PLB-21
LDP-V BOB
LDP-V KIT