



# **ALPHALAS**

## **FIBER-COUPLED LASER DIODE WITH DRIVER & TEC CONTROLLER LDF-30**



Fiber-coupled laser diodes with output power up-to 30 W integrated in our laser drivers provide a compact and efficient air-cooled solution for solid-state laser pumping, material processing and scientific applications. The drivers have all protective features for reliable and safe operation, including soft start, true current-source operation, overtemperature and undertemperature limits, current limits, temperature sensor fault alarm, laser diode loop check, etc.

Due to newest electronic design and production technology ALPHALAS provides *the most compact solution* for a ready-to-use fiber-coupled laser diode worldwide, combined with the most universal laser diode driver. The option with built-in frequency generator expands the capabilities for pulsed mode of operation. Thus, the laser diode can be operated in CW, pulsed, or combined CW/pulsed mode (biasing). The back-lighted liquid-crystal display monitors numerous important parameters as laser diode current, TEC module current and current limit, measured and set LD temperature, and temperature limit.

Higher output powers from fiber-coupled laser diodes are also available, as well as custom designs.

*See back page for details*



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### **TECHNICAL SPECIFICATIONS**

#### ***Optical:***

**Optical output power (CW or pulsed):** min. 28 W, typ. 30 W, variable

**Wavelength:** 808 nm (+/-3 nm) standard, on request 800 nm - 980 nm

**Fiber coupling:** SMA 905, for fibers 400  $\mu$ m, or 600  $\mu$ m (fiber is optional)

#### ***Frequency generator for light output modulation (option LDF-30-P):***

- repetition rate: 100 Hz - 2000 Hz standard (other on request)
- pulse duration: 50  $\mu$ s - 300  $\mu$ s standard (other on request)

#### ***Displayed parameters:***

- CW laser diode current, A
- PULSED laser diode current, A (option LDF-30-P)
- Repetition rate, kHz (option LDF-30-P)
- TEC modules current, A
- TEC modules current limit, A
- Actual laser diode temperature, °C
- Set laser diode temperature, °C
- Laser diode temperature limit, °C

***Control lights (LEDs):*** Cooling, Temperature limit error, Interlock

#### ***Additional functions:***

- Trigger input, (option LDF-30-P)
- Trigger output (option LDF-30-P)
- Laser diode current monitor
- Photodiode feedback input (not available for option LDF-30-P)
- Interlock

#### ***General:***

- Power requirements: 100 VAC - 240 VAC, 50/60 Hz universal worldwide
- Power consumption: max. 700 W
- Dimensions: 155x365x450 mm (H x W x L)
- Weight: 15 kg