

# DOUBLE PULSED LASERS LS-2131D, LS-2134D AND LS-2145D



*Double pulsed Q-switched Nd: YAG lasers are designed to provide highly stable, nanosecond pulsed IR, green and UV radiation for Particle Image Velocimetry (PIV), Laser Induced Breakdown Spectroscopy (LIBS) and other kinetic applications.*

These compact double pulsed lasers (DPL) are designed with a unique laser head: two independent laser resonators pumped by a single flash lamp are integrated in one laser emitter. A single power supply and cooling unit (with water-to-air heat exchanger) are used in the DPL. Ease of use is provided through multiple triggering:

- single-shot push button trigger and continuous internal trigger from remote control,
- external TTL trigger,
- computer-controlled laser operation via RS-232 port.

These DPLs combine the reliability and rigidity of LS-2131-2134 lasers with operation in dual pulse mode: two output pulses of equivalent energy; polarization and high beam uniformity. Dual output ports allow each oscillator to operate independently when necessary.

DPL can be fit with harmonic generators and tunable solid state lasers.

## SPECIFICATIONS<sup>1</sup>

Model	LS-2131D	LS-2134D	LS-2145D
Energy, mJ	1064 nm 532 nm 355 nm	100 50	200 110 320 190 80 <sup>4</sup>
Pulse duration (FWHM at 1064 nm), ns	14-16		
Pulse repetition rate, Hz	15	10	
Beam divergence ( $\Theta_{0.86}$ ), mrad	1.5	2.5	
Beam diameter, mm	4	6.3	
Delay between laser pulses <sup>2</sup> , $\mu$ s	0-80		
Jitter <sup>3</sup> , ns	$\pm 1.0$		
Energy stability 1064 nm (StDev), %	$\leq 1.0$		
Size LxWxH, mm (Weight, kg)	Laser Head 770x306x143 (21.0) Power Supply LPS-2230M 461x276x504 (26.0) Remote Control 105x175 (0.5)		
Power requirements	Single phase, 100-220V, 50/60 Hz, 1000 W		

<sup>1</sup> All specifications are subject to change without notice

<sup>2</sup> 1  $\mu$ s-steps (1ns on request)

<sup>3</sup> With respect to external trigger of Q-switch

<sup>4</sup> Laser Head size 1020x306x143 mm

