

# DOUBLE PULSED Nd: YAG LASERS LS-2131D, LS-2134D, LS-2136D 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	LS-2136D-4	LS-2136D-5
Energy, mJ	1064 nm 2x100 532 nm 2x50	2x200 2x110	2x320 2x190	2x80 2x40	2x100 2x50
Pulse duration (FWHM at 1064 nm), ns	14-16				
Pulse repetition rate, Hz	15		10		50
Beam divergence ( $\Theta_{0.86}$ ), mrad	1.5		2.5		1
Beam diameter, mm	4		6.3	4	5
Delay between laser pulses <sup>2</sup> , $\mu$ s	0-80				
Jitter <sup>3</sup> , ns	$\pm 1.0$				
Energy stability 1064 nm (rms), %	$\pm 3.0$				
Size LxWxH, mm (Weight, kg)					
Laser Head	770x306x143 (21.0)			770x306x143 (21.0)	
Power Supply	391x364x192 (16.5)			446x449x177 (20.0)	
Cooling System	391x364x280 (15.5)			446x449x266 (23.0)	
Remote Control	105x175 (0.5)			105x175 (0.5)	
Power requirements	Single phase, 220 $\pm$ 20V, 50/60 Hz, 10 A				

<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

