

LS-2131 Pulsed Nd:YAG Laser



LOTIS TII LS-2131 Nd:YAG laser is designed to provide years of trouble free operation in even the most demanding environments. The most important features of this laser is compactness, rugged reliability and simplicity of operation.

The small size of the laser and high stability of output characteristics are provided by a special design of a folded resonator. The hard-mounted optics is virtually immune to the thermal and physical shocks. In spite of the laser small size, access to and replacement of every part of laser units is easy and simple for use.

The increased safety of lasers results from the absence of external high voltage connectors. The special interlocks are used to avoid abnormal laser operation from normal mode.

A diffuse close-coupled pumping chamber is utilised for efficient and uniform pumping of laser rod. The device has been designed for quick and easy interchange of the flashlamp without any re-adjustmen of the laser resonator. The flashlamp operates in simmered mode to provide stability of light output and long durability.

Deionized water is used in the cooling system. The system consists of hermetic water pump, flow, temperature and level sensors and water-to-air heat exchanger.

Standard water purification filters are used for long-term operation

Specification

Parameter	Value	
Energy, mJ	1064 / 532 nm	100/ 50
Pulse duration (FWHM, at 1064 nm), ns	9–11	
Pulse repetition rate, Hz	1–20	
Beam divergence, mrad	1.5	
Beam diameter, mm	4	
Jitter*, ns	±1.0	
Energy stability** (1064 nm), %	±2.5	
Size L x W x H, mm (Weight, kg)	Laser head	567 x 152 x 90 (9.5)
	Power supply	363 x 364 x 192 (15.5)
	Cooling system	363 x 364 x 192 (12.5)
	Remote control	105 x 175 (0.5)
Power requirements	Single phase, 220±20 V, 50–60 Hz, 500 W	

* with respect to external trigger of Q-switch

** shot to shot for 99% of pulses

