

Pulsed Ruby Lasers for Holography

The HLSR series of Ruby lasers were specially developed for Holography applications. A spatial filter after the oscillator maintains a smooth, even beam profile, and optional amplifier stages provide high pulse energies. This ensures excellent illumination for even the largest holograms. Line-narrowing etalons give coherence lengths of over 1 meter, without the need for expensive seeding or mode-locking techniques.



For interferometry applications, double-pulsing is built in as standard, with more pulses available as an option. The relative energies in each pulse can be easily adjusted.

HLS-R series lasers use our revolutionary carbon fibre structure. All optical components are mounted in a cage of carbon fibre rods, to achieve excellent mechanical and thermal stability - far surpassing traditional materials such as Invar - meaning our lasers stay aligned, even in the toughest environments.

A self-contained chiller system regulates the temperature of the laser, so no external water supply is required. The laser is controlled via PC using our intuitive software.

Three standard models are available, as detailed in the table below:

Model	HLS-R20	HLS-R30	HLS-R40
max. energy, single pulse	1J	3J	10J
max. energy, double pulse*	0.5J/pulse	1.5J/pulse	5J/pulse
wavelength	694.3nm		
pulse repetition rate	up to 4 pulses per minute		
pulse duration, nominal	25ns		
separation of double pulses	1 - 800µs programmable in steps of 1µs		
coherence length	>1m contour free on 90% of shots		
electrical supply	90-255VAC 50-60Hz		
max. power consumption	5kW		
dimensions, laser head (mm)	H260 W440 L970	H260 W440 L1370	H260 W440 L1370
dimensions, power supply (mm)	W600 D800 H1300	W600 D800 H1300	W600 D800 H1500

* for pulse separations in the range 100 - 600µs

Laser equipment for science & industry

InnoLas UK Ltd is a UK-based manufacturer of solid-state lasers and accessories for industrial and scientific users. With a portfolio of applications ranging from drilling, cutting and welding a huge variety of metal and other materials through to holography, optical damage measurements and plasma diagnostics, we aim to provide each user with a tailored solution to their needs.

InnoLas products are based around flashlamp pumped solid-state laser technology. Our modular design approach enables highly specialised solutions to be quickly and reliably developed using well-proven sub-assemblies and robust mechanical structures.



Support

At InnoLas, we don't just sell machines - we keep them running around the clock, so you can keep working. As well as breakdown callouts, our experienced service team carry out Preventative Maintenance visits which help keep your machines in optimum condition. We offer fully traceable calibration of laser power meters, a requirement of many modern manufacturing standards.



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LASER CLASS 4