LTB
LASERTECHNIK BERLIN

LIGHT. PRECISION. ANALYTICS.

Pulsed UV-laser up to 300 Hz

MNL 330

Pulsed UV-laser source up to 300 Hz for reader applications

- Up to 300 Hz
- Long operating life
- Cost-effective solution
- Compact

The MNL 330 is the ideal light source for bio-reader systems. Compact, reliable and cost-efficient, it can provide pulse energies up to 40 µJ and repetition rates up to 300 Hz.

The MNL 330 is characterized by its long lifetime, low energy decay and high precision. This is achieved by the patented innovations:

- Sealed cartridge in metal-ceramics technology
- Directly switching solid state power switch

The MNL 330 presents the advantages of modern laser technology.
Only an external trigger signal is required for its operation; that is the reason why its use is so simple and insusceptible to interferences.

The lasers can be equipped with an optical fiber for the light output to allow the best integration in the customers' applications.

Compared to flash lamps, the MNL 330 provides several benefits: it couples clearly more light in an optical fiber or even in several fibers simultaneously, delivers pulses with higher energy, lower pulse duration (3ns, no afterglow) and considerably lower spectral band-width (excitation wavelength and detection wavelength can be very close).
Moreover it is possible to couple the MNL 330 with a tuning module in order to provide several wavelengths of the whole visible spectrum.

The air-cooled MNL 330 is supplied with a low voltage of 24 V DC / 60W. A wide range power supply can be obtained from LTB, if required (100 – 240 V, 50 – 60 Hz).

Small, compact, with a total volume of 2.2 litres, the MNL 330 will provide you the best performances as UV-light source for your reader.

Options:

- Fiber coupling and fibers

Applications

- For reader applications
- Fluorescence spectroscopy (LIF)
- MALDI-TOF imaging
- Alternative to flash lamps

Specifications

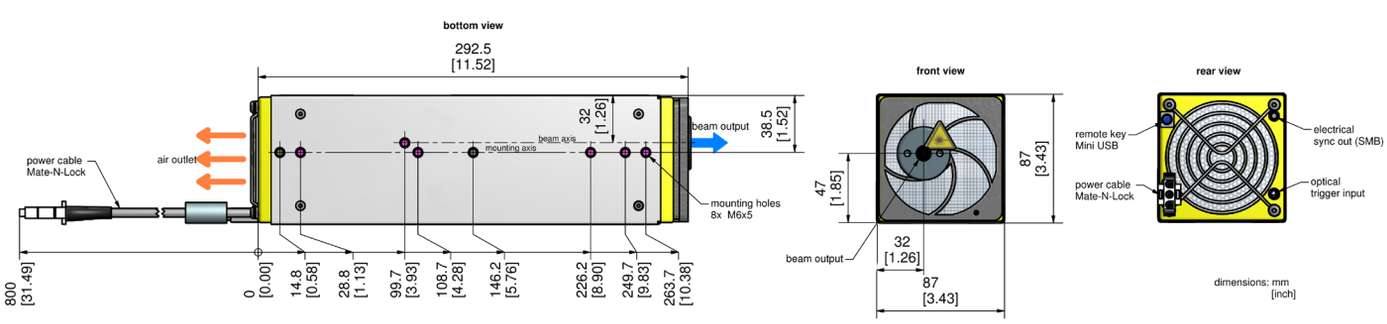
			MNL 330
General	Wavelength	nm	337.1
	Spectral bandwidth	nm	0.1
	Pulse halfwidth FWHM, typ.	ns	3
	Pulse energy[1], typ.	µJ	15 @ 300 Hz
	Pulse power, typ.	kW	5
	Repetition rate	Hz	1... 300
	Energy stability SD (for all rep. rates)	%	≤ 2
	Beam dimensions, vertical x horizontal, typ.	mm	1.5 x 2
	Beam divergence, vertical x horizontal[2]	mrad	≤ 2 x ≤ 3
	Focus stability	µm	< 15
	Beam exit angle, vertical / horizontal, typ.	grad	0 ± 0.2
	Trigger In		optical or electrical (TTL)
	Jitter: ext. trigger - laser pulse	ns	± 5
	Pulse delay: ext. trigger - laser pulse	ns	1,600 ± 10 %
	Sync Out (optional)		
	Jitter: electr. trigger exit - laser pulse	ns	< 0.2
	Warm-up time	s	< 20
	Control		external Trigger
	Warranty[4]		200 million pulses or 2 years
	Certifications*		CE, ETL* (ANSI/UL 61010-1, CAN/CSA C22.2#61010-1), FDA
	Laser class		3B / IIIb

			MNL 330
Electrical interface	Power supply[3]	V DC	24
	Periodic peak current	A	3.0
	Periodic peak power = max. power	W	72
	Average current	A	2.75 (@ 300 Hz operation)
	Average power	W	66 (@ 300 Hz operation)

			MNL 330
Environment and conditions of use	Operating temperature	°C	+15 ... +38
	Storage temperature	°C	- 10 ... +60
	Max. relative humidity (non-condensing)	%	85
	Air pressure	mbar	750 ... 1,300
	Dimensions of the laser (L x W x H)	mm	300 x 87 x 87
	Weight of the laser	kg	2.8

* Report No. 2212292WIE-004
[1] without fiber (higher energies on request)
[2] at max. repetition rate; measuring at 5 m distance
[3] via external wide-range power supply (100... 240 V AC)
[4] extension on request

Subject to technical changes.



Laser Radiation
Avoid Exposure To Beam
Class 3B Laser Product
Invisible laser radiation is emitted from this aperture

State: 1.7.2017

LTB Lasertechnik Berlin GmbH • Am Studio 2c • D-12489 Berlin • Germany
+49.30.91 20 75 - 100 • +49.30.91 20 75 - 199 • info@ltb-berlin.de • www.ltb-berlin.de