

Multi-Wavelength Laser



MWL 400

Pulsed Multi-Wavelength Laser in the UV-VIS-NIR Range

- Up to 300 Hz
- Powerful
- For variable excitation
- Easy to use

The MWL 400 is a powerful laser system consisting of a MNL nitrogen laser and a compact and modular wavelength tuning module.

4 wavelengths in the $\mu\text{J}/\text{kW}$ range are provided at a maximum repetition rate of 300 Hz.

337 nm and 3 other wavelengths from the VIS-NIR range are coupled into fibers and provided sequentially at one output or simultaneously at four outputs.

The wavelengths can manually or automatically be selected.

The advantage of the MWL 400 over flashlamps with filters or monochromator is the high coupling efficiency into fibers. The fiber diameters can be chosen between 100 μm and 1000 μm .

Options:

- 8 wavelengths
- attenuator
- energy monitor
- low jitter sync out

- For bioreader applications
- LIF

Laser

Specifications MWL 400

MWL 400

| | | | |
|---------|--|----|--|
| General | Wavelength | nm | 337.1 and 3 x VIS-NIR (e.g. 488/550/635) |
| | Spectral bandwidth | nm | 8 |
| | Pulse halfwidth FWHM, typ. | ns | 3 |
| | Pulse energy, typ. | µJ | µJ range |
| | Pulse power, typ. | kW | kW range |
| | Repetition rate | Hz | up to 300 |
| | Energy stability SD (for all rep. rates) | % | 3 |
| | Trigger In | | Optical or electrical (TTL) |
| | Jitter: ext. trigger - laser pulse | ns | ± 2 |
| | Pulse delay: ext. trigger - laser pulse | ns | 1,500 ± 10 % |
| | Sync Out (optional) | | |
| | Jitter: electr. trigger exit - laser pulse | ns | < 0.2 |
| | Warm-up time | s | < 20 |
| | Control | | External trigger or software |
| | Warranty | | Depending on the pump laser or 1 year |
| | Certifications * | | CE, ETL, (UL, CSA, VDE, Semco), FDA |
| | Laser class | | 3B / IIIb |

MWL 400

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|----------------------|---------------------------|------|-----|
| Electrical interface | Power supply | V DC | 24 |
| | Periodic peak current | A | 3.5 |
| | Average power consumption | VA | 60 |

MWL 400

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|-----------------------------------|---|------|----------------|
| 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 | 450 x 100 x 90 |
| | Weight of the laser | kg | 3 |

* in process

Subject to technical changes.

