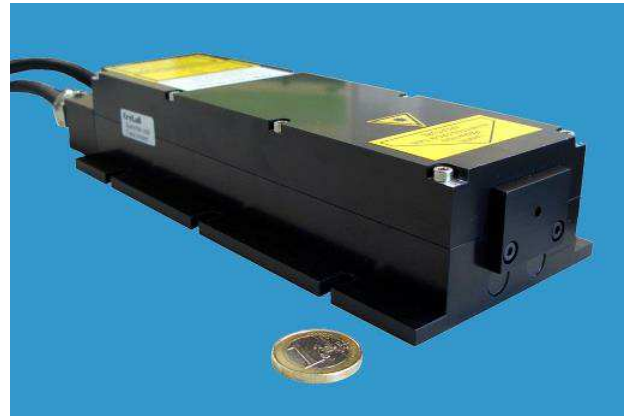


DSS 1064-450

Diode pumped passively Q-switched solid state laser

- 1064 nm
- single pulse
- < 1.7 ns
- 1 – 100 Hz (up to 1 kHz optional)
- > 450 μ J



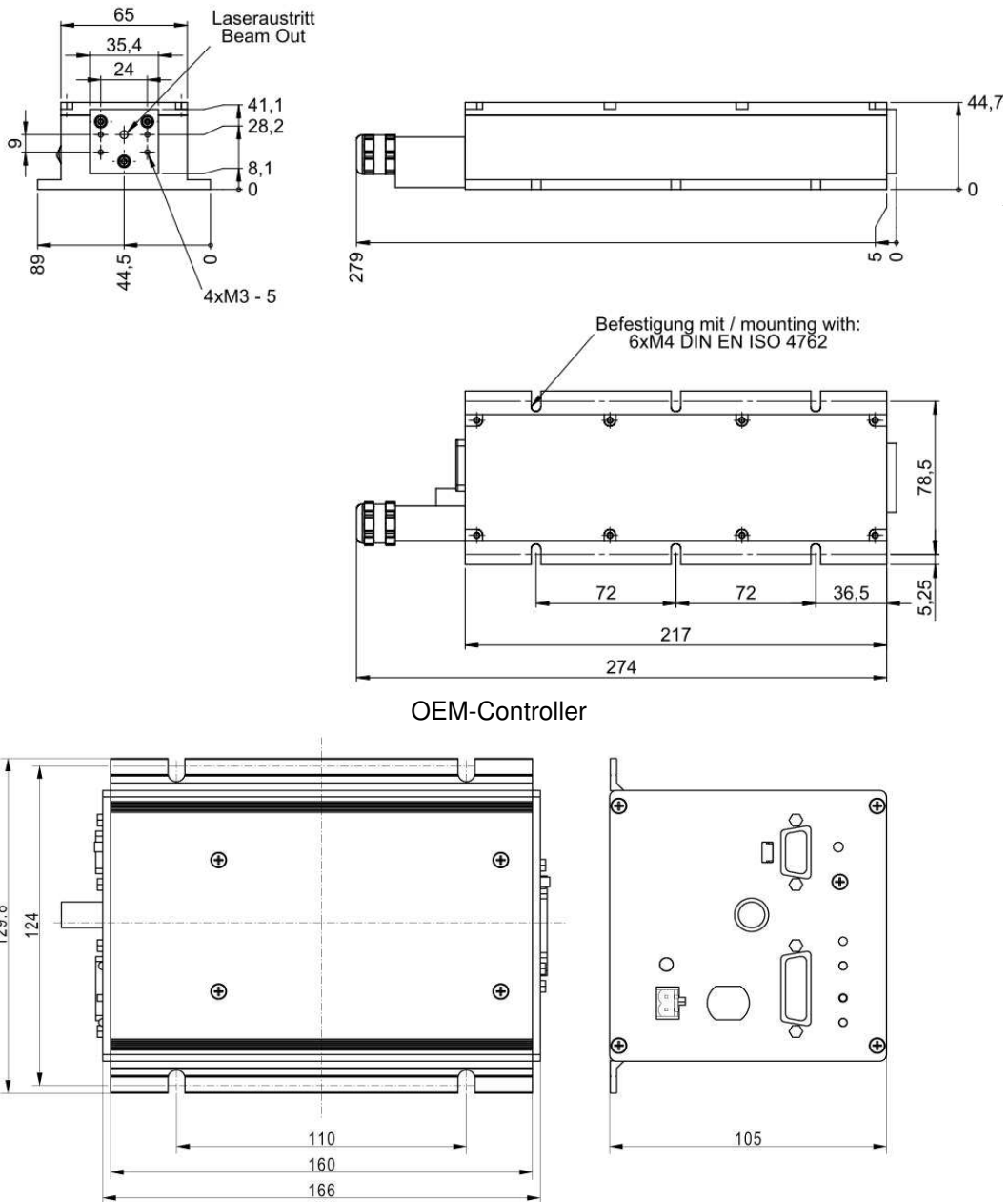
biology · biomedicine · chemistry · analytics

| | | |
|------------------------|--|---|
| Optical Data | Wavelength | 1064 nm |
| | Spatial Mode | TEM ₀₀ |
| | M ² | < 1.5 |
| | Beam Divergence (full angle) | < 6.5 mrad |
| | Beam Ellipticity | < 2:1 |
| | Waist Diameter | 380 ± 100 μ m (located at about 110mm inside the laser head) |
| | Beam Diameter | 650 ± 150 μ m (at laser exit) |
| | Peak Power | > 250 kW @ 1 - 100 Hz |
| | Pulse Energy | > 450 μ J @ 1 - 100 Hz (>150 μ J @ 1kHz option) |
| | Pulse Repetition Rate (with external trigger) | 1 - 100 Hz |
| | Pulse Width (FWHM) | < 1.7 ns |
| | Polarization Ratio | > 100:1, vertical |
| | Long term pulse energy stability (6 hours) ¹⁾ | < ± 6 % |
| | Pulse-To-Pulse Stability ²⁾ | < 1 % rms |
| | Laser Classification | 3B / IIIb |
| Optical Output | Free Beam | |
| Electrical Data | Electrical Power Consumption | < 70 W |
| | Line Voltage | 100 - 240 V AC (50-60 Hz) or 24 V DC |
| Interface | RS 232, USB | |
| Miscellaneous | Warm-up Time | < 15 min |
| | Operating Temperature | 18 - 38 °C |
| | Laser Head Size | 217 x 65 x 45 mm (core dimensions) |
| Options | SMA-connector for fiber with core diameter ≥ 200 μ m | |
| | Synchronization signal output (rise time < 2 ns) | |
| | Manual shutter or electrical beam blocker | |
| | Upgrade to 1 kHz repetition rate (parameters on request) | |
| | External telescope (e.g. M=5) | |
| | Manual or electrical attenuator | |
| | Stand Alone System (incl. key-switch, heat sink, manual shutter; CDRH compliant) | |

¹⁾ Drift over 6 hours, energy averaged over 10 sec after 5 min of continuous operation, temperature variation < 3 °C/hour.

²⁾ RMS over 1000 pulses after 5 min of continuous operation.

Laser Head and Controller



OEM-Controller

Laser Safety Labels

The DSS1064-450 lasers are class 3B / IIIb according to IEC 60825-1:2014

| | | |
|---|---|---|
| <p>wavelength: 1064 nm max. output: 1 mJ pulse duration: <2 ns max. repetition rate: 200 Hz</p> <p>Complies with IEC 60825-1:2014 Complies with 21CFR 1040.10 and 1040.11 except for deviations pursuant to Laser Notice No. 50, dated July 26, 2001</p> | <p>WARNING - INVISIBLE LASER RADIATION AVOID EXPOSURE TO BEAM</p> <p>CLASS 3B LASER PRODUCT</p> | <p>IS EMITTED FROM THIS APERTURE</p> <p>LASER RADIATION</p> |
|---|---|---|

