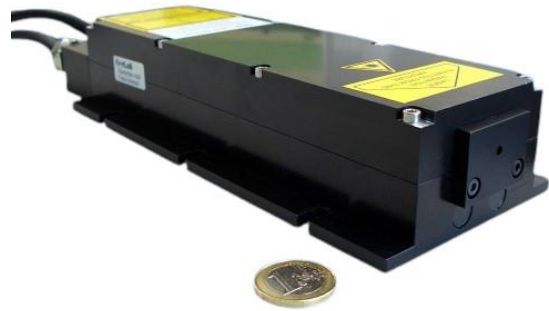


FTSS 355-50

Diode pumped passively Q-switched solid state laser

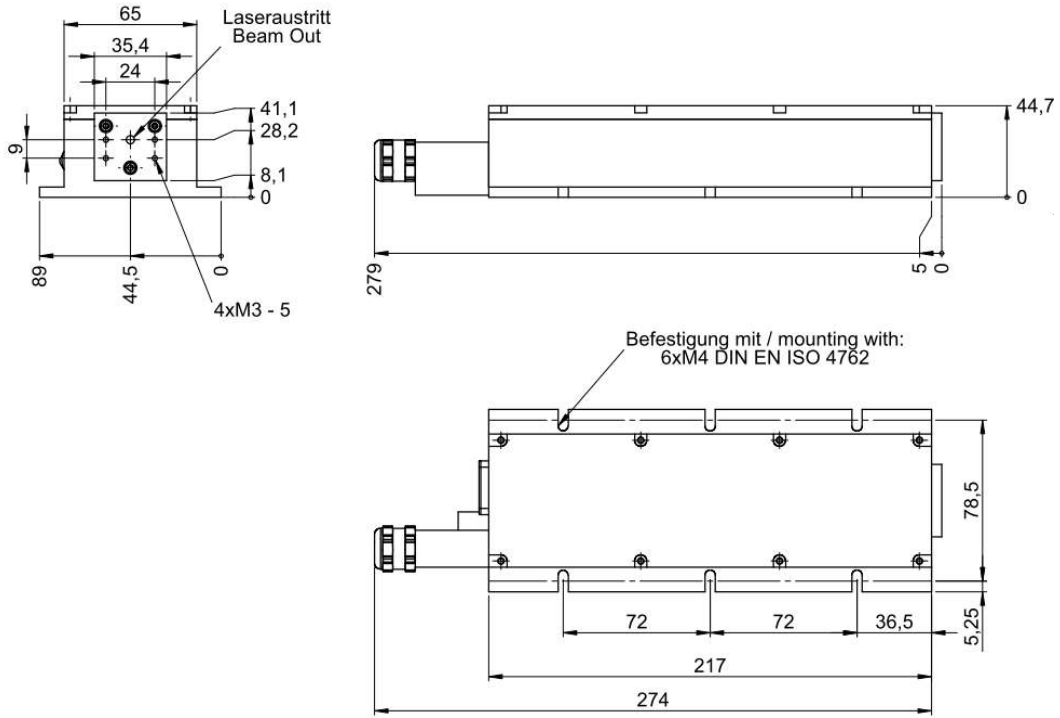
- 355 nm
- single pulse
- < 1.3 ns
- 1 – 100 Hz
- > 70 μ J



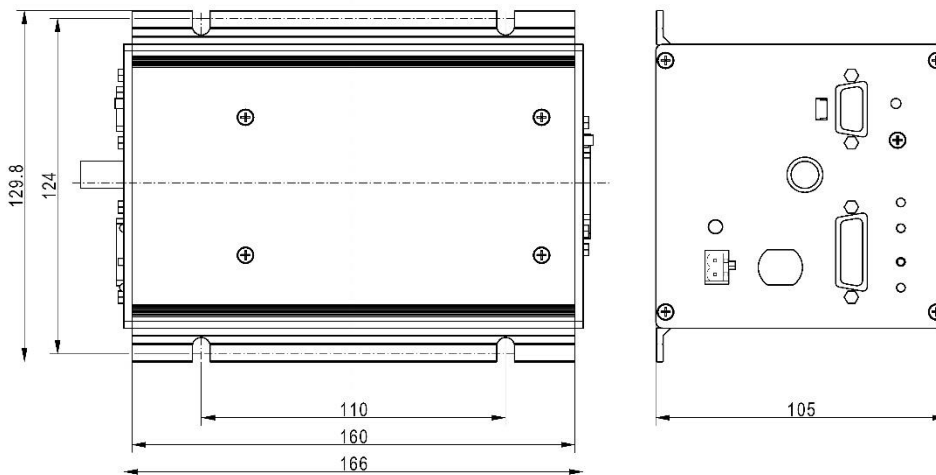
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| | | |
|--|--|---|
| Optical Data | Wavelength | 355 nm |
| | Spatial Mode | TEM ₀₀ |
| | M ² | < 1.5 |
| | Beam Divergence (full angle) | < 3.5 mrad |
| | Beam Ellipticity | < 1.5 : 1 |
| | Waist Diameter | 280 ± 80 μ m (located at about 80mm inside the laser head) |
| | Beam Diameter | 300 ± 100 μ m (at laser exit) |
| | Peak Power | > 60 kW @ 1 - 100 Hz |
| | Pulse Energy | > 70 μ J @ 1 - 100 Hz |
| | Pulse Repetition Rate (with external trigger) | 1 - 100 Hz |
| | Pulse Width (FWHM) | < 1.3 ns |
| | Polarization Ratio | > 100:1, vertical |
| | Long term pulse energy stability (6 hours) ¹⁾ | < ± 3 % |
| | Pulse-To-Pulse Stability ²⁾ | < 1 % rms |
| | Laser Classification | 3B / IIIb |
| Residual Emission | < 0.5 mW @ 1064 nm (Class 3R) < 0.1 mW @ 532 nm (Class 2) | |
| 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 \geq 100 μ m | |
| | Synchronization signal output (rise time < 2 ns) | |
| | Manual shutter or electrical beam blocker | |
| | Manual or electrical driven wavelength switch 355 nm / 532 nm | |
| | Higher repetition rates 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 FTSS355-50 lasers are class 3B / IIIb according to IEC 60825-1:2014

| | | |
|--|---|---|
| <p>wavelength: 355 nm max. output: 300 µJ pulse duration: <1.5 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> |
|--|---|---|

