efficient.

Simple replacement of Kr+ gas laser



TopWave 405 - 1 Watt @ 405 nm

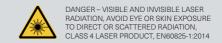
High coherence diode laser for lithography and holography

- Low cost of operation
- 1 Watt @ 405 nm
- Excellent beam quality, typical M² = 1.15
- Coherence length > 100 m





TopWave 405



Specifications	TopWave 405
Wavelength	405 ± 0.5 nm
Linewidth (@ 5 us)	< 1 MHz
Coherence length	> 100 m
Output Power	1 W
Beam Waist Diameter	1.5 ± 0.2 mm
Beam Waist location	Front bezel ± 25% of Rayleigh range
Transverse Mode	TEM _∞
M ² typ. (max.)	1.15 (≤ 1.3)
Beam Divergence (full-angle)	≤ 0.6 mrad
Beam Ellipticity	0.9 - 1.1
Astigmatism	± 25% of Rayleigh range
Beam Pointing Stability*	≤ 5 µrad
Polarization	linear, vertical, ± 3°, > 100:1
Output Power Stability (over 8h)	≤ 1 %
RMS Noise (10 Hz - 10 MHz)	≤ 0.6 %
Warm-Up Time Cold Start From Standby	< 2 h < 15 min
Lifetime (min. / typ.)	5000 h / 10000 h
Utility and Environmental Requiremental	nts
Laser Head Dimensions (H x W x D) Weight Cooling	127 x 295 x 500 mm³ 22 kg Conduction**
Umbilical Length	2 m
Control Unit Dimensions (H x W x D) Weight Cooling	154 x 448 x 378 mm³ 9 kg Convection
Operating Temperature Range	20 to 30 °C, stabilized to ± 1 °C, non-condensing
Shipping Requirements	-10 to +50 °C, shipping in a non-condensing environment
Power Supply	AC 100-240 V, 50/60 Hz
Power Consumption (typ.)	< 100 W
Communication Interface	Ethernet, USB
* RMS over 8h @ ambient temperature drift less ** Sufficient heat sink has to be provided.	s than ± 1 K