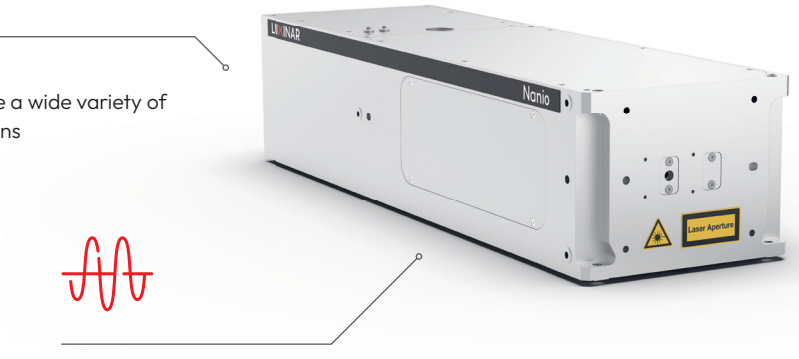
LUXINAR
Industrial lasers that last

Nanio | Nanosecond lasers

Customized solutions for perfect results



Highest flexibility
Designed to provide a wide variety of customization options

Superior pulse-to-pulse stability
Optimized control functions for stable process results

Multiple wavelengths
From 355 nm up to 1342 nm

Part of Pulsecore® - Every pulse predictable.

With Pulsecore®, you get absolute process stability for short- and ultrashort-pulse laser manufacturing.

Compact. Powerful. Reliable.

Multiple wavelengths and customization options

The Nanio series of nanosecond DPSS lasers is a highly reliable and field-proven tool for industrial laser processing systems, even in 24/7 operation. This series is specifically designed for easy customization and is available in a variety of wavelengths.

Find out how you can take your laser machines to the next level with our nanosecond Q-switched lasers.

Benefits

Minimize downtime

The Nanio Q-switched nanosecond lasers are designed for reliability and flexibility. The Nanio series offers customizable laser parameters that enable the highest speed and quality for your laser process.

The modular design ensures easy maintenance and minimizes downtime. Accelerate your production with the high performance of Nanio Q-switched nanosecond lasers.

Applications

Flexible lasers for a wide range of applications

- ID card marking
- Wafer marking
- Plastic marking
- Glass cutting and drilling
- Wafer dicing
- Wafer debonding

Advantages

Designed for demanding industrial applications

The Nanio Q-switched nanosecond laser is designed for applications that benefit from excellent beam quality with optimized pulse width and high pulse intensity over a wide range of operating conditions. Its features:

- Customizable laser parameters
- High peak power and short pulse width
- Field proven long life pump diode modules

Rev. 1.0, 10/2026

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Specifications

Nanio	355	532
Laser		
Model	355-8-V-60	532-18-Y
Laser medium	Nd:YVO_4	Nd:YAG
Central wavelength	355 nm	532 nm
Laser performance		
Nominal power	8 W @ 60 kHz	18 W @ 10 kHz
Repetition rate	single shot to 300 kHz	single shot to 100 kHz
Pulse width	< 25 ns @ 60 kHz	< 40 ns @ 10 kHz
Pulse energy	133 µJ @ 60 kHz	1800 µJ @ 10 kHz
Peak power	> 5.3 kW @ 60 kHz	> 45 kW @ 10 kHz
Pulse-to-pulse stability (rms)	< 2.0 % @ 60 kHz	< 1.5 % @ 10 kHz
Power stability (rms, 8 h)	< 2.0 %	< 2.0 %
Laser beam propagation		
Spatial mode	M^2 < 1.4, TEM_{00}	M^2 < 1.3, TEM_{00}
Nom. beam diameter (at waist)	0.24 mm	0.5 mm
Nom. waist location (from output)	-333 mm	-324 mm
Nom. beam diameter (at output)	0.9 mm	0.8 mm
Beam divergence (full angle)	2.6 mrad	1.7 mrad
Polarization	vertical, > 100:1	horizontal, > 100:1
Circularity	> 90 %	> 85 %
Operating specifications		
Warm-up time	< 15 min	< 15 min
Operating voltage laser	115 – 230 VAC ± 10 %, 50 – 60 Hz	115 – 230 VAC ± 10 %, 50 – 60 Hz
Laser power consumption	< 500 W	< 500 W
External control	RS232, USB, TTL, analog Q-switch control	
Cooling and ambient		
Cooling	water	water
Ambient temperature	15 – 40 °C, non-condensing	15 – 40 °C, non-condensing
Dimensions and weights		
Dimensions laser head (L × W × H)	590 × 180 × 135 mm³	590 × 180 × 135 mm³
Dimensions 19” control unit (L × W × H)	500 × 447 × 88.1 mm³, 2 RU high	500 × 447 × 88.1 mm³, 2 RU high
Weight laser head	19 kg	19 kg
Weight 19” control unit	12 kg	12 kg

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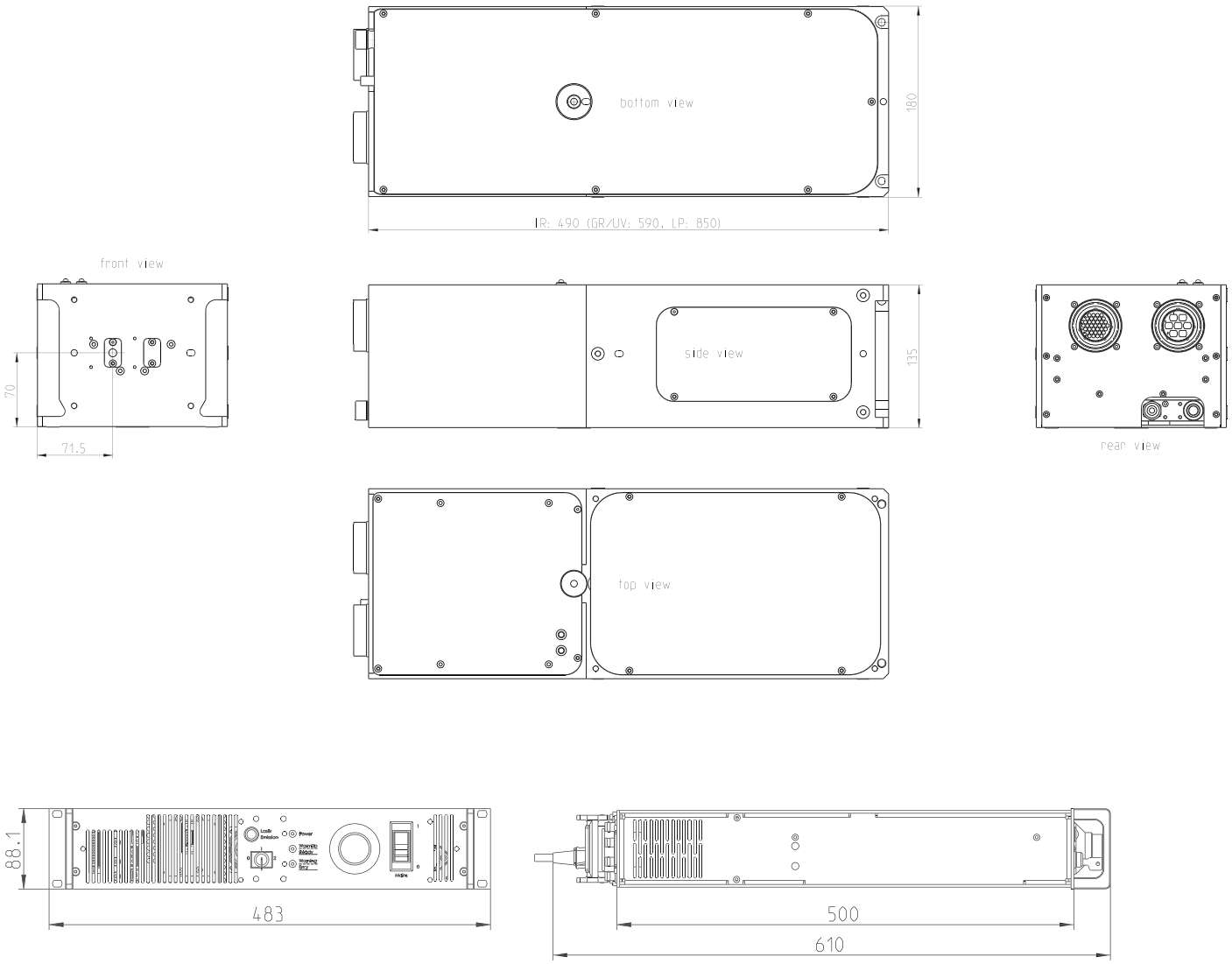
LUXINAR
Industrial lasers that last

Specifications

Nanio	1064			
Laser				
Model	1064-20-V-20	1064-20-Y	1064-16-V-LP	1064-12-Y-LP
Laser medium	Nd:YVO_4	Nd:YAG	Nd:YVO_4	Nd:YAG
Central wavelength	1064 nm	1064 nm	1064 nm	1064 nm
Laser performance				
Nominal power	20 W @ 20 kHz	18 W @ 10 kHz	15 W @ 50 kHz	12 W @ 10 kHz
Repetition rate	single shot to 60 kHz	single shot to 50 kHz	single shot to 150 kHz	1 to 20 kHz
Pulse width	< 10 ns @ 20 kHz	< 40 ns @ 10 kHz	< 100 ns @ 50 kHz	< 100 ns
Pulse energy	1000 µJ @ 20 kHz	1800 µJ @ 10 kHz	300 µJ @ 50 kHz	1200 µJ @ 10 kHz
Peak power	> 100 kW @ 20 kHz	> 45 kW @ 10 kHz	> 3 kW @ 50 kHz	> 12 kW @ 10 kHz
Pulse-to-pulse stability (rms)	< 1.0 % @ 20 kHz	< 1.0 % @ 10 kHz	< 1.0 % @ 50 kHz	< 1.5 % @ 10 kHz
Power stability (rms, 8 h)	< 1.0 %	< 1.0 %	< 1.0 %	< 2.0 %
Laser beam propagation				
Spatial mode	M^2 < 1.2, TEM_{00}	M^2 < 1.2, TEM_{00}	M^2 < 1.2, TEM_{00}	M^2 < 1.2, TEM_{00}
Nom. beam diameter (at waist)	0.6 mm	0.6 mm	1.2 mm	0.6 mm
Nom. waist location (from output)	-89 mm	-57 mm	-273 mm	410 mm
Nom. beam diameter (at output)	0.7 mm	0.6 mm	1.3 mm	1.2 mm
Beam divergence (full angle)	2.7 mrad	2.7 mrad	1.3 mrad	2.55 mrad
Polarization	vertical, > 100:1	vertical, > 100:1	vertical, > 100:1	vertical, > 100:1
Circularity	> 90 %	> 90 %	> 90 %	> 90 %
Operating specifications				
Warm-up time	< 15 min	< 15 min	< 15 min	< 15 min
Operating voltage laser	115 – 230 VAC ± 10 %, 50 – 60 Hz	115 – 230 VAC ± 10 %, 50 – 60 Hz	115 – 230 VAC ± 10 %, 50 – 60 Hz	115 – 230 VAC ± 10 %, 50 – 60 Hz
Laser power consumption	< 500 W	< 500 W	< 500 W	< 500 W
External control	RS232, USB, TTL, analog Q-switch control			
Cooling and ambient				
Cooling	water	water	water	water
Ambient temperature	15 – 40 °C, non-condensing	15 – 40 °C, non-condensing	15 – 40 °C, non-condensing	15 – 40 °C, non-condensing
Dimensions and weights				
Dimensions laser head (L × W × H)	490 × 180 × 135 mm³	490 × 180 × 135 mm³	850 × 180 × 135 mm³	850 × 180 × 135 mm³
Dimensions 19” control unit (L × W × H)	500 × 447 × 88.1 mm³, 2 RU high	500 × 447 × 88.1 mm³, 2 RU high	500 × 447 × 88.1 mm³, 2 RU high	500 × 447 × 88.1 mm³, 2 RU high
Weight laser head	17 kg	17 kg	17 kg	22 kg
Weight 19” control unit	12 kg	12 kg	12 kg	12 kg

All values measured after laser warm-up. Luxinar follows a policy of continuous product improvement. All specifications are subject to change without notice. Luxinar Holding GmbH is DIN EN ISO 9001 certified. Rev. 1.0, 10 / 2026 | 903-0328-00

Technical drawings



Industrial lasers that last

VISIBLE AND INVISIBLE LASER RADIATION
AVOID EYE OR SKIN EXPOSURE TO DIRECT OR SCATTERED RADIATION
CLASS 4 LASER PRODUCT
DIN EN 60825-1: 2015-7

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