

# nanio series\*

Industrial DPSS Lasers

## High Rep. Rate Lasers

NANIO 532-14-V-400

NANIO 355-1-V-400

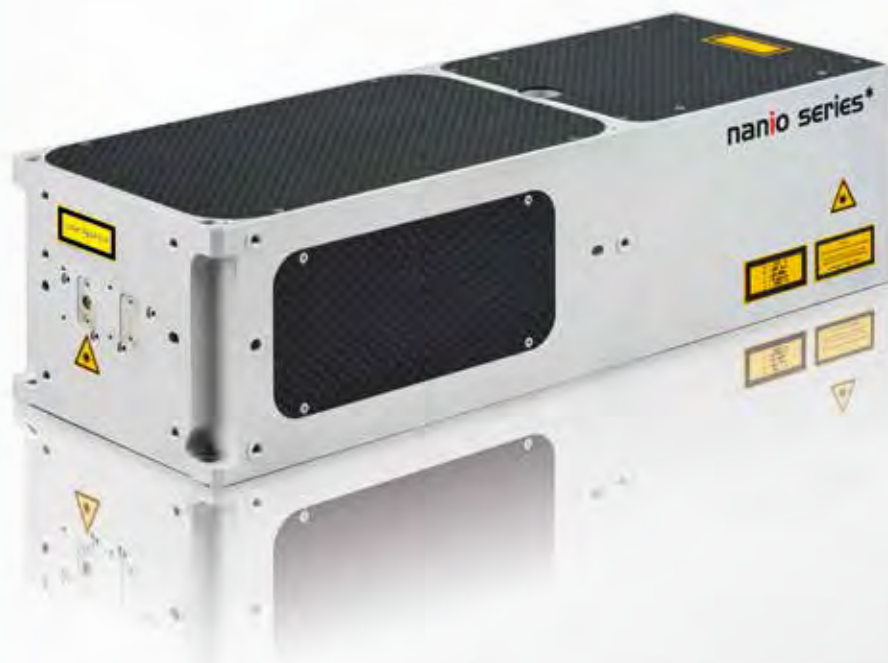


### Applications

- \* Display Manufacturing
- \* PV Manufacturing
- \* ITO Patterning
- \* Micromachining
- \* Scribing
- \* Scientific

### Features

- \* Outstanding performance & reliability
- \* Modular industrial design
- \* Easy integration and service
- \* Field proven long life pump diode modules
- \* Superior pulse-to-pulse stability
- \* Optimized performance for your application



## High Rep. Rate Lasers

### Specifications

	<b>532-14-V-400</b>	<b>355-1-V-400</b>
Laser Medium	Nd:YVO <sub>4</sub>	Nd:YVO <sub>4</sub>
Wavelength	532 nm	355 nm
Nominal Power	14 W @ 400 kHz	1 W @ 400 kHz
Repetition Rate	Single Shot to 500 kHz	Single Shot to 500 kHz
Pulse Width	< 60 ns @ 400 kHz	< 60 ns @ 400 kHz
Pulse Energy	35 µJ @ 400 kHz	2.5 µJ @ 400 kHz
Peak Power	> 0.58 kW @ 400 kHz	> 0.04 kW @ 400 kHz
Pulse-to-Pulse Stability	< 3% @ 400 kHz	< 4% @ 400 kHz
Power Stability (rms, 8h)	< 2%	< 2%
Spatial Mode	M <sup>2</sup> < 1.3, TEM <sub>00</sub>	M <sup>2</sup> < 1.4, TEM <sub>00</sub>
Nominal Beam Diameter (at waist)	0.2 mm	0.16 mm
Nominal Waist Location (from output)	-320 mm	-280 mm
Beam Divergence (full angle)	4.4 mrad	3.9 mrad
Nominal Beam Diameter (at output)	1.4 mm	1.2 mm
Polarization	Horizontal, > 100:1	Vertical, > 100:1
Circularity	> 90 %	> 85 %
Warm-up Time	< 15 min	< 15 min
Operating Voltage	115-230 VAC ± 10 %, 50-60 Hz, single phase	115-230 VAC ± 10 %, 50-60 Hz, single phase
Laser Power Consumption	< 500 W	< 500 W
Cooling	Water-to-Water or Water-to-Air	Water-to-Water or Water-to-Air
Ambient Temperature	15-40 °C (59-104 °F), non-condensing	15-40 °C (59-104 °F), non-condensing
External Control	RS232, USB, TTL and Analog Q-Switch Control	RS232, USB, TTL and Analog Q-Switch Control
Dimensions Laser Head (L x W x H)	590 x 180 x 135 mm (23.23 x 7.09 x 5.31 in.)	590 x 180 x 135 mm (23.23 x 7.09 x 5.31 in.)
Dimensions Power Supply (L x W x H)	500 x 447 x 88.1 mm (19.69 x 17.6 x 3.47 in.) 19" system, 2 RU high	500 x 447 x 88.1 mm (19.69 x 17.6 x 3.47 in.) 19" system, 2 RU high
Weight Laser Head	19 kg (41.9 lbs.)	19 kg (41.9 lbs.)
Weight Power Supply	12 kg (26.5 lbs.)	12 kg (26.5 lbs.)

### Available Options

Umbilical length between laser head and power supply 1-20 m. Standard is 3 m. External beam expander box, beam expanders and scan head adapter flanges. Customized power supply front design. Variable attenuator.

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InnoLas follows a policy of continuous product improvement. All specifications are subject to change without notice. InnoLas Laser GmbH is DIN EN ISO 9001 certified.

