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ISO 9001:2008

PhoxX®

High-Performance diode lasers

Small and compact design

21 different wavelengths between 375nm and 830nm

Single-Mode optical output power up to 300mW

TEC temperature-stabilized and conductively cooled through baseplate

High-Stability CW operation and high-speed digital and analogue modulation

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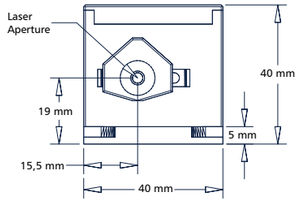
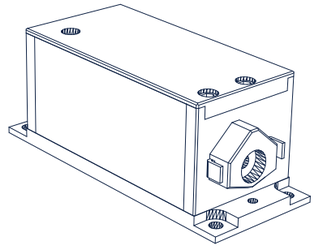
Smaller than you are used to
Stronger than expected !

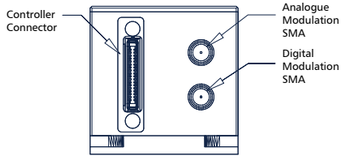
The Omicron PhoxX® Laser Series offers high-performance at a compact design. A broad variety of wavelengths and single-mode emission up to 300mW cover a wide range of applications. Easy integration into existing or future designs is assured by versatile input signal types. The USB2.0 and the RS-232 interface allow deep integration of the lasers into the applications process.

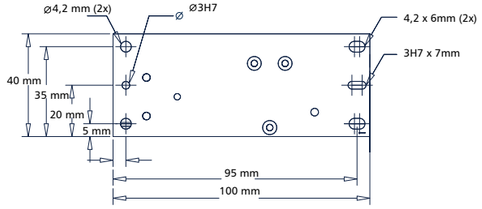
Applications:
Flow Cytometry
Confocal Microscopy
Printing / CtP
Microlithography
Reprographics
Test and Measurement
Machine Vision
....

PhoxX® Laser head

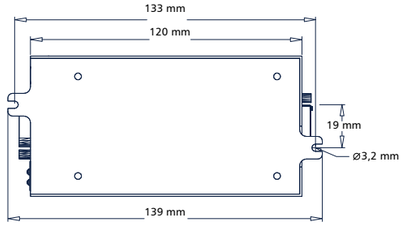


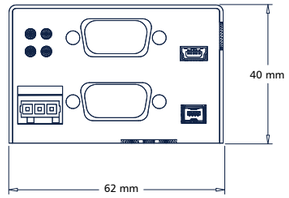






PhoxX® Controller





PhoxX® Laser Series Specification Table

Model	PhoxX® 375 - 20 / 70	PhoxX® 395	PhoxX® 405 - 60 / 120 / 300	PhoxX® 415	PhoxX® 425	PhoxX® 445 - 50 / 100	PhoxX® 457	PhoxX® 460	PhoxX® 473 - 20 / 80 / 100	PhoxX® 488 - 20 / 60 / 80 100 / 150 / 200	PhoxX® 515 - 25 / 50 / 80	PhoxX® 638 - 40 / 100 / 150	PhoxX® 642	PhoxX® 647	PhoxX® 660	PhoxX® 685	PhoxX® 705	PhoxX® 730	PhoxX® 785	PhoxX® 808	PhoxX® 830
Wavelength (+/- 5nm)	375nm	395nm	405nm	415nm	425nm	445nm	457nm	460nm	473nm	488mn	515nm	638nm	642nm	647nm	660nm	685nm	705nm	730nm	785nm	808nm	830nm
Optical output power	20mW 70mW	120mW	60mW 120mW 300mW	120mW	120mW	50mW 100mW	100mW	100mW	20mW 80mW 100mW	20mW 60mW 80mW 100mW 150mW 200mW	25mW 50mW 80mW	40mW 100mW 150mW	140mW	140mW	130mW	50mW	40mW	40mW	120mW	140mW	140mW
Typical beam diameter (1/e2)	1.0...1.5mm (1/e²), (depends on wavelength) - 0.7mm (1/e²) +/- 0.1mm with option XX.DSO																				
Beam quality M2	< 1.2																				
Beam ellipticity	< 1.2:1																				
Beam pointing stability (rad/°C)	< 5																				
Polarisation ratio	> 100:1 vertical																				
Warm up time	< 3 minutes																				
Operation modes																					
Mode 1	CW Operation																				
Mode 2	Analogue Modulation																				
Mode 3	Digital Modulation																				
Mode 4	Mixed Analogue & Digital Modulation																				
Digital modulation																					
Modulation bandwidth	> 180MHz																				
Signal type	TTL (200 Ohm) / 0...IV (50 Ohm) / LV-PECL / PECL / LVDS (user-configurable)																				
Analogue modulation																					
Modulation bandwidth	> 3MHz																				
Signal type	0...IV (50 Ohm) / 0...5V (1.2k Ohm) (user-configurable)																				
Laser enable input																					
Modulation bandwidth	> 250kHz (complete ON/OFF)																				
Signal type	TTL (2 kOhm)																				
RMS noise characteristics																					
20Hz ... 10MHz	< 0.2%																				
10MHz ... 500MHz	< 0.2%																				
Long-term power stability (8h)	(< 0.5% in CW operation mode)																				
Electrical properties																					
Laser operating voltage	5.00 VDC +/- 0.50V																				
Computer interface																					
Type	RS-232 and USB2.0																				
Mechanical properties																					
Dimensions laser head	100 x 40 x 40 mm (l x w x h)																				
Dimensions laser controller	120 x 62 x 40 mm (l x w x h)																				

more information: www.omicron-laser.de