

## Worldwide Distributors

### Baltic, Nordic

**Von Gegerfelt Photonics**  
Tel.: +49-6251 860 99 20  
Fax: +49-6251 860 99 17  
dvg@vgphotonics.eu  
www.vgphotonics.eu

### Italy

**LOT-Oriel Italia**  
Tel.: +39-02 26 82 21 04  
Fax: +39-02 26 82 50 07  
info@lot-oriel.it  
www.lot-oriel.it

### Singapore/Malaysia

**PhotoniTech Pte Ltd**  
Tel.: +65-65 70 33 86  
Fax: +65-62 33 91 71  
csales@photonitech.com  
www.photonitech.com

### Benelux

**Applied Laser Technology (ALT)**  
Tel.: +31-499 37 53 75  
Fax: +31-499 37 53 73  
info@alt.nl  
www.alt.nl

### Japan

**Japan Laser Corp.**  
Tel.: +81-352 85 08 61  
Fax: +81-352 85 08 60  
lase@japanlaser.jp  
www.japanlaser.jp

### Taiwan

**Tayhwa Technology Co. Ltd.**  
Tel.: +88-62 23 56 97 37  
Fax: +88-62 23 56 96 59  
tayhwa@tayhwa.com.tw  
www.tayhwa.com.tw

### China

**Pinnacle Scientific Corporation**  
Tel.: +86-571 88 22 51 51  
Fax: +86-571 88 22 52 52  
sales@psci.cn  
www.psci.cn

### Korea

**DongWoo Optron Co., Ltd.**  
Tel.: +82-317 65 03 00  
Fax: +82-317 65 02 22  
optron@optron.co.kr  
www.optron.co.kr

### Turkey

**Mitra Anonim Sirketi**  
Tel.: +90-212 347 47 40  
Fax: +90-212 347 47 45  
info@mitralaser.com  
www.mitralaser.com

### France

**Photon Lines**  
Tel.: +33-130 08 99 00  
Fax: +33-130 08 99 09  
info@photonlines.com  
www.photonlines.fr

### Poland

**Amecam**  
Tel.: +48-22 207 22 78  
Fax: +48-22 207 28 77  
amecam@amecam.pl  
www.amecam.pl

### UK

**Photon Lines Ltd.**  
Tel.: +44-12 95 72 42 25  
Fax: +44-12 95 72 42 26  
info-uk@photonlines.com  
www.photonlines

### Israel

**Militram**  
Tel.: +97-299 58 18 60  
Fax: +97-299 57 43 83  
militram@militram.com  
www.militram.com

### Spain

**LASER Technology S.L.**  
Tel.: +34-937 50 01 21  
Fax: +34-937 50 03 23  
josecochon@laser-technology.com  
www.laser-technology.com

### USA

**Market Tech, Inc.**  
Tel.: +1-83 14 61 11 01  
Fax: +1-83 14 61 11 36  
info@markettechinc.net  
www.markettechinc.net

### For Life Science Applications

Germany, Austria, Switzerland, Scandinavia

### Von Gegerfelt Photonics

Tel.: +49-6251 860 99 20  
Fax: +49-6251 860 99 17  
dvg@vgphotonics.eu  
www.vgphotonics.eu



Omicron-Laserage Laserprodukte GmbH  
Raiffeisenstrasse 5e  
63110 Rodgau, Germany  
Tel.: +49-61 06 82 24-0  
Fax: +49-61 06 82 24-10  
mail@omicron-laser.de  
www.omicron-laser.de



ISO 9001:2008



## High-Performance diode lasers

# PhoXX<sup>®</sup>

Small and compact design

21 different wavelengths  
between 375nm and 830nm

Single-Mode optical output  
power up to 250mW

TEC temperature-stabilized  
and conductively cooled  
through baseplate

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

## The Omicron PhoxX Laser Series

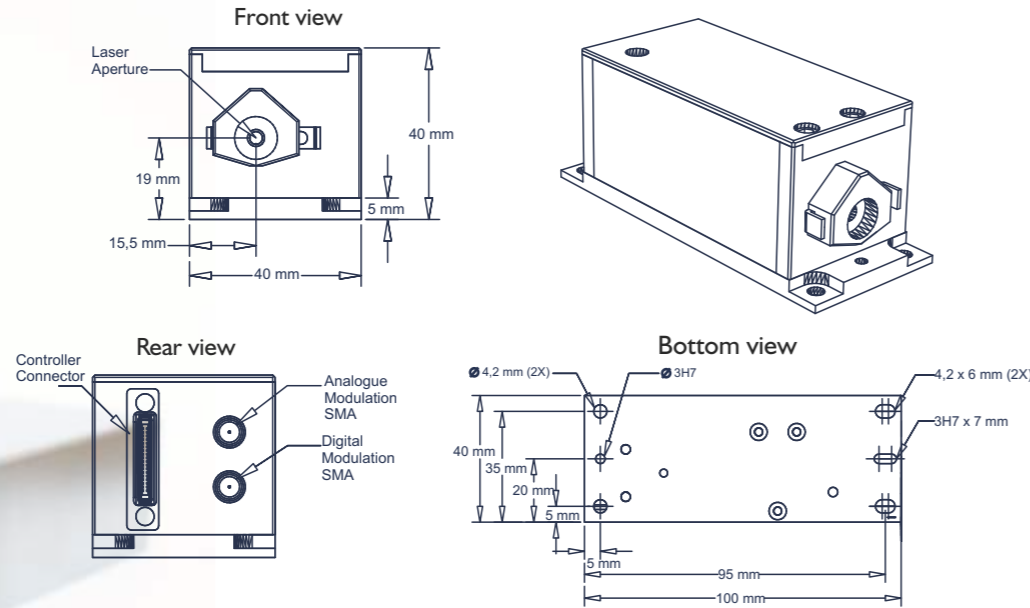
Smaller than you are used to  
Stronger than expected !

The Omicron PhoxX Laser Series offers high-performance at a compact design. A broad variety of wavelengths and single-mode emission up to 250mW 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.

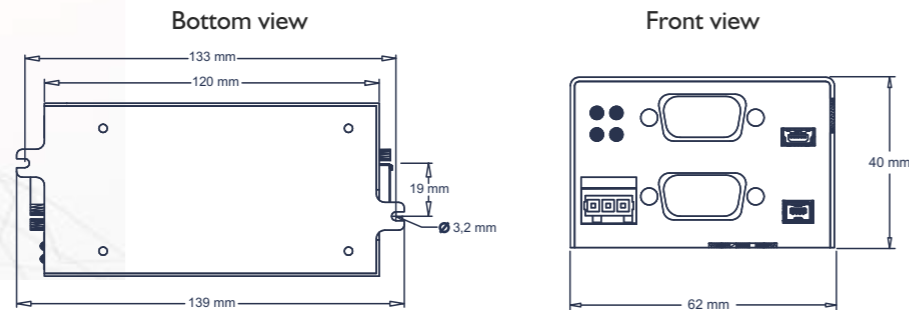
### Applications:

- Flow Cytometry
- Confocal Microscopy
- Printing / CtP
- Micro lithography
- Reprographics
- Test and Measurement
- Machine Vision
- ....

### PhoxX Laser head



### PhoxX Controller



## PhoxX Laser Series Specification Table

Model	PhoxX® 375-20/70	PhoxX® 395	PhoxX® 405-60/120/250	PhoxX® 415	PhoxX® 425	PhoxX® 425	PhoxX® 445-50/100	PhoxX® 457	PhoxX® 460	PhoxX® 473-20/80/100	PhoxX® 473-20/80/100	PhoxX® 488-20/60/80/100/150/200	PhoxX® 515-25	PhoxX® 638-40/100/150	PhoxX® 642	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	488nm	515nm	638nm	642nm	660nm	685nm	705nm	730nm	785nm	808nm	830nm		
Optical output power	20mW 70mW	20mW	60mW 20mW 250mW	20mW	20mW	50mW 100mW	100mW	100mW	20mW 80mW 100mW	20mW 60mW 80mW 100mW 150mW 200mW	25mW	40mW 100mW 150mW	40mW	30mW	50mW	40mW	40mW	40mW	20mW	140mW	140mW	
Typical beam diameter (1/e <sup>2</sup> )	1.0...1.5mm (1/e <sup>2</sup> ), (depends on wavelength) - 0.7mm (1/e <sup>2</sup> ) +/- 0.1mm with option XX.DSO																					
Beam quality M <sup>2</sup>	< 1.2																					
Beam ellipticity	< 1.2:1																					
Beam pointing stability (μrad/°C)	< 5																					
Polarisation ratio	> 100:1 vertical																					
Warm up time	< 3 minutes																					
<b>Operation modes</b>																						
Mode 1	CW Operation																					
Mode 2	Analogue Modulation																					
Mode 3	Digital Modulation																					
Mode 4	Mixed Analogue & Digital Modulation																					
<b>Digital modulation</b>																						
Modulation bandwidth	> 180MHz																					
Signal type	TTL (200 Ohm) / 0...1V (50 Ohm) / LV-PECL / PECL / LVDS (user-configurable)																					
<b>Analogue modulation</b>																						
Modulation bandwidth	> 3MHz																					
Signal type	0...1V (50 Ohm) / 0...5V (1.2k Ohm) (user-configurable)																					
<b>Laser enable input</b>																						
Modulation bandwidth	> 250kHz (complete ON/OFF)																					
Signal type	TTL (2 kOhm)																					
<b>RMS noise characteristics</b>																						
20Hz ... 10MHz	< 0.2%																					
10MHz ... 500MHz	< 0.2%																					
Long-term power stability (8h)	(< 0.5% in CW operation mode)																					
<b>Electrical properties</b>																						
Laser operating voltage	5.00 VDC +/- 0.50V																					
<b>Computer interface</b>																						
Type	RS-232 and USB2.0																					
<b>Mechanical properties</b>																						
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)																					