



## Turn-key OEM system with up to 50 W

### Back Side



LuOcean Mini Laser Source with open Cap

AC Socket  
Signal Connector (laser on, Interlock)  
Earth Pin

### Front Side



### Description:

Lumics' LuOcean™ Mini 4 turn-key systems offers an integrated diode laser system comprising of a direct diode laser light-source, laser-driver, power supply, and cooling block.

Its OEM form enables an easy integration fostered by the RS232 interface which is Labview compatible or can be addressed by an easy-to-implement proprietary controller software.

Power supply on LED - (green when powered on)

Interlock on LED (green when Interlock circuit closed). Interlock must be closed to turn the laser on

Laser power monitor range (0-100) in % of the maximum laser power

### Features & Functions:

- Up to 50 W power
- Wavelengths 940, 980, 1064nm ... are available\*
- 100% digital control via RS232 interface
- Power Monitor display and status LEDs
- AC Female Bulgin connector
- Labview compatible or proprietary controller software

### Benefits:

- Easy-to-integrate OEM system
- Compact design
- Secure diode laser operation
- Red-pilot laser (integrated)
- Detachable fiber
- Low noise

### Applications:

- Material processing
- Marking
- Analytics and sensing

### General Parameters

Type / Parameter		Unit
Power supply	100-240V AC, 50-60Hz	
Internal operating and (Ambient) temp , c.w.-operation	Top c.w. 10(5) - 35(40)	°C
Maximum fiber flange temperature	50	°C
Storage temperature	0-50	°C
Humidity / non condensing atmosphere	90	RH%
Compliance	CE, ROHS	
Dimensions (H x W x D)	275 x 275 x 88	mm
Weight	about 4.7	kg
Noise Emission	<67	dB

### Diode Laser Parameters

Type / Parameter		Unit
Optical output power	up to 60W(max. 25A) thermal load corresponding to 50W c.w. operation at 9xxnm	
Wavelength *	All LuOcean Mini 4 with e.g. 790, 808, 940, 980, 1064, 1470 or 1940	nm

### Pilot Laser Parameters

Type / Parameter		Unit
Wavelength	635 +/- 15 or 520 +/- 20nm	nm
Optical output power	<= 1.5	mW

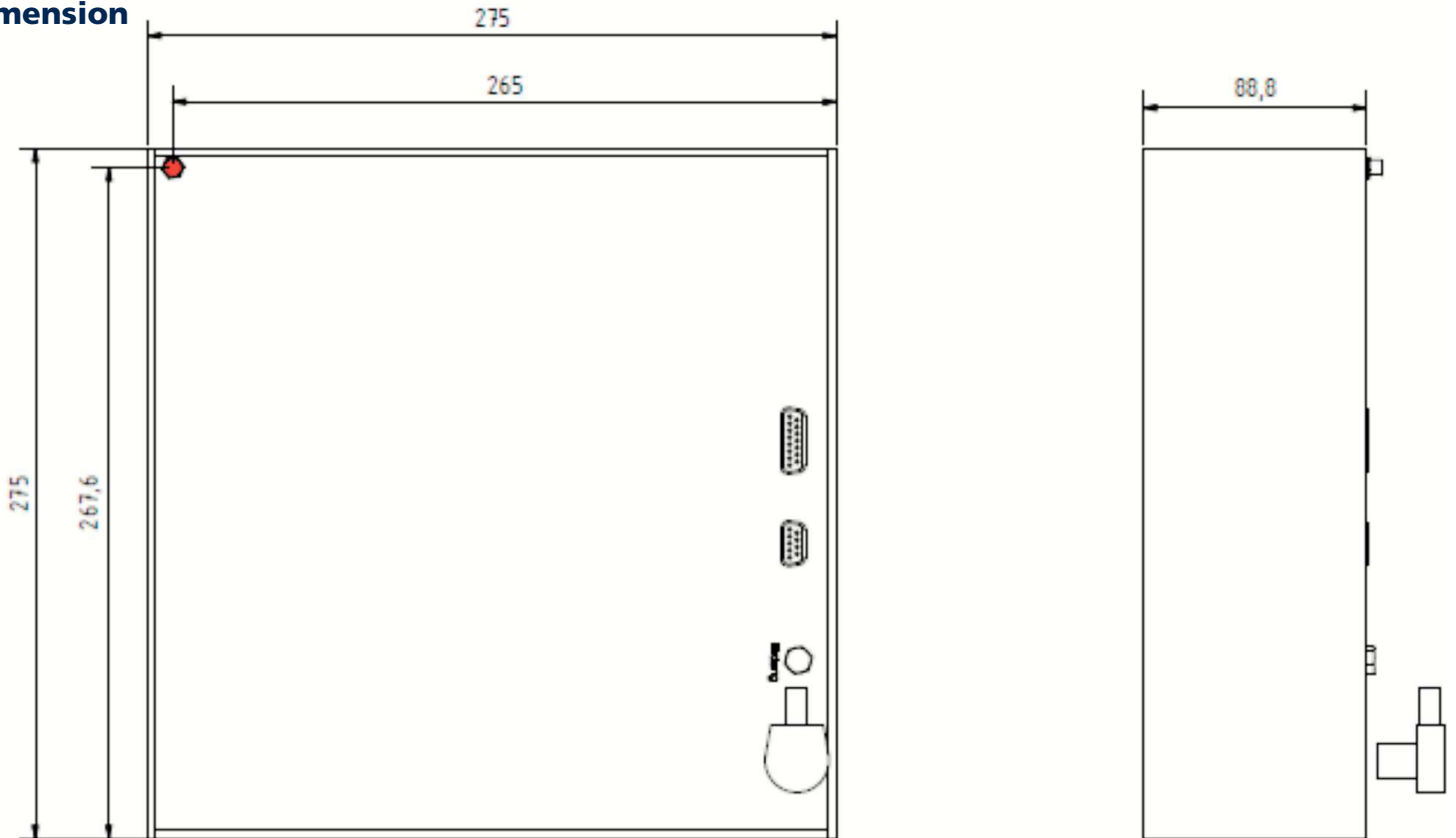
### Fiber Parameters

Type / Parameter		Unit
Diameter	depending on the LuOcean Mini 4 type e.g. 105, 200, 400 or 600	µm
Connector type	FSMA	

\* Other wavelengths on request

**We manufacture diode lasers.**

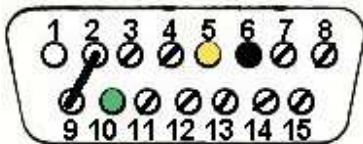
## Dimension



## AC Connector, Earth and Fuse



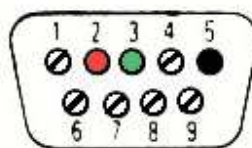
## Connector - signals



Bulgin AC Power Connector      D-Sub9 RS232      D-Sub15 Signal

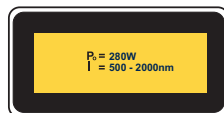
Pin	Configuration / D-Sub15 - female
1	External interlock signal In
2	internal - do not use
3	no connection
4	no connection
5	Laser on signal - Out (5V)
6	Laser on signal - GND
7	no connection
8	no connection
9	internal - do not use
10	External interlock signal Out (24V, 100µA max)
11	no connection
12	no connection
13	no connection
14	no connection
15	no connection

Accessory Female Power Connector from Bulgin Product No PX0430/SE



Pin	Configuration / D-Sub9 - female
1	no connection
2	RS 232 - RX
3	RS 232 - TX
4	no connection
5	GND
6	no connection

## User Safety



Important Note Read and carefully follow operating manual instructions. Especially, whenever power supply is switched on or off, always disconnect from laser module. See manual for details. Uncontrolled on / off switching may cause spikes and result in fatal device damage. This product is not certified by with IEC 60825-1 or 21CFR1040.10/ 21CFR1040.11 and must comply with the applicable regulations by the Purchaser if sold as laser product.

**We manufacture diode lasers.**