

# YLMO-930

## Femtosecond Fiber Laser for Microscopy and Life Sciences



Menlo Systems' fiber-based femtosecond laser sources integrate latest achievements in fiber technology into easy-to-use products. Menlo Systems' unique figure 9<sup>®</sup> mode locking technology results in reproducible and long-term stable operation. The YLMO series with its all-PM design guarantees excellent stability and low-noise operation. All lasers are maintenance free, user installed and ready to use at the press of a single button.

## MenloSystems

### KEY SPECIFICATIONS

- Wavelength 930 nm
- Output Power >1W
- Pulse Width <180 fs
- Repetition Rate 100 MHz
- Pulse Energy >10 nJ

### APPLICATIONS

- Optimized for 2-Photon fluorescence excitation of Green Fluorescent Protein GFP and its variants
- Perfect choice for applications in life sciences where reliability counts
- Engineered for OEM integration with 24/7 operation

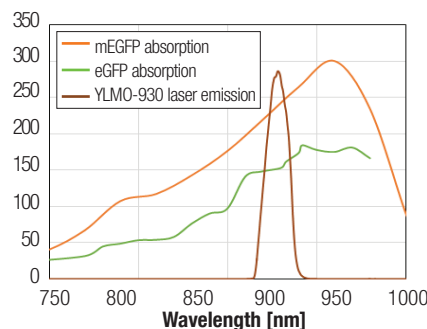
### FEATURES

- Compact : 10-50 times smaller than Ti:Sapphire lasers
- Laser Output in less than 60 seconds after turn-on
- Low Amplitude and Phase Noise
- Adjustable Chirp Control (-24000 ...0 fs<sup>2</sup>)
- Low Amplitude and Phase Noise
- Modulation Input (enable/disable): SMA Connector
- Radio Frequency Output for Trigger/Synchronization: SMA Connector
- Excellent Beam Quality (TEM 00, M<sup>2</sup><1.2), and Beam Stability
- Air Cooled - no Chiller
- Low Power Consumption
- Quality "Made in Germany"

### PERFORMANCE DATA

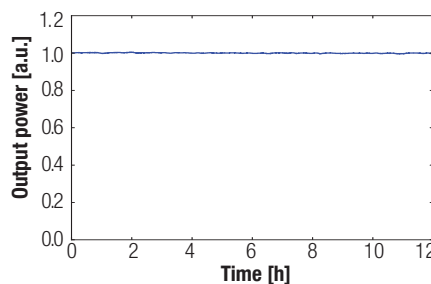
#### GFP excitation

Output spectrum of YLMO-930, center wavelength of 930 nm, bandwidth 15 nm



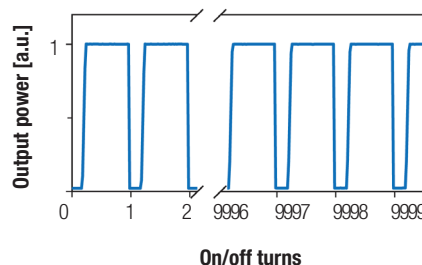
#### Amplitude noise

YLMO-930 Laser  
< 0.5% rms (over >12h in ambient temperature)



#### Reproducibility

Identical and consistent laser performance



### OPTIONS

- **POCKELS CELL**  
Fast Modulation
- **MULTIBRANCH Additional Output Port**  
>1,5 W @1030 nm
- **VARIO User-Defined Repetition Rate**  
Factory-set value selectable in the 50-100 MHz range

# YLMO-930



## Femtosecond Fiber Laser for Microscopy and Life Sciences

### SPECIFICATIONS

### YLMO-930

Center Wavelength	930 nm $\pm$ 10 nm
Average Power	>1 W
Pulse Energy	>10 nJ
Bandwidth	>10 nm
Pulse Width	<180 fs
Repetition Rate	100 MHz $\pm$ 1 MHz (factory set, fixed)*
Optical Output Port	freespace
Polarization	linear, (>50:1)
Beam Diameter	2 mm
Beam Height	56 mm**

\*Other repetition rates on request \*\*Beam height adjustable with standard posts

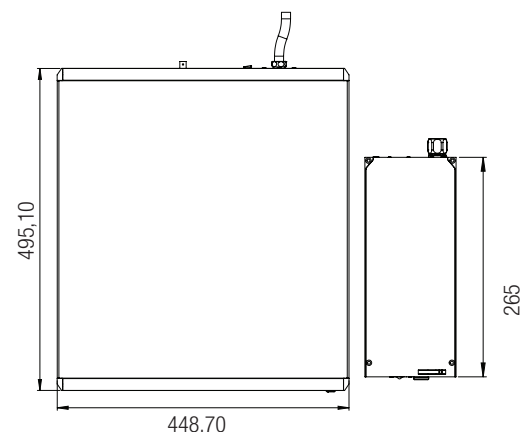
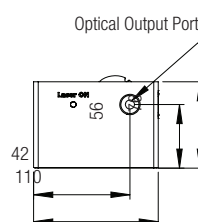
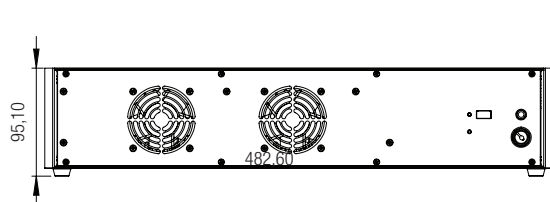
### REQUIREMENTS

Operating Voltage	110 / 230 V
Power Consumption	<200 W
Operating Temperature	15 °C - 30 °C
Laser Head Dimensions/Weight	265 x 110 x 76 mm <sup>3</sup> / <5 kg
Control Unit Dimensions/Weight	495 x 483 x 95 mm <sup>3</sup> / <25 kg
Warm-Up Time	<60 s

### OPTIONS

Pockels Cell (930 nm port)	
Head Dimensions	265 x 110 x 76 mm <sup>3</sup>
Beam Height	42 mm
Modulation Frequency	200 kHz
Response Time	1 $\mu$ sec
Extinction Ratio	>27 dB
Transmission	~95%
Multibranch (2nd additional port)	
Head Dimensions	265 x 110 x 76 mm <sup>3</sup>
Beam Height	56 mm
Wavelength	1030 nm $\pm$ 10 nm
Average Power	>1.5 W
Pulse Energy	>15 nJ
Pulse Width	<150 fs

### TECHNICAL DRAWING



Laser head and control unit interconnected by fixed 2m cable

### ORDERING INFORMATION

Product Code	YLMO-930
--------------	----------

Please call for pricing. Specifications are subject to change without notice. Custom modifications are available, please inquire.



Invisible laser radiation  
avoid exposure to beam  
Class 4 laser

**Menlo Systems GmbH**  
T+49 89 189 166 0  
sales@menlosystems.com

**Menlo Systems, Inc.**  
T+1 973 300 4490  
ussales@menlosystems.com

**Thorlabs, Inc.**  
T+1 973 579 7227  
sales@thorlabs.com

