FISBA Innovators in Photonics

FISBA READYBeam™
Compact powerful laser source

We make your multicolor laser for Life Sciences and Industrial Applications!

Your Benefits

- **Reduction of complexity:** Turnkey solution facilitates alignment, integration and operation of the laser.
- **Small footprint:** Replaces one or several bulky gas and solid state lasers with just one single compact module.
- **Swiss Quality and reliablility:** The modules are entirely manufactured under one-roof in Switzerland. FISBA covers the complete value chain of laser module assembly and quality control in-house.

Key Features

- Multicolor concept: 3 channels in one pre-aligned housing
- Turn key solution with standard RS 485 interface
- Singlemode fiber
- Software control
- Embedded TEC cooling
- Embedded electronics
- Individual control of each wavelength
- Digital, analog and mixed modulation modes

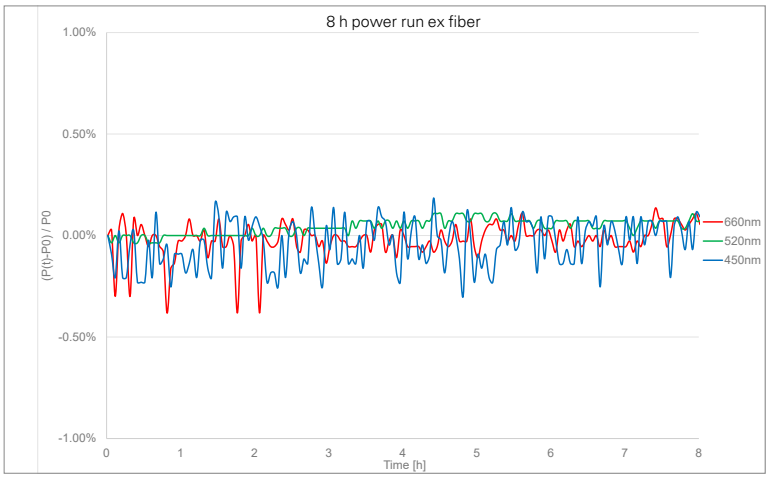
Applications

- Flow Cytometry
- Fluorescence Microscopy
- DNA Sequencing
- Microfluidics
- Projection
- Display & Holography

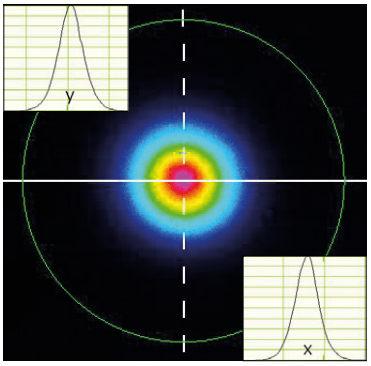
FISBA READYBeam™
Technical specifications

Power stability

The prealigned optomechanical architecture of the FISBA READYBeam™ in combination with its TEC regulation, results in a stable single mode fiber output over time.



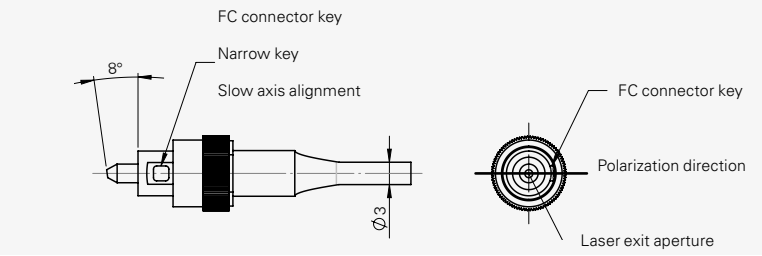
Beam quality



TEM00 single mode fiber beam profile

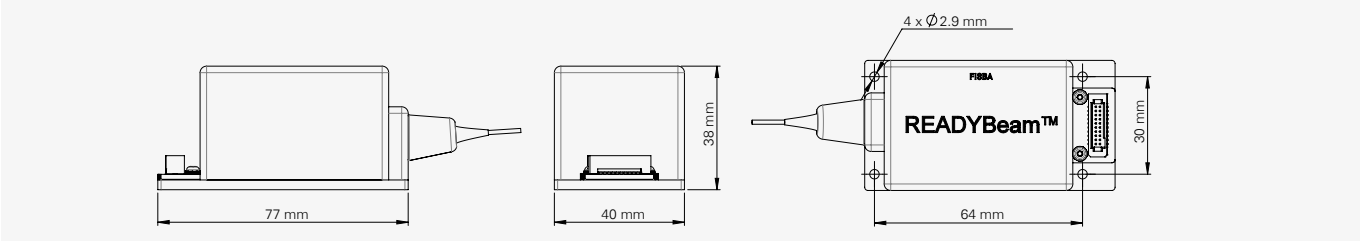
- Minimum dispersion
- Minimum attenuation
- Control about the polarization state
- Gaussian spot and illumination distribution

APC connector



Typical 10 dB improvement in return loss

Technical drawing



FISBA READYBeam™
Technical specifications

	Wavelength [1]					
	405 nm	450 nm	488 nm	520 nm	638 nm	660 nm
FISBA READYBeam™ bio 1 1006061	x		x		x	
FISBA READYBeam™ bio 2 1008062			x	x	x	
FISBA READYBeam™ ind 1 1006062		x		x		x
FISBA READYBeam™ ind 2 1007773		x		x	x	
Output power calibrated values [2]	40 mW	40 mW	30 mW	30 mW	40 mW	40 mW
Power stability 8 h	< 2%					
Fiber type	SM/PM, 3 µm core, end capped, APC Connector					
Fiber cable length	1 m					
Polarisation ratio [3]	typ.17 dB					
Spatial mode	TEM 00					
M2	< 1.1					
Optical noise RMS, 20Hz – 20MHz	typ. 0.2, max. 0.5 %					
Laser operation modes	CW, modulated					
Digital modulation	TTL input					
Digital modulation frequencies	1 MHz					
Digital rise time 10 – 90%	11 ns					
Digital fall time 90 – 10%	11 ns					
Analog modulation bandwidth	0 – 3.3 V input voltage					
Analog modulation frequencies	20 KHz					
Analog rise time 10 – 90%	12 µsec					
Analog fall time 90 – 10%	12 µsec					
Laser safety class	3B					
Max. storage temperature range	- 10° C to + 60° C					
Operational temperature range	+ 15° C to + 40° C					
Power consumption	typ. 5 W, max. 12 W					
Temperature stabilization	internal TEC controlled					
Communication interface	RS 485					

[1] Laser center wavelength tolerances: **405**: 400 – 410nm ; **450**: 440 – 460nm; **488**: 486 – 490nm; **520**: 515 – 530 nm; **638**: 632 – 643nm; **660**: 655 – 665nm
[2] linear calibrated power range from 10% to 100% (max)
[3] min.13dB, max. 26 dB

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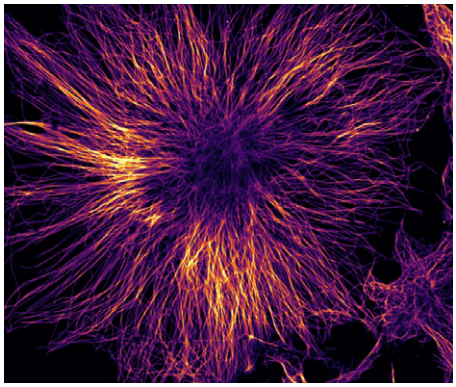
FISBA READYBeam™

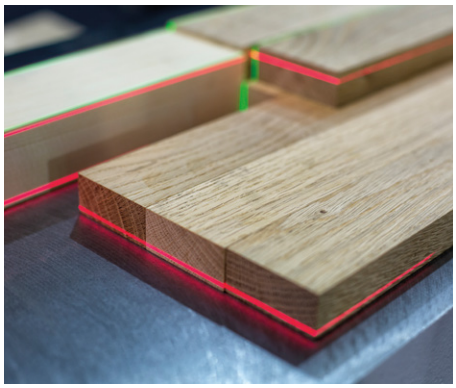
We make your laser!

Model numbers

FISBA READYBeam™ bio 1	1006061
FISBA READYBeam™ bio 2	1008062
FISBA READYBeam™ ind 1	1006062
FISBA READYBeam™ ind 2	1007773

Explore our compact multi-color laser modules
fisba.com/readybeam





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