FISBA Innovators in Photonics

FISBA READYBeam™ SPOT Family
Compact powerful laser source

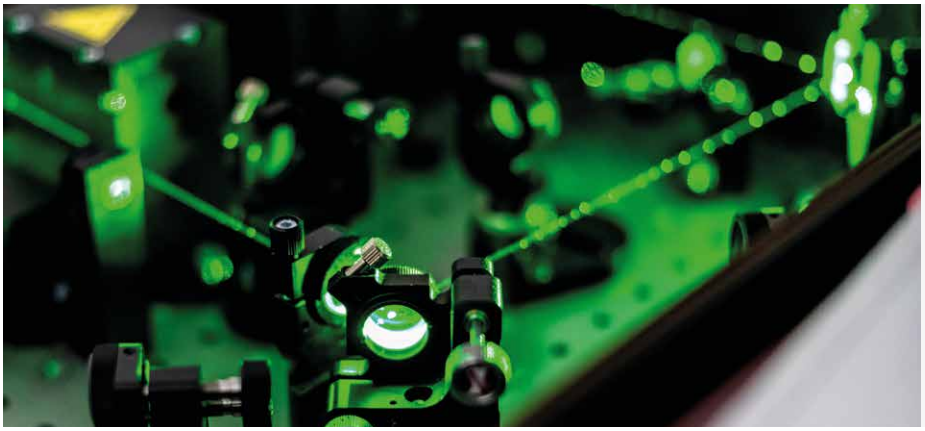
We make your one-color laser for Life Sciences and Industrial Applications!

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

- Individual laser line in pre-aligned housing
- Turn key solution with standard RS 485 interface
- Singlemode fiber or free space
- Software control
- Embedded TEC cooling
- Embedded electronics
- Control of the choosen wavelength
- Digital, analog and mixed modulation modes

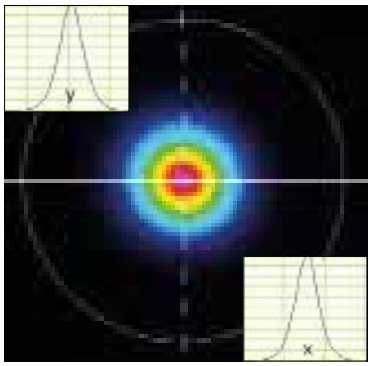


Applications

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

FISBA READYBeam™ SPOT Family
Technical specifications

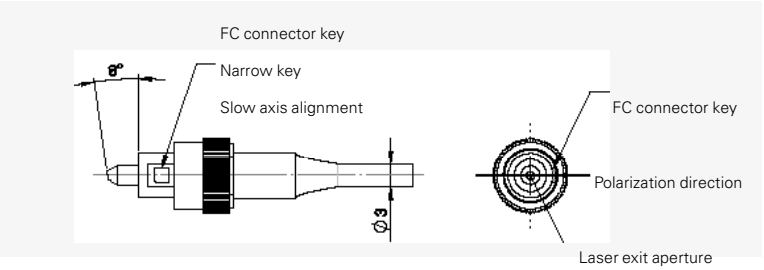
Beam quality



TEM00 single mode fiber beam profile

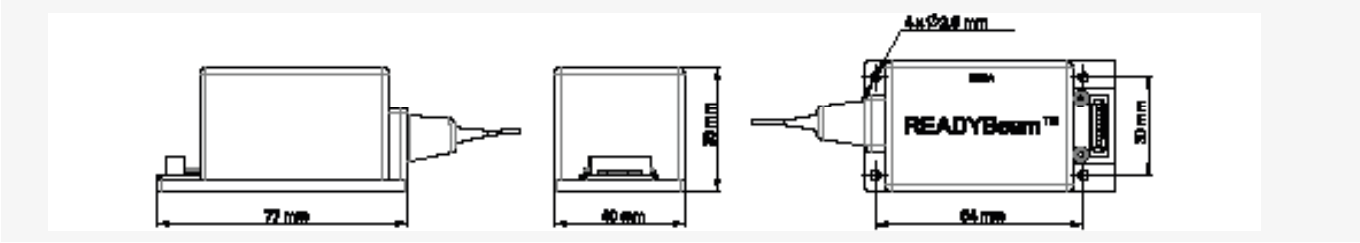
- Minimum dispersion
- Minimum attenuation
- Control about the polarization state
- Gaussian spot and illumination distribution

APC connector



Typical 10 dB improvement in return loss

Technical drawing



FISBA READYBeam™ SPOT Family
Technical specifications

	Wavelength [1]			
	405 nm	450 nm	520 nm	638 nm
FISBA READYBeam™ VIOLET SPOT	x			
FISBA READYBeam™ BLUE SPOT		x		
FISBA READYBeam™ GREEN SPOT			x	
FISBA READYBeam™ RED SPOT				x
Output power calibrated values [2]	40 mW	40 mW	30 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			

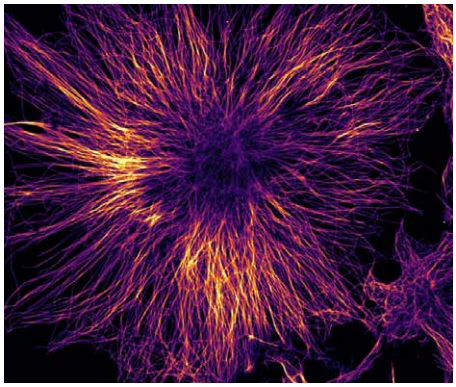
[1] Laser center wavelength tolerances: **405**: 400 – 410nm ; **450**: 440 – 460nm; **520**: 515 – 530 nm; **638**: 632 – 643nm
[2] linear calibrated power range from 10% to 100% (max)
[3] min.13dB, max. 26 dB

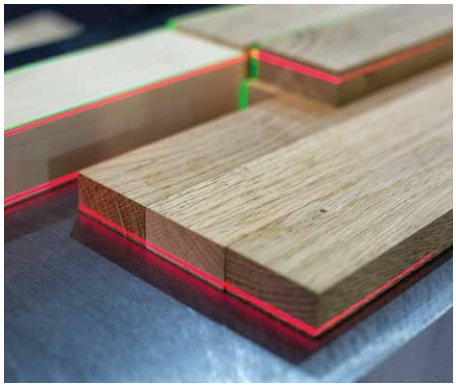
FISBA Innovators in Photonics

FISBA READYBeam™ SPOT Family

We make your laser!

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





CE

FISBA AG
9016 St.Gallen, Switzerland

FISBA Photonics GmbH
12489 Berlin, Germany

FISBA LLC
Tucson, AZ 85712, United States

FISBA (Shanghai) Co., Ltd.
Shanghai City, 200120 China

sales@fisba.com
www.fisba.com