FISBA Innovators in Photonics

FISBA READYSpot Family
Compact Powerful Laser Source

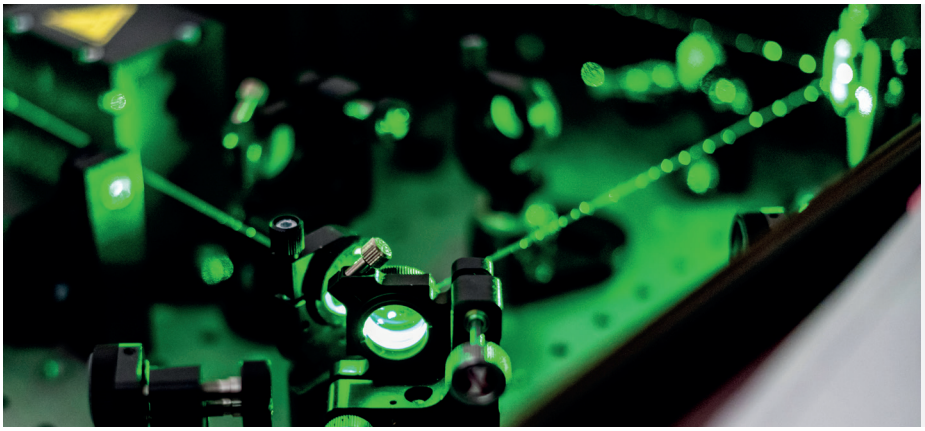
We produce your one-color laser for Life Sciences and Industrial Applications.

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 chosen wavelength
- Digital, analog and mixed modulation modes

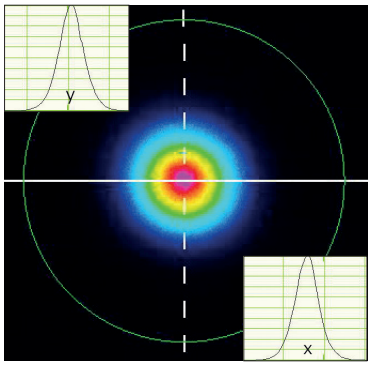


Applications

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

FISBA READYBeam™ SPOT Family
Technical Specifications

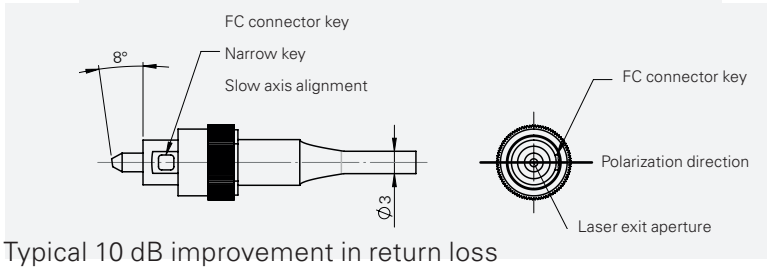
Beam Quality



TEM00 single mode fiber beam profile

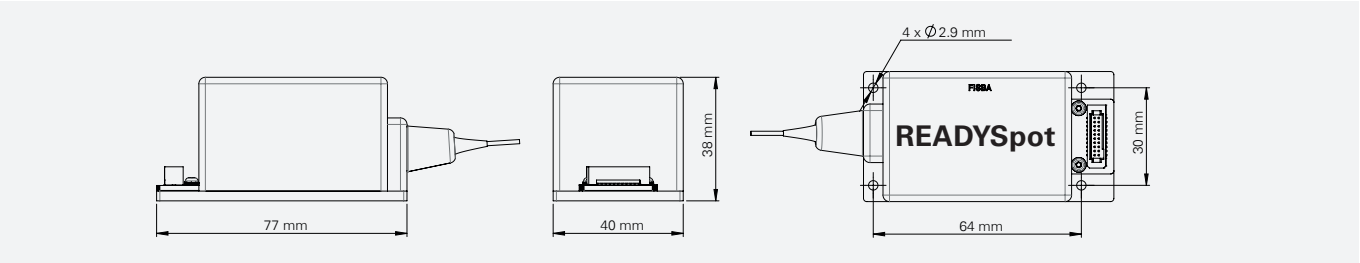
- Minimum dispersion
- Minimum attenuation
- Control over the polarization state
- Gaussian spot and illumination distribution

APC Connector



Typical 10 dB improvement in return loss

Technical Drawing



FISBA READYSpot Family
Technical Specifications

	Wavelength [1]				
	405 nm	450 nm	488 nm	520 nm	639 nm
FISBA READYSpot 405	x				
FISBA READYSpot 450		x			
FISBA READYSpot 488			x		
FISBA READYSpot 520				x	
FISBA READYSpot 638					x
Output power calibrated values [2]	Leistung 405 40-100mW	Leistung 450 40-100mW	Leistung 488 30-100mW	Leistung 520 30-60mW	Leistung 638 40-100mW
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**: 483 – 493 nm; **520**: 515 – 530 nm; **638**: 632 – 643nm
[2] linear calibrated power range from 10% to 100% (max)
[3] min.13dB, max. 26 dB

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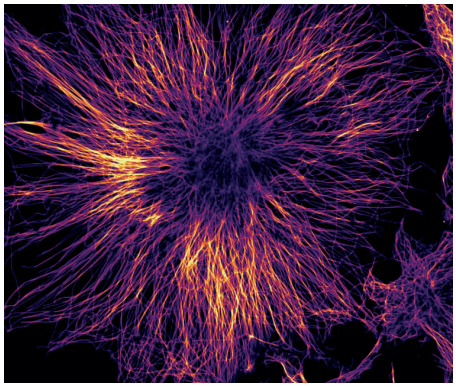
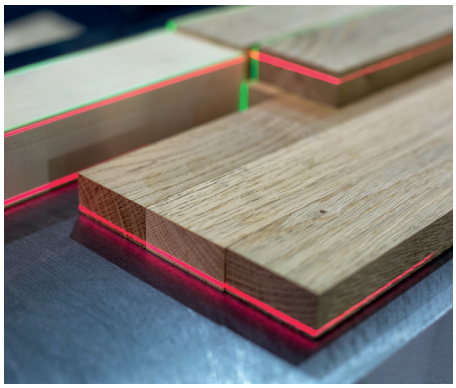
Explore also our compact multi-color laser modules
fisba.com/readybeam





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