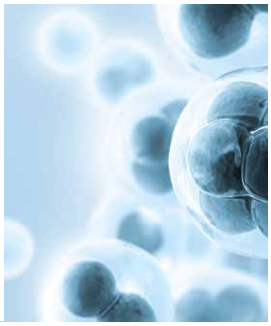
FISBA Innovators in Photonics

FISBA READYBeam™
Compact multi-color laser source

The FISBA READYBeam™ is the answer to customers increasing demand for compact, powerful and reliable multi-color laser sources which easily integrate into existing set ups. The module is available in three primary configurations: READYBeam™ bio, READYBeam™ ind 1 and ind 2.

Areas of applications

- Flow Cytometry
- Fluorescence Microscopy
- Display Technology
- Cell Screening & Sorting
- Analytical Instrumentation
- Projection

Advantages

The development of diode emitters towards increasing power and variety, facilitated their usage in a rapidly growing field of scientific and industrial applications. The replacement of one or several bulky gas and solid state lasers with just a single compact module reduces complexity of:

- **Alignment**
- **Integration**
- **Operation**

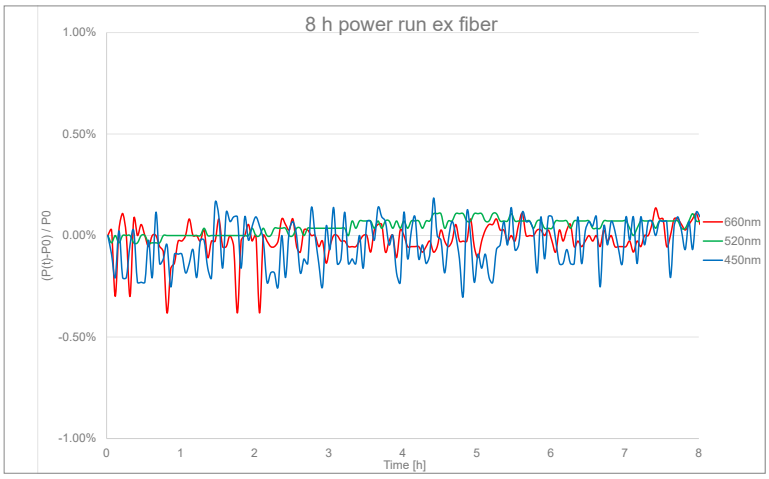
Key features

- Turn key solution with standard RS 485 interface
- Embedded electronics and driver
- Embedded thermoelectric regulation (TEC)
- Fiber coupled, prealigned collinear emission
- Single mode, polarization maintaining
- Individual control of each color
- Complete dark state in fluorescence applications
- Digital, analoge and mixed mode modulation capabilities
- Software included

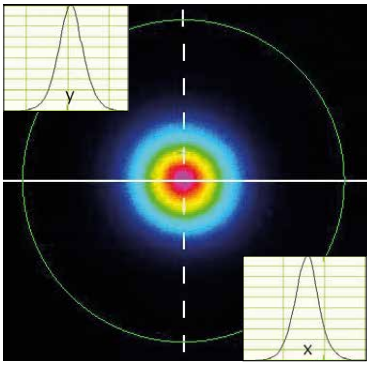
FISBA READYBeam™
Technical specifications

Laser 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.



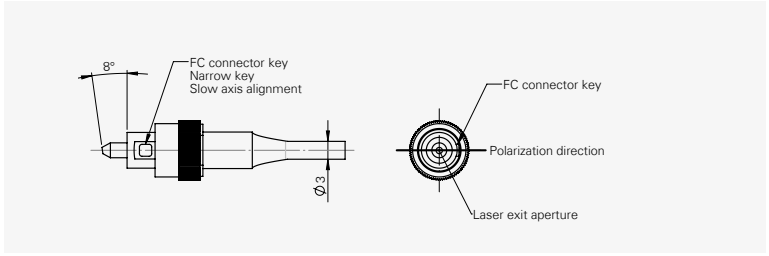
Beam quality



TEM00 single mode fiber beam profile

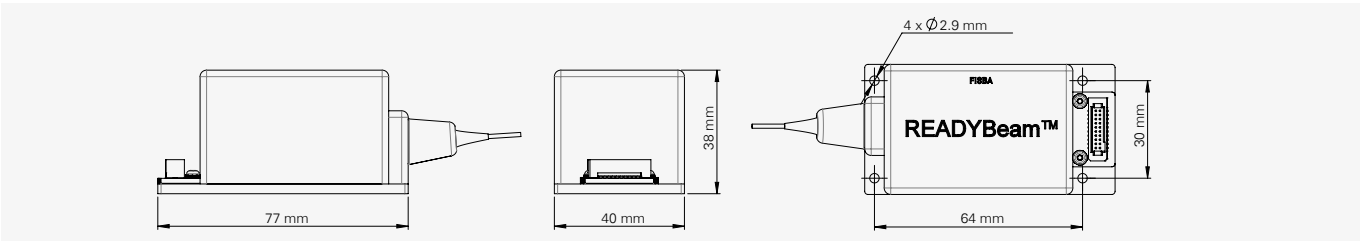
· Minimum dispersion
· Minimum attenuation
· Control about the polarization state
· Gaussian spot and illumination distribution

APC connector



Typical 10 dB improvement in return loss

Technical drawing



FISBA READYBeam™
Technical specifications

Module	bio			ind			
						ind 1	ind 2
Wavelength	405 nm	488 nm	638 nm	450 nm	520 nm	660 nm	638 nm
Output power calibrated values	40 mW	30 mW	40 mW	40 mW	30 mW	40 mW	
Power stability 8 h	< 2%						
Fiber type	SM/PM, 3 µm core, end capped						
Fiber cable length	1 m						
Polarisation ratio	min. 12 dB, typ.16 dB, max. 26 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						

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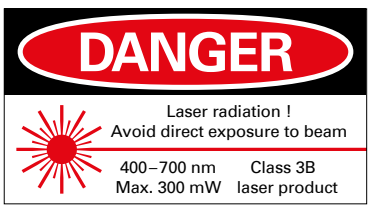
FISBA READYBeam™
READY for the future

Model numbers

FISBA READY Beam™ bio	1006061
FISBA READY Beam™ ind 1	1006062
FISBA READY Beam™ ind 2	1007773

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



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