

FISBA READYFlow

Stable, Uniform, Reliable

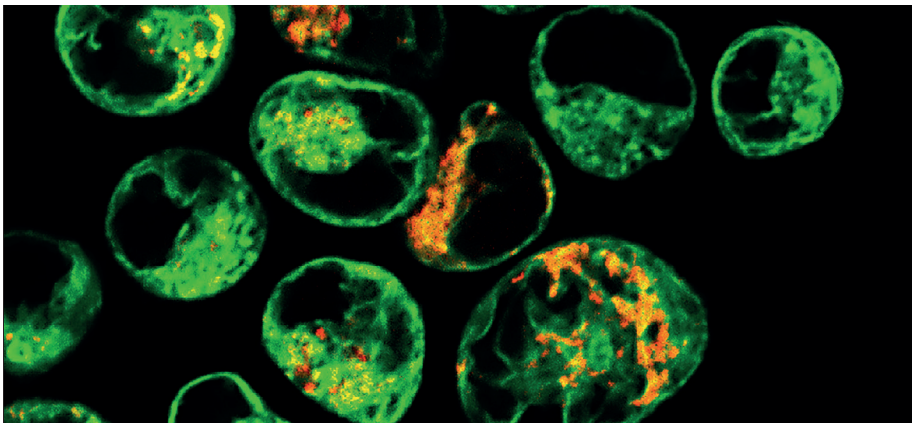
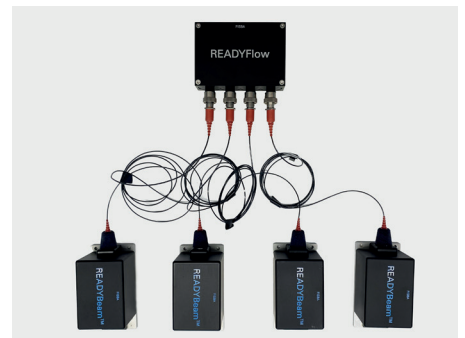
Simplified Laser Alignment in Flow Cytometers

Your Benefits

- **Reduction of complexity:** Turnkey solution facilitates alignment, integration, and operation of the laser.
- **Stability and uniformity:** Consistent excitation across the interrogation area, boosting accuracy and repeatability.
- **Easy to use:** Simple “one-box” adjustment in front of the flow cell. One compact box for all wavelengths.
- **Easy to maintain:** No realignment necessary after initial installation.
- **Swiss quality and reliability:** The module is entirely manufactured under one roof in Switzerland. FISBA covers the complete value chain of laser module assembly and quality control in-house.

Key Features

- Multi micro Top-Hat projection in one box
- Up to 6 wavelengths and multiple combinations possible
- Stable Top-Hat in stacked arrangement
- Line dimension from $5 \times 90 \mu\text{m}^2$ to $10 \times 180 \mu\text{m}^2$
- Minimum working distance 25 mm
- Minimal adjustment; line stacking customizable
- Ideally paired with FISBAReadySpot laser modules



Flow Cytometry

Proper illumination of the cells inside the flow chamber is a challenging task. Laser parameters must meet stringent specifications to produce clean, reliable signals for data analysis.

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Technical Specifications

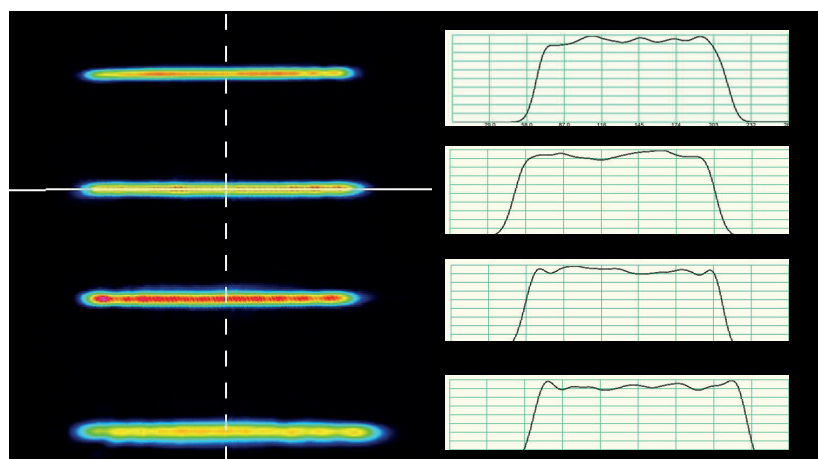
Core component: FISBA Beam Shaping Lens



Conversion of the normal Gaussian laser beam from the fiber into a Top-Hat beam.

The optical system projects the Top-Hat micro line onto the image plane.

Top-Hat Beam Illumination



Prototype READYFlow1:

- 4 wavelength 405/488/520/638nm
- Stacking 75um
- Line width:
 - 405: 7.5um
 - 488: 8.9um
 - 520: 9.3um
 - 638: 12.8um
- Line length 160um
- Working distance 40mm
- Irradiance variation along the line 3-5 % (CV)

Working distance [nm]	Line width 1/e2 [um]	Line width 1/e2 [um]	Stacking distance
25	4 – 7	90	Costumer specific
36	7 – 11	130	Costumer specific
50	9 – 15	180	Costumer specific

Prototype READYFlow1 delivers stable, narrow laser lines with minimal irradiance variation, enabling consistent excitation across wavelengths—ideal for precise, reproducible flow cytometry measurements at 40 mm distance.

Technical Drawing

