

FISBA Laser Optics

variable beam expander



FISBA offers full design and manufacturing of high precision variable beam expanders and laser optics, customized to exact customer requirements.

Technical Data

- Continuous adjustable magnification 0.75x – 4x
- Beam stability, no rotating lenses
- Large input beam diameter
- Red pilot laser applicable
- Low wavefront error
- No ghosting

FISBA Capabilities

- OEM approach for fixed and variable beam expanders
- In-house optics design and coating capabilities for high LIDT quality manufacturing capabilities
- Customized wavelengths available

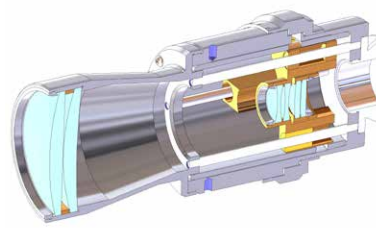
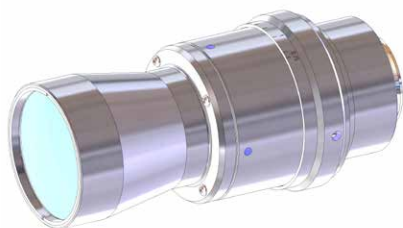
Your Benefits

- Customized design for high performance
- Robust and reliable mechanics
- Full service from design to manufacturing
- Fixed housing length

Industries & Applications

- Laser industry

Technical Specifications Variable Beam Expander



Parameters	Standard values
Design type	Galilean, no internal focus
Housing length	150 mm
Diameter	69 mm
Mounting flange	conical
Weight	0.605 kg
Clear input aperture	12 mm
Max. entrance beam diameter (1/e ²)	6 mm
Magnification	0.75x – 4.0x
Pointing stability [mrad]	1'
Total transmission*	98%
Design wavelength	1064 nm
Applicable wavelength range	1030 – 1090 nm
Wavelength range for pilot laser	approx. 633 nm
Damage threshold	10 J/cm ² ; 1064 nm; 5ns
Wavefront error (for clear input aperture)	0.08 λ RMS

* according to wavelength 1064 nm
Customized designs available upon request