

**II-VI**

# Beam Expanders

## PRODUCT OVERVIEW

For many laser based applications, beam expanders are critical components within an optical system. Their primary function is to expand the diameter of a collimated laser beam and decrease beam divergence. In some cases, they are also used to reduce the beam diameter to ultimately create a smaller focused spot size. Designs are based on the fundamental principles of the Galilean telescope. All assembly is performed inside an ultra-clean environment, with optimized coating, suitable for high power laser irradiation.

# Beam Expanders

## Features

- Available from 266nm to 1080nm
- Fixed and variable magnification
- Low coating absorption and low thermal shift
- In-house control of critical manufacturing processes from design to prototype and mass production

## Applications

- Microelectronic (drilling, marking and labeling)
- Semiconductor industry (marking, engraving, drilling)
- Automotive industry (welding, cutting, drilling)
- Medical device (marking, engraving, drilling)

## Benefits

- Robust and compact
- Customized configurations availability and flexibility
- Comprehensive testing technique

## Specifications

Item	BEX-355-2	BEX-355-3	BEX-355-5	BEX-355-6	BEX-1064&532-10
Wavelength (nm)	355	355	355	355	1064&532
Expansion ratio (times)	2	3	5	6	10
Input clear aperture (mm)	8	8	7.5	7	4
Optimized input beam $\Phi 1/e^2$ (mm)	6	6	5.5	5	1.1
Output clear aperture (mm)	27	27	30	35	12.4
TWF*	D.L.	D.L.	D.L.	D.L.	D.L.
Lens Material	FS	FS	FS	FS	FS
Length (mm)	75	75	75	75	85
Mounting thread	M30x1	M30x1	M30x1	M30x1	M22x0.75

Different Specifications is available upon request

\* D.L. is diffraction limit by design.