

High Power Laser Beam Expander | BEHP

RoHS

Catalog Code W3200

Application Systems

Optics & Optical Coatings

Opto-Mechanics

Bases

Manual Stages

Actuators & Adjusters

Motorized Stages

Light Sources & Laser Safety

Index

Guide

Mirrors

Beamsplitters

Polarizers

Lenses

Multi-Element Optics

Filters

Prisms

Substrates/Windows

Optical Data

Maintenance

Selection Guide

Achromats

Focusing Lenses

f θ Lenses

Objectives

Expanders

Others

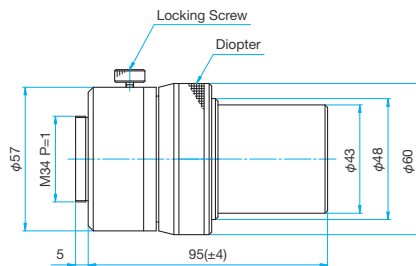
These laser beam expanders are designed for use with a high-power laser. Fine adjustment of the collimator is available with the diopter correction function. The lens design takes into account the wavefront aberration, so it can be used in an optical system with high precision, such as a laser interferometer or laser processing.

- The optical system of the beam expander utilizes an air gap configuration that does not use an adhesive bonding of lens.
- By turning the diopter ring that is attached to the center of the beam expander, you can make variable beams such as a focused beam, collimated beam, and a divergent beam. It is used when you want to vary the position of the beam waist and where precision collimation adjustment is necessary.



Outline Drawing

(in mm)



Specifications

Lens Material	Synthetic fused silica
Configuration of lens	2 group 4plates Galilean
Acceptance range of incident angle	$\pm 1^\circ$
Coating	Antireflection coating (Design wavelength: 633nm)
A range of the length of lens barrel	± 5 mm

Guide

- We also can provide a holder for our laser beam expander (KLH-BE) for the fine adjustment with tilt angle and to secure the beam expander. [WEB Reference](#) [Catalog Code](#) W4147
- It is also available to provide beam expander of wavelength other than products on-line and in our catalog and achromatic in two wavelengths or more.

Attention

- It is not possible to create a collimated light obtained by reducing the beam diameter using in the opposite direction a beam expander. In this case, please use the appropriate optical system by determining the position of the beam waist and divergence angle of the laser beam.

Specifications

Part Number	Design wavelength [nm]	Beam magnification	Input Clear aperture [mm]	Laser Damage Threshold* [J/cm ²]
BEHP-3-266	266	3	$\phi 10$	2
BEHP-5-266	266	5	$\phi 6$	2
BEHP-10-266	266	10	$\phi 3$	2
BEHP-3-355	355	3	$\phi 10$	4
BEHP-5-355	355	5	$\phi 6$	4
BEHP-10-355	355	10	$\phi 3$	4
BEHP-3-532	532	3	$\phi 10$	5
BEHP-5-532	532	5	$\phi 6$	5
BEHP-10-532	532	10	$\phi 3$	5
BEHP-3-1064	1064	3	$\phi 10$	7
BEHP-5-1064	1064	5	$\phi 6$	7
BEHP-10-1064	1064	10	$\phi 3$	7

Primary material: Aluminum

Finish: Black Anodized

* Laser pulse width 10ns, repetition frequency 20Hz

Compatible Optic Mounts

KLH-BE-M34H