TECHSPEC® 10X, 1064nm Vega® Nd:YAG Laser Line Beam Expander

10X, 1064nm DA Beam Expander, #35-117

Stock **#35-117** **2 In Stock**

- 1 + **C$755**.37

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Volume Pricing	
Qty 1-9	**C$755.37** each
Qty 10-24	**C$663.81** each
Qty 25-99	**C$587.51** each
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SPECIFICATIONS

General

Type: Beam Expander

Style:

Fixed Magnification

Physical & Mechanical Properties

Length (mm):
85.00

Weight (g):
176

Housing Diameter (mm):
39.95

Optical Properties

Angle of Incidence (°):
0

Coating:
Laser V-Coat (1064nm)

Design Wavelength DWL (nm):
1064

Entrance Aperture (mm):
5.45

Exit Aperture (mm):
26

Expansion Power:
10X

Substrate:
Fused Silica (Corning 7980)

Transmission (%):
>98.5 (nominal)

Transmitted Wavefront, P-V:
<λ/10 for 2.3mm input beam (nominal, λ = DWL)

Coating Specification:
R_{abs} <0.25% @ 1064nm

Wavelength Range (nm):
1000 - 1140

Damage Threshold, By Design:
10 J/cm^2 @ 1064nm, 10ns, 20Hz

Divergence Adjustment:
Rotating Optics

Damage Threshold, Pulsed:
10 J/cm^2 @ 1064nm, 10ns, 20Hz

Threading & Mounting

Mounting Threads:
Input: Male M30 x 1
Output: Female M34 x 0.5 (not intended for use)

Regulatory Compliance

Certificate of Conformance:
View

PRODUCT DETAILS

- AR Coated for Laser Wavelengths: 266nm, 355nm, 405nm, 532nm, 1064nm, and 1940nm
- Fixed Magnifications Available from 1.5X to 20X
- Divergence Adjustable through Rotating Optical Design

TECHSPEC® Vega® Laser Line Beam Expanders are designed for demanding laser applications including laser materials processing, medical, and research. These compact beam expanders are optimized at common laser wavelengths, including Nd:YAG wavelengths, for high performance transmitted wavefront, with designs achieving λ/10 transmitted wavefront error. To ensure compatibility with high power lasers, these beam expanders are designed to prevent ghost images from focusing on internal surfaces. TECHSPEC Vega Laser Line Beam Expanders easily mount with M30 x 1 threading and provide excellent value both for single unit purchases as well as volume integration.

Note: The length of these beam expanders will change upon divergence adjustment, typically by 1 to 2mm from the specified length.

TECHSPEC® Vega® Broadband Beam Expanders are also available. For more cost sensitive applications, Edmund Optics also offers **TECHSPEC Scorpii® Nd:YAG Beam Expanders**. For HeNe laser applications, **TECHSPEC Arcturus® HeNe Beam Expanders** are available. For higher precision applications where sliding optics are necessary, please see our **TECHSPEC Draconis® Nd:YAG Laser Line Beam Expanders** or **TECHSPEC Draconis® Broadband Beam Expanders**. For broadband or ultrafast applications, **TECHSPEC Canopus® Reflective Beam Expanders** are available.

To learn more about the difference between the 2µm and 2µm low OH^- content beam expanders, along with the different types of fused silica, review our **UV vs. IR Grade Fused Silica application note**.

532nm versions are compatible with popular 515nm laser applications, and 1064nm versions are ideal for use with laser applications at 1030nm, 1070nm, and 1080nm.

CUSTOM

Edmund Optics offers comprehensive custom manufacturing services for optical and imaging components tailored to your specific application requirements. Whether in the prototyping phase or preparing for full-scale production, we provide flexible solutions to meet your needs. Our experienced engineers are here to assist—from concept to completion.

Our capabilities include:

- Custom dimensions, materials, coatings, and more
- High-precision surface quality and flatness
- Tight tolerances and complex geometries
- Scalable production—from prototype to volume

Learn more about our **custom manufacturing capabilities** or submit an inquiry **here.**