TECHSPEC® 3X, 1064nm Vega® Nd:YAG Laser Line Beam Expander

3X, 1064nm DA Beam Expander, #35-09

Stock #35-099 7 In Stock

- 1 +

C$571.20

ADD TO CART

Volume Pricing	
Qty 1-9	C$571.20 each
Qty 10-24	C$508.20 each
Qty 25-99	C$453.60 each
Need More?	Request Quote

Product Downloads

- STEP:step
- Curve:pdf
- PDF Drawing:pdf
- IGES:igs
- Spec Sheets:pdf
- eDrawing:eprt
- EO Spec Sheet
- Download All

General

Type:	Beam Expander	**Style:**	Fixed Magnification

Physical & Mechanical Properties

Length (mm):	80.90	**Weight (g):**	76
Housing Diameter (mm):	29.95		

Optical Properties

Entrance Aperture (mm):	8	**Exit Aperture (mm):**	23
Expansion Power:	3X	**Substrate:** ⓘ	Fused Silica (Corning 7980)
Transmission (%):	>99 (nominal)	**Angle of Incidence (°):**	0
Coating:	Laser V-Coat (1064nm)	**Design Wavelength DWL (nm):**	1064
Transmitted Wavefront, P-V:	<λ/10 for 4mm input beam (nominal, λ = DWL)	**Wavelength Range (nm):**	1000 - 1140
Coating Specification:	R_{abs} <0.25% @ 1064nm	**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		

Regulatory Compliance

Certificate of Conformance:	**View**

Need different specs or modifications?

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.**

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.

Accessories

Note: Compatible accessories for individual stock numbers may vary. If unsure about which accessories work with your products, please contact us **here**.

	Title	Compare	Stock Number	Price	Buy
MORE+	M27 x 1.0 to M30 x 1.0 Adapter		#14-666	C$70.00 Volume Pricing | Request Quote	7 In Stock 1
MORE+	C-Mount Male to M30 x 1.0 Female Step-Up Adapter		#35-474	C$68.95 Volume Pricing | Request Quote	11 In Stock 1
MORE+	M24 x 0.5 Male to M30 x 1.0 Female Step-Up Adapter		#35-475	C$68.95 Volume Pricing | Request Quote	20+ In Stock 1
MORE+	M22 x 0.75 Male to M30 x 1.0 Female Step-Up Adapter		#35-476	C$68.95 Volume Pricing | Request Quote	2 In Stock 1

	Title	Compare	Stock Number	Price	Buy
MORE+	M16 x 0.75 Male to M30 x 1.0 Female Step-Up Adapter		#35-477	C$68.95 Volume Pricing | Request Quote	5 In Stock 1
MORE+	SM1 Male to M30 x 1.0 Female Step-Up Adapter		#35-478	C$68.95 Volume Pricing | Request Quote	14 In Stock 1

Related Products

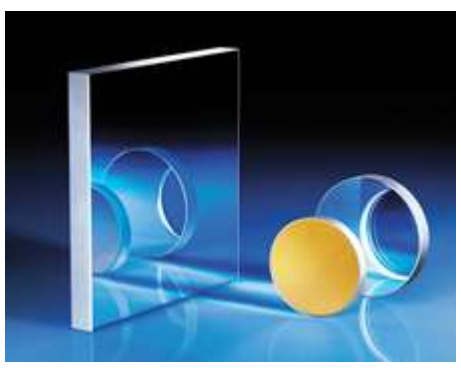
#35-103 - 5X, 1064nm Vega® Nd:YAG Laser Line Beam Expander
C$749.00
Qty

#35-095 - 2X, 1064nm Vega® Nd:YAG Laser Line Beam Expander
C$571.20
Qty

#39-737 - 3X, VIS-NIR Vega® Broadband Beam Expander
C$676.20
Qty

#39-743 - 3X, NIR Vega® Broadband Beam Expander
C$676.20
Qty

Frequently Purchased Together



#43-792 - 25 x 25mm Enhanced Aluminum, 4-6λ Mirror
C$43.40
Qty

#45-987 - 25mm Dia. 1064nm 45°, Nd:YAG Laser Line Mirror
C$243.60
Qty

#03-668 - 2.0 - 35.0mm Optic Dia., Three-Screw Adjustable Ring Mount
C$88.20
Qty

#32-917 - 25mm Dia. x 200mm FL, MgF_2 Coated, Achromatic Doublet Lens
C$170.80
Qty

Resources

Media Type

- Application Note
- Technical Tool
- Video
- Published Article
- FAQ
- Glossary
- Scientific Paper

APPLICATION NOTE
Anti-Reflection (AR) Coatings

TECHNICAL TOOL
Gaussian Beams Calculator

APPLICATION NOTE
Gaussian Beam Propagation

APPLICATION NOTE

Advantages of Using Beam Expanders

APPLICATION NOTE

Rotating vs. Sliding Beam Expander Divergence...

APPLICATION NOTE

The Unintuitive Balancing Act of Beam Expander...

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