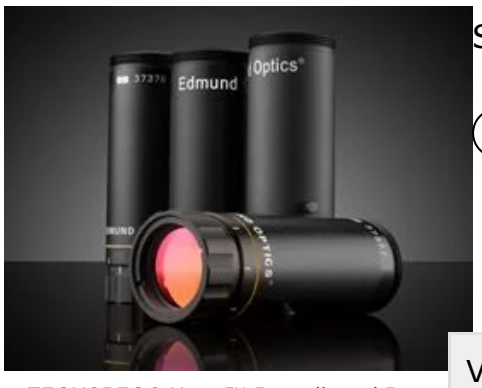
TECHSPEC® 7X, NIR Vega® Broadband Beam Expander



TECHSPEC® Vega™ Broadband Beam Expanders

Stock #39-745 2 In Stock

- 1 +

£488.00

ADD TO CART

Volume Pricing	
Qty 1-9	£488.00 each
Qty 10-24	£436.00 each
Qty 25-99	£386.40 each
Need More?	Request Quote

Prices shown are exclusive of VAT/local taxes

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):	92.16	**Weight (g):**	169
Housing Diameter (mm):	39.95		

Optical Properties

Entrance Aperture (mm):	7.1	**Exit Aperture (mm):**	25.5
Expansion Power:	7X	**Substrate:** ⓘ	Fused Silica (Corning 7980)
Transmission (%):	>95.8 (nominal)	**Angle of Incidence (°):**	0
Coating:	Laser NIR (1030-1550nm)	**Design Wavelength DWL (nm):**	Broadband
Transmitted Wavefront, P-V:	λ/10 for 3.6mm input beam (nominal, λ = DWL)	**Wavelength Range (nm):**	1030 - 1550
Coating Specification:	R_{avg} ≤0.7% @ 1030 - 1550nm @ 0° AOI	**Damage Threshold, By Design:** ⓘ	2 J/cm^2 @ 1064nm, 20ns, 20Hz
Divergence Adjustment:	Rotating Optics	**Damage Threshold, Pulsed:**	2 J/cm^2 @ 1064nm, 20ns, 20Hz

Threading & Mounting

Mounting Threads:	Input: Male M30 x 1

Regulatory Compliance

RoHS 2015:	**Compliant**	**Certificate of Conformance:**	**View**
Reach 250:	**Compliant**		

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 Broadband Tunable Laser Sources
- Fixed Magnifications Available from 1.5X to 20X
- Divergence Adjustable through Rotating Optical Design

TECHSPEC® Vega® Broadband Beam Expanders are designed for demanding tunable laser sources. These compact beam expanders are optimized at a wide range of wavelengths, with designs achieving λ/10 transmitted wavefront error and no internally focusing ghost images for compatibility with high power lasers. TECHSPEC Vega Broadband Beam Expanders are easily integrated into prototype and advanced applications while maintaining quality across the adjustment range. They are ideal for medical laser applications employing Thulium and Holmium sources.

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

TECHSPEC Vega® Laser Line 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**.

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+	C-Mount Male to M30 x 1.0 Female Step-Up Adapter		#35-474	£39.40 Volume Pricing | Request Quote	10 In Stock 1
MORE+	M27 x 1.0 to M30 x 1.0 Adapter		#14-666	£40.00 Volume Pricing | Request Quote	5 In Stock 1
MORE+	M24 x 0.5 Male to M30 x 1.0 Female Step-Up Adapter		#35-475	£39.40 Volume Pricing | Request Quote	20+ In Stock 1

	Title	Compare	Stock Number	Price	Buy
MORE+	M22 x 0.75 Male to M30 x 1.0 Female Step-Up Adapter		#35-476	£39.40 Volume Pricing | Request Quote	CONTACT US 1
MORE+	M16 x 0.75 Male to M30 x 1.0 Female Step-Up Adapter		#35-477	£39.40 Volume Pricing | Request Quote	CONTACT US 1
MORE+	SM1 Male to M30 x 1.0 Female Step-Up Adapter		#35-478	£39.40 Volume Pricing | Request Quote	10 In Stock 1

Related Products

#39-746 - 10X, NIR Vega® Broadband Beam Expander
£488.00
Qty

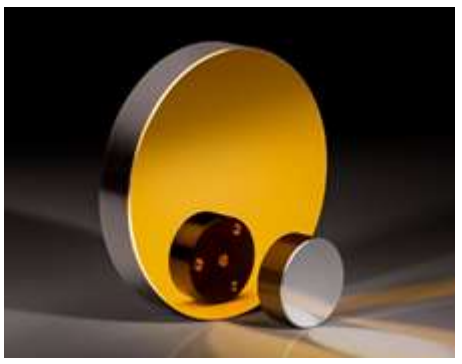
#39-744 - 5X, NIR Vega® Broadband Beam Expander
£488.00
Qty

#35-113 - 7X, 1064nm Vega® Nd:YAG Laser Line Beam Expander
£428.00
Qty

#35-474 - C-Mount Male to M30 x 1.0 Female Step-Up Adapter
£39.40
Qty

Frequently Purchased Together

#36-605 - 9.5 - 73.0mm Optic Dia., Three-Screw Adjustable Ring Mount
£66.40
Qty

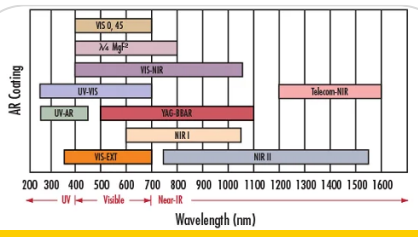


#47-115 - 38.1mm Dia., Aluminum Coated, Aluminum Substrate Mirror
£190.40
Qty

Resources

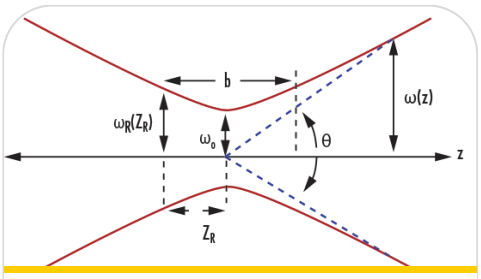
Media Type

- Application Note
- Technical Tool
- Video
- Published Article
- FAQ



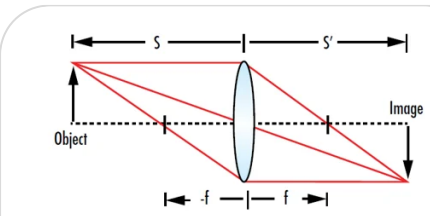
APPLICATION NOTE

Anti-Reflection (AR) Coatings



TECHNICAL TOOL

Gaussian Beams Calculator

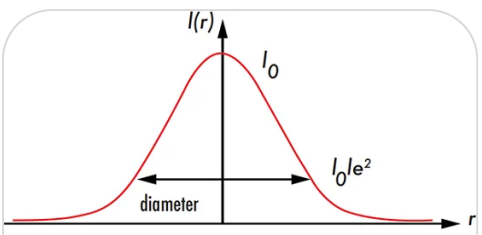


APPLICATION NOTE

Gaussian Beam Propagation

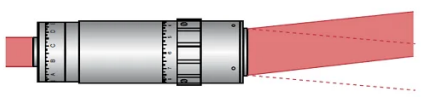
Glossary

Scientific Paper



APPLICATION NOTE

Advantages of Using Beam Expanders



APPLICATION NOTE

Rotating vs. Sliding Beam Expander Divergence...

APPLICATION NOTE

The Unintuitive Balancing Act of Beam Expander...

View More

;