

TECHSPEC[®] 355nm 2X - 8X Gemma[®] Variable Beam Expander



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€1.745^{,85}

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Volume Pricing	
Qty 1-4	€1.745,85 each
Qty 5-24	€1.545,00 each
Qty 25-99	€1.359,60 each
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 Prices shown are exclusive of VAT/local taxes

Product Downloads

SPECIFICATIONS

General

Beam Expander

Type:

Continuous Variable Magnification		Style:
Physical & Mechanical Properties		
162.89	Length (mm):	
508	Weight (g):	
48	Housing Diameter (mm):	
< 1	Pointing Accuracy (mrad):	
Optical Properties		
Laser V-Coat (355nm)	Coating:	
355	Design Wavelength DWL (nm):	
10	Entrance Aperture (mm):	
35	Exit Aperture (mm):	
2X - 8X	Expansion Power:	
Fused Silica (Corning 7980)	Substrate: ☐	
> 97.5 @ DWL	Transmission (%):	
Transmitted Wavefront, P-V: < λ /4 for Input Beam 3mm (2X-6X) < λ /4 for Input Beam 2.5mm (2X-8X)		
Rabs < 0.25% @ 355nm	Coating Specification:	
355	Wavelength Range (nm):	
7.5 J/cm² @ 20ns , 20 Hz @ 355 nm	Damage Threshold, By Design: ☐	
Non-Rotating Optics	Divergence Adjustment:	
Threading & Mounting		
Input: Male M30 x 1.0 Output: Female M42 x 0.5	Mounting Threads:	
Regulatory Compliance		
View	Certificate of Conformance:	

PRODUCT DETAILS

- 2X– 8X Continuous Magnification
 - Non-Rotating Lenses Minimize Beam Wander
 - Compact Galilean Designs with Fixed Housing Length
 - [TECHSPEC® Draconis® Broadband Beam Expanders](#) Also Available
- TECHSPEC® Gemma® Variable Beam Expanders are ideal for high power laser applications where magnification changes may be required, such as prototyping or R&D. TECHSPEC Variable Beam Expanders feature λ /4 transmitted wavefront, Galilean designs, and high laser damage threshold AR coatings to ensure maximum transmittance while minimizing ghost reflections. Additionally, these beam expanders use internal translation and focusing mechanisms to continuously adjust magnification and laser divergence without affecting overall housing length. TECHSPEC® Gemma® Variable Beam Expander allow for continuous magnification change over the full magnification range.
- TECHSPEC® Gemma® Variable Beam Expanders can be used to determine a system's required beam magnification in the prototyping phase of development. [TECHSPEC® Draconis® Broadband Beam Expanders](#) are available for production or OEM implementation. Please contact our Sales Department for custom magnification requirements.

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](#).