

# TECHSPEC® UV-VIS VEGA™ BROADBAND BEAM EXPANDERS 1030-1550nm • 5X #39-744

- Broadband Designs for Tunable Lasers
- $\lambda/10$  Transmitted Wavefront Error
- Divergence Adjustment to Compensate for Input Beam Divergence
- TECHSPEC® Vega™ Nd:YAG Laser Line Beam Expanders Also Available



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  $\lambda/10$  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 highly tunable Thulium and Holmium sources.

For more information on beam expanders and their application, please see online for our Technical Resource: [Application Note on Beam Expanders](#).

<b>Wavelength Range (nm):</b>	1030-1550
<b>Expansion Power:</b>	5X
<b>Entrance Aperture (mm):</b>	7.1
<b>Exit Aperture (mm):</b>	25.5
<b>Transmitted Wavefront, P-V:</b>	$\lambda/10$ for 4.0mm input beam (nominal, $\lambda = \text{DWL}$ )
<b>Mounting Threads:</b>	Input: Male M30 x 1 Output: Female M34 x 0.5
<b>Substrate:</b>	Fused Silica
<b>Housing Diameter (mm):</b>	39.95
<b>Length (mm):</b>	92.55
<b>Angle of Incidence (°):</b>	0
<b>Coating:</b>	Laser NIR (1030-1550nm)
<b>Transmission (%):</b>	>97.2% (nominal)
<b>Coating Specification:</b>	$R_{\text{avg}} \leq 0.7\%$ @ 1030-1550nm @ 0° AOI
<b>Damage Threshold, Pulsed:</b>	2 J/cm <sup>2</sup> @ 1064nm, 20ns, 20Hz
<b>Divergence Adjustment:</b>	Rotating Optics

