



CO₂ Laser Beam Expanders

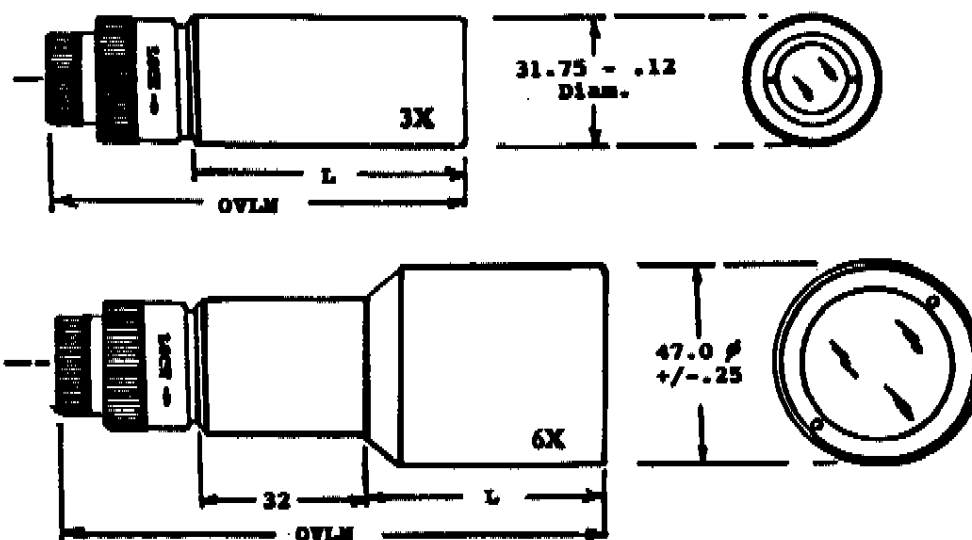
Photonic Devices offers this series of refractive galilean beam expanders for use with low-and medium-power CO₂ lasers. These up-collimators are ideally suited to mate the laser's output with dual-axis scanners and flat field lenses in marking and engraving applications. All lens elements are fabricated from ZnSe and are computer-optimized for minimum wavefront deformation. The lens surfaces are antireflection coated to reduce fresnel reflections to less than 0.25%. Optical power handling capability is in excess of 200 watts.

Input Aperture: 8mm diameter

Surface Quality: 30:20

Insertion Loss: <2% @ 10600nm

Wavefront: <0.03 waves



Model No.	Magnification	Output Aperture	L (mm)	OVLN* (mm)
06-GBE20-2X-10.6	2.0X	20 mm	37.8	71.9
06-GBE17-2.25X-10.6	2.25X	17 mm	43.7	80.8
06-GBE17-2.5X-10.6	2.5X	17 mm	57.7	91.9
06-GBE17-3X-10.6	3.0X	17 mm	57.7	92.6
06-GBE20-3.75X-10.6	3.75X	20 mm	57.7	93.4
06-GBE36-6X-10.6	6.0X	36 mm	58.8	126.3

*Overall length....Each beam expander is shipped preset with the central air space set for best collimation. Should a focal shift be required, a radial split ring configuration provides positive locking while maintaining centration of the input optic.

Photonic Devices custom designs beam expanders with a variety of apertures and magnification values for 10.6 microns as well as for other laser wavelengths. Please call to discuss your specific application.