

OPTOMAN MODERATE POWER BEAM EXPANDERS



OPTOMAN IBS-coated optics deliver excellent performance with **low losses** and **reliable beam quality**. Optics ensure high transmission and stable optical properties, **reducing energy loss** and **maintaining beam integrity**. With precise IBS coated optics, beam expanders feature excellent environmental stability and provide a dependable solution for applications that require consistent performance.

Recommended when you have:

- <100W @ 1030/1070 nm
- <30W @ 515/532 nm
- <10W @ 343/355 nm



OPTOMAN ZOOM BEAM EXPANDERS 1X - 3X



Features

- Sturdy mechanical design.
- Fine divergence adjustment.
- Compact size.

LIDT

- $>6.5 \text{ J/cm}^2$ @ 1064 nm, 10 ns, 100 Hz
- $>2 \text{ J/cm}^2$ @ 532 nm, 10 ns, 100 Hz
- $>0.8 \text{ J/cm}^2$ @ 355 nm, 10 ns, 100 Hz

Specifications

Wavelength 343, 355, 515, 532, 1030, 1064, 1070 nm

Magnification range 1x-3x

Pointing stability $<1 \text{ mrad}$

Optical design Galileo

Diffraction limited performance Yes

Number of lenses 4

Transmittance $>99\%$

No internal ghosts Yes

No internal ghosts in reversed No

Mounting thread M34 x 0.5 on exit end

Clamping $\varnothing 37.5 \times 17 \text{ mm}$ cylinder



Max recommended input beam \varnothing

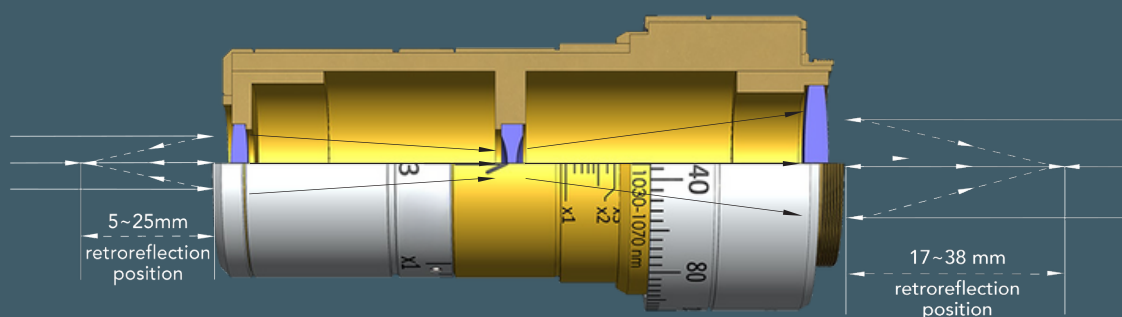
	343-355 nm	515-532 nm	1030-1070 nm
x1 -	7 mm	8 mm	9 mm
x2 -	4.5 mm	5 mm	6 mm
x3 -	3.5 mm	4 mm	5 mm

Notes

- Max input beam \varnothing recommendation is for diffraction limited operation
- Extra collimation adjustment range for highly diverging beams
- Lockable lens positions
- High-purity fused silica lenses
- Laser should be turned off while zooming
- Custom wavelengths available

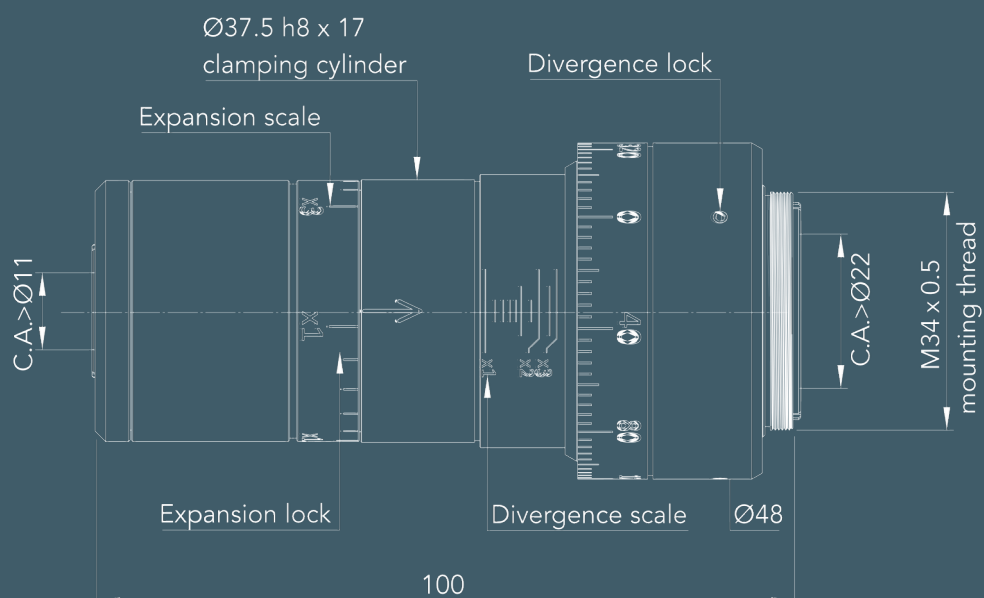


EXTERNAL RETRO-REFLECTIONS



Retroreflections in regular mode - at 5~25mm

Retroreflections in reverse (beam reduction) mode - at 17~38mm



OPTOMAN

ZOOM BEAM EXPANDERS 0.6X - 1.9X



Features

- Sturdy mechanical design.
- Fine divergence adjustment.
- Compact size.

LIDT

- >6.5 J/cm² @ 1064 nm, 10 ns, 100 Hz
- >2 J/cm² @ 532 nm, 10 ns, 100 Hz
- >0.8 J/cm² @ 355 nm, 10 ns, 100 Hz

Specifications

Wavelength	343, 355, 515, 532, 1030, 1064, 1070 nm
Magnification range	0.6x-1.9x
Pointing stability	<1 mrad
Optical design	Gallileo
Diffraction limited performance	Yes
Number of lenses	3
Transmittance	>99%
No internal ghosts	Yes
Mounting thread	M34 x 0.5 on exit end
Clamping	Ø37.5 x 17 mm cylinder



Max recommended input beam Ø

	343-355 nm	515-532 nm	1030-1070 nm
0.6x-	6.5 mm	7 mm	7 mm
1.0x-	5 mm	5 mm	5 mm
1.9x-	3.7 mm	3.7 mm	3.7 mm

Notes

- Max input beam Ø recommendation is for diffraction limited operation
- Divergence adjustment allows diverging input beam collimation
- Lockable lens positions
- IBS coated quartz lenses for maximum performance and longevity
- Laser should be turned off while zooming
- Custom wavelengths available