

Beam Expander 1x-4x Steadfast

Very Robust Fused Silica Systems



- Lockable optical elements
- High beam pointing stability (< 1 mrad)
- Diffraction-limited performance over the whole range of magnifications
- Novel mechanical design

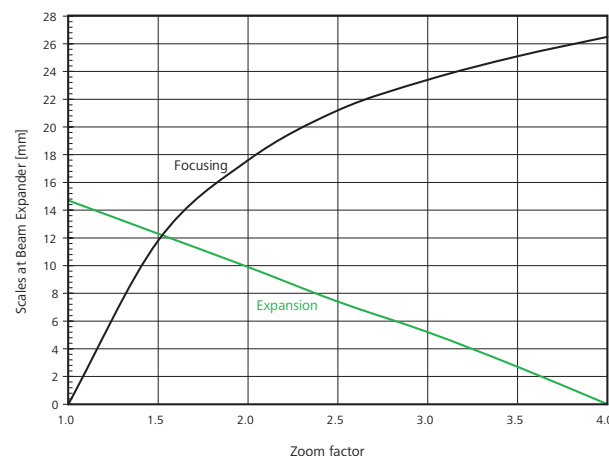
	1030-1080 nm	515-540 nm	355 nm
GDD ¹⁾ :	134 fs ²	547 fs ²	972 fs ²
LIDT coating pulsed; CW ²⁾ :	5.0 J/cm ² * (τ /[ns]) ^ 0.30; 5.0 MW/cm ²	2.5 J/cm ² * (τ /[ns]) ^ 0.35; 2.5 MW/cm ²	1.0 J/cm ² * (τ /[ns]) ^ 0.40; 1.0 MW/cm ²
LIDT system pulsed; CW ²⁾ :	1.00 J/cm ² * (τ /[ns]) ^ 0.30; 1.00 MW/cm ²	0.50 J/cm ² * (τ /[ns]) ^ 0.35; 0.50 MW/cm ²	0.20 J/cm ² * (τ /[ns]) ^ 0.40; 0.20 MW/cm ²

Zoom factor	Ø entrance pupil ³⁾		
	1030-1080 nm	515-540 nm	355 nm
1x	4.0 mm	4.0 mm	4.0 mm
2x	4.0 mm	4.0 mm	4.0 mm
3x	4.0 mm	4.0 mm	4.0 mm
4x	4.0 mm	4.0 mm	4.0 mm
Order Number:	582823	593355	593354

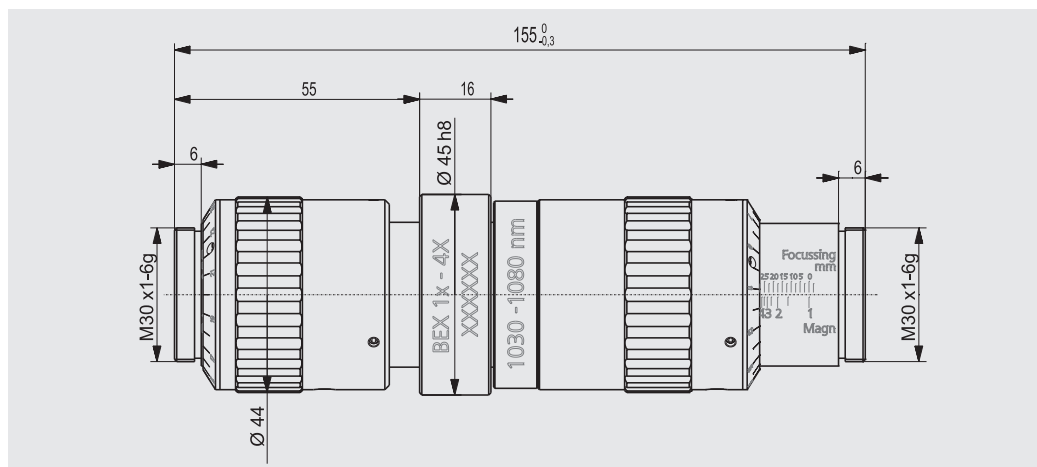
¹⁾ Group delay dispersion | ²⁾ See technical note
³⁾ Recommended maximum diameter of entrance pupil

Specification

Materials		
Entrance elements:	Fused silica	
Exit elements:	Fused silica	
Transmission:	≥ 97 %	
Beam pointing stability:	≤ 1 mrad	
Mounting Ø:	45.0 (+0.0/-0.04) mm or M30x1 mounting threads at both entrance and exit	
Weight:	0.37 kg	
Magnification		
Magnification	Expansion scale	Focusing scale
1x	14.8 mm	0.0 mm
4x	0.0 mm	26.5 mm



Fine adjustment of the zooming and focusing scale by the combination of mm scales and vernier scales.



Pending Design in
 DE 40 2016 001 282.4
 Patent
 DE 10 2015 009 124.7
 Granted Patent
 DE 10 2015 009 124
 Patent pending CN-,
 CZ-, KR-, US-Appl.

Same dimensions for
 all wavelength versions.