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

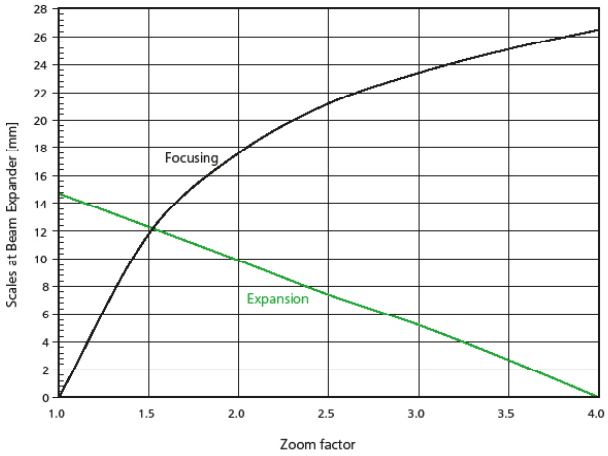
	1030-1080 nm	515-540 nm	355 nm
GDD[1]:	134 fs²	547 fs²	972 fs²
LIDT coating pulsed; CW[2]:	5.0 J/cm² * (τ/[ns]) ^ 0.30; 5.0 MW/cm²	2.5 J/cm² * (τ/[ns]) ^ 0.35; 2.5 MW/cm²	1.0 J/cm² * (τ/[ns]) ^ 0.40; 1.0 MW/cm²
LIDT system pulsed; CW[2]:	1.00 J/cm² * (τ/[ns]) ^ 0.30; 1.00 MW/cm²	0.50 J/cm² * (τ/[ns]) ^ 0.35; 0.50 MW/cm²	0.20 J/cm² * (τ/[ns]) ^ 0.40; 0.20 MW/cm²

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	Expansion scale	Focusing scale
1x	14.8 mm	0.0 mm
4x	0.0 mm	26.5 mm

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:	739795*	739800*	739799*

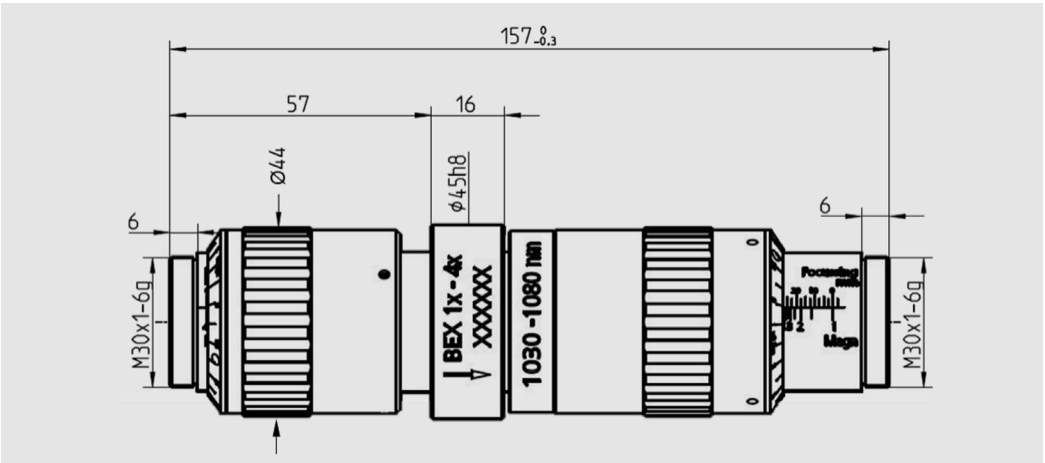


Fine adjustment of the zooming and focusing scale by the combination of mm scales and vernier scales.

* Please note: Order number was changed. Previous one was 582823, 593355 and 593354.

[1] Group delay dispersion | [2] See technical note

[3] Recommended maximum diameter of entrance pupil



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

JENOPTIK Optical Systems GmbH
Goeschwitzer Strasse 25 | 07745 Jena | Germany
Phone +49 3641 65-3148 | Fax -3677
optics@jenoptik.com | www.jenoptik.com/optics

739797-0225-en