

Beam Expander 1x-8x

High Power Systems

- Diffraction-limited performance for all magnifications
- No internal foci & no internal reflections in elements for all magnifications
- Highest beam pointing stability (≤ 0.3 mrad)

	1030-1080 nm	515-540 nm	355 nm
GDD ¹⁾ :	339 fs ²	1580 fs ²	2810 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]) [^] 0.30; 2.5 MW/cm ²	1.0 J/cm ² * (τ /[ns]) [^] 0.40; 1.0 MW/cm ² ⁴⁾
LIDT system pulsed; CW ²⁾ :	0.35 J/cm ² * (τ /[ns]) [^] 0.30; 0.35 MW/cm ²	0.20 J/cm ² * (τ /[ns]) [^] 0.30; 0.20 MW/cm ²	0.10 J/cm ² * (τ /[ns]) [^] 0.40; 0.10 MW/cm ² ⁴⁾

Zoom factor	\varnothing entrance pupil ³⁾		
	1030-1080 nm	515-540 nm	355 nm
1x	9.0 mm	9.0 mm	9.0 mm
2x	9.0 mm	9.0 mm	9.0 mm
3x	9.0 mm	9.0 mm	9.0 mm
4x	7.5 mm	7.5 mm	7.5 mm
5x	6.0 mm	6.0 mm	6.0 mm
6x	5.0 mm	5.0 mm	5.0 mm
7x	4.5 mm	4.5 mm	4.5 mm
8x	4.0 mm	4.0 mm	4.0 mm
Order Number:	606997	627443	586117

¹⁾ Group delay dispersion | ²⁾ See technical note

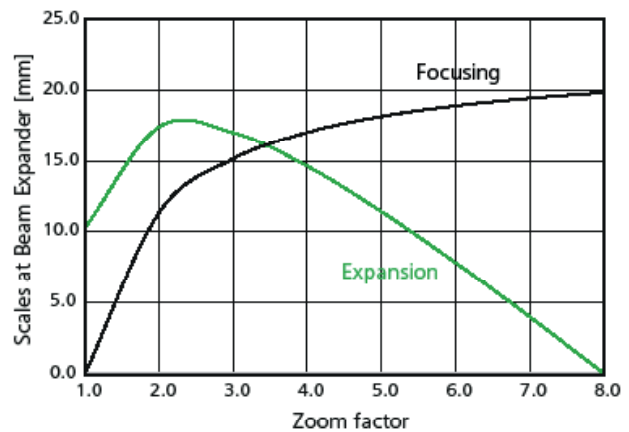
³⁾ Recommended maximum diameter of entrance pupil

⁴⁾ For UV lasers, the LIDT values are valid for pulse durations > 10 ps. For shorter pulses please be advised to test.

Specification

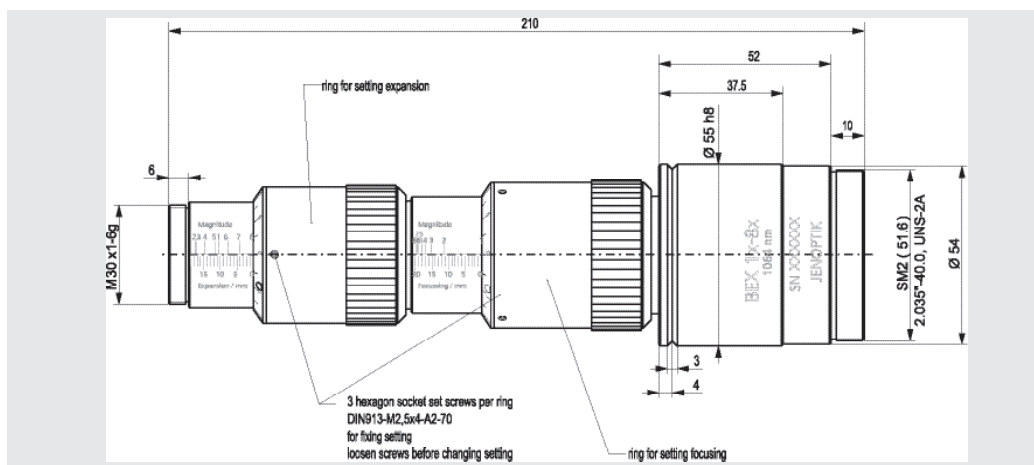
Materials	
Entrance elements:	Fused silica
Exit elements:	Fused silica
Transmission:	≥ 97 %
Beam pointing stability:	≤ 0.3 mrad
Mounting \varnothing :	55.0 (+0.0/-0.05) mm or mounting threads M30x1
Weight:	0.54 kg

Magnification	Expansion scale	Focusing scale
1x	10.3 mm	0.0 mm
8x	0.0 mm	19.9 mm



This graph shows an exemplary configuration.

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



Registered Design in DE 40 2016 001 282.4
Registered in CN, EU, HK, IN, JP, KR
Pending in TW
Granted Patent DE 10 2015 009 124
Patent pending CN-, CZ-, KR-, US-Appl.

Same dimensions for all wavelength versions.