

# Beam Expander 1x-8x | 355 nm

## High Power Systems

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

	355 nm
GDD <sup>1)</sup> :	2810 fs <sup>2</sup>
LIDT coating pulsed; CW <sup>2)</sup> :	1.0 J/cm <sup>2</sup> * ( $\tau$ [ns]) <sup>0.40</sup> ; 1.0 MW/cm <sup>2</sup> <sup>4)</sup>
LIDT system pulsed; CW <sup>2)</sup> :	0.10 J/cm <sup>2</sup> * ( $\tau$ [ns]) <sup>0.40</sup> ; 0.10 MW/cm <sup>2</sup> <sup>4)</sup>

Magnification	$\varnothing$ entrance pupil <sup>3)</sup> 355 nm	Expansion scale	Focusing scale
1x	9.0 mm	10.3 mm	0.0 mm
2x	9.0 mm	17.5 mm	11.4 mm
3x	9.0 mm	17.0 mm	15.2 mm
4x	7.5 mm	14.6 mm	17.0 mm
5x=	6.0 mm	11.4 mm	18.2 mm
6x	5.0 mm	7.8 mm	18.9 mm
7x	4.5 mm	4.0 mm	19.5 mm
8x	4.0 mm	0.0 mm	19.9 mm

Order Number: **586117**

<sup>1)</sup> Group delay dispersion | <sup>2)</sup> See technical note

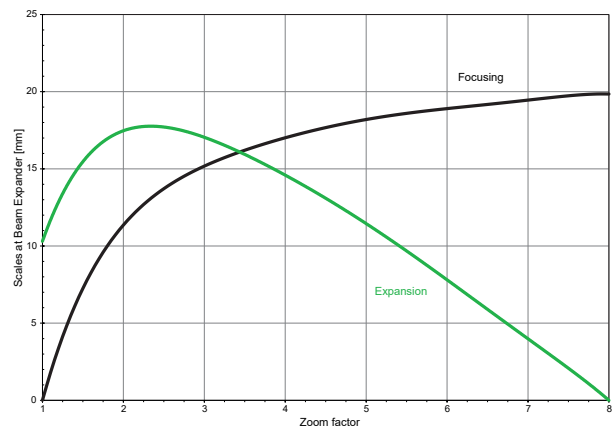
<sup>3)</sup> Recommended maximum diameter of entrance pupil

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

### Specification

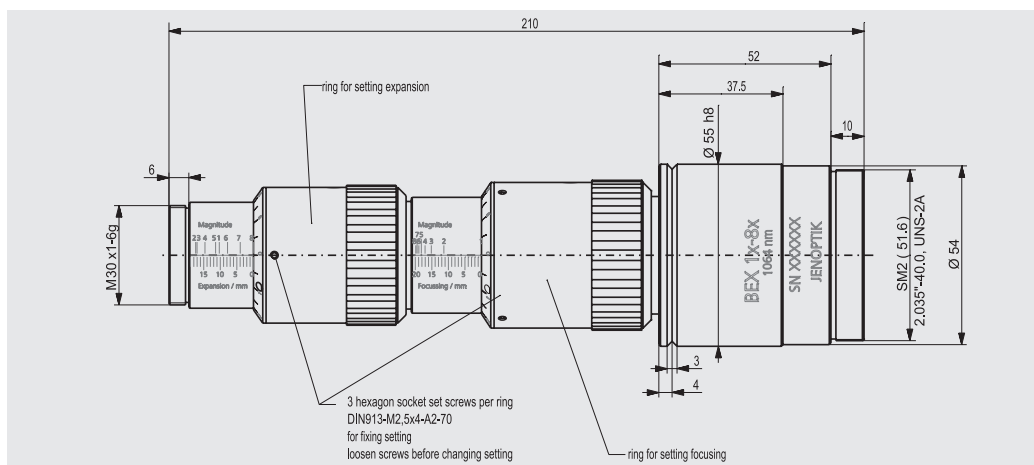
#### Materials

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



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.