

# Beam Expander 1x-4x

## Fused Silica Systems

- Diffraction-limited performance for all magnifications
- No internal foci
- No internal reflections in elements for all magnifications

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

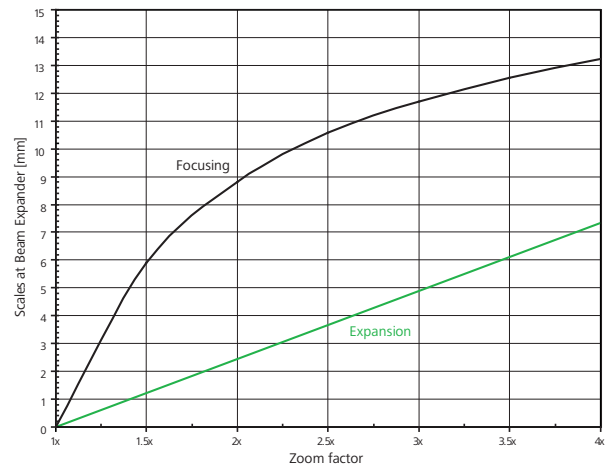
Zoom factor	Ø entrance pupil <sup>3)</sup>		
	1030-1080 nm	515-540 nm	355 nm
1x	4.0 mm	4.0 mm	4.0 mm
2x	4.0 mm	4.0 mm	4.0 mm
3x	4.0 mm	4.0 mm	4.0 mm
4x	4.0 mm	4.0 mm	4.0 mm
<b>Order Number:</b>	<b>017052-012-26</b>	<b>017052-202-26</b>	<b>017052-402-26</b>

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

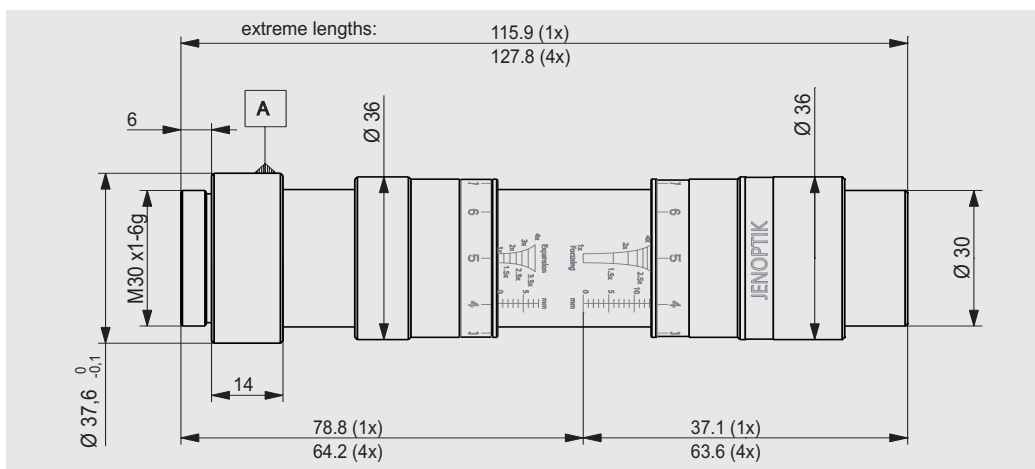
### Specification

Materials	
Entrance elements:	Fused silica
Exit elements:	Fused silica
Transmission:	≥ 97 %
Mounting Ø:	37.6 (0/-0.1) mm or mounting thread M30x1
Weight:	0.19 kg

Magnification	Expansion scale	Focusing scale
1x	0.0 mm	0.0 mm
4x	7.4 mm	13.3 mm



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



Registered Design in  
EU 000952049  
Granted Patent  
DE 10 2009 025 182

Same dimensions for  
all wavelength versions.