

LINOS Beam Expander

1x - 4x, 340 - 360nm, fused silica, low outgassing

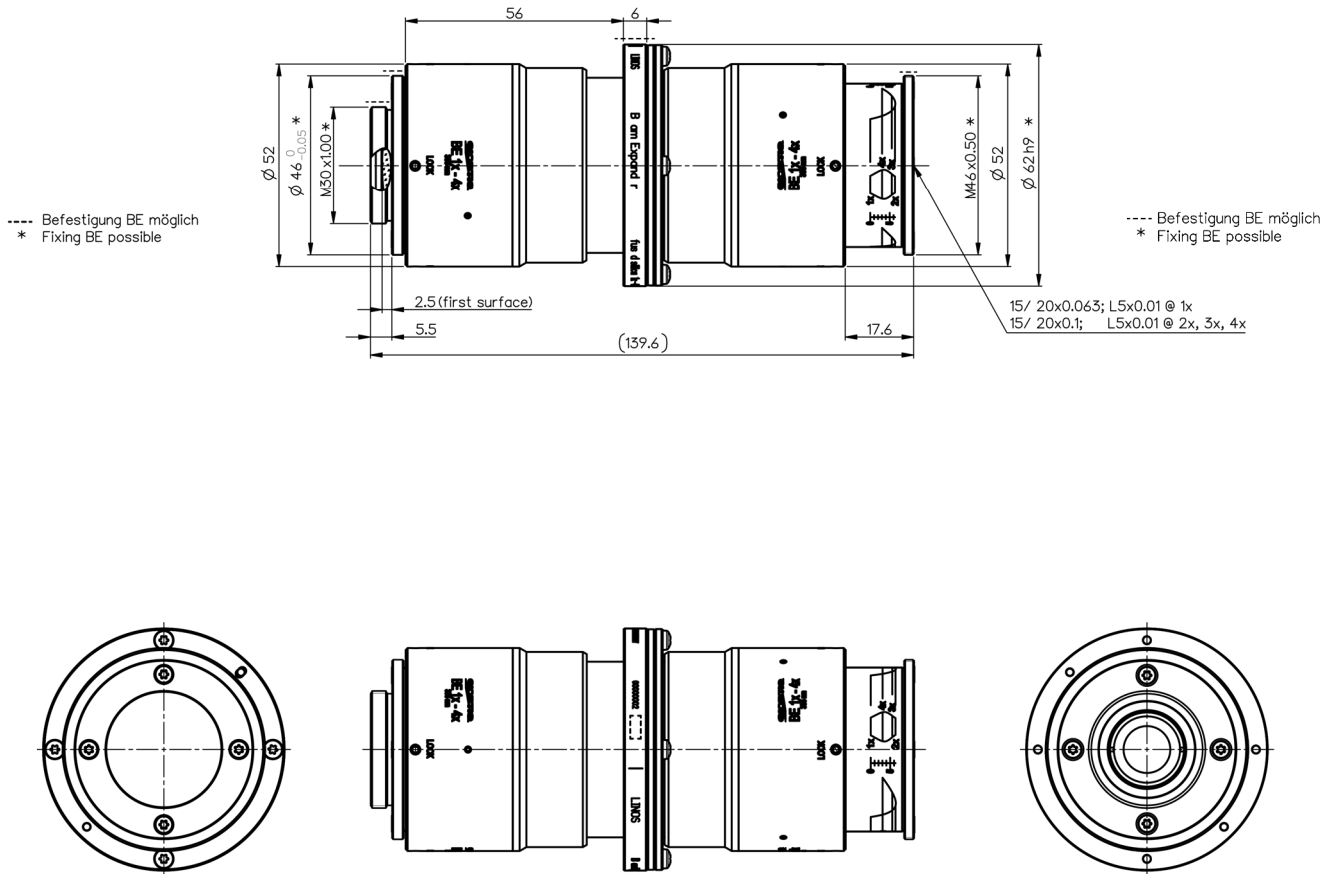


Part number	4401-613-000-28		
Design wavelength	λ	(nm)	355
Expansion	Γ'		1x - 4x (0.9x - 4.1x)*
Lens material			Fused Silica
Material			Stainless Steel
Max. entrance beam diameter ($1/e^2$ / truncated) for magnification $1.0 \leq \Gamma \leq 2.0$	$E_{max} \varnothing$	(mm)	10.0 / 12.0
Max. entrance beam diameter ($1/e^2$ / truncated) for $2.0 < \Gamma \leq 2.5$	$E_{max} \varnothing$	(mm)	8.0 / 9.6
Max. entrance beam diameter ($1/e^2$ / truncated) for $2.5 < \Gamma \leq 3.0$	$E_{max} \varnothing$	(mm)	6.5 / 7.8
Max. entrance beam diameter ($1/e^2$ / truncated) for $3.0 < \Gamma \leq 4.0$	$E_{max} \varnothing$	(mm)	5.0 / 6.0
Max. exit beam diameter ($1/e^2$ / truncated)		(mm)	20 / 24
Max. mechanical exit aperture		(mm)	30
Group delay dispersion at λ	GDD	(fs ²)	2517
Total transmission @ 340-360nm	T	(%)	≥ 96
Pointing Stability		(mrad)	< 0.3
LIDT coating @ 355nm, 6ns, 100Hz		(J/cm ²)	4
Focused back reflex positions from first surface		(mm)	in the range of 7.0 - 45.7 depending on the magnification and at 38.1; 46.3
Weight		(g)	1400
Protective window (fused silica) on exit side	PG		4401-613-008-00

Subject to technical change

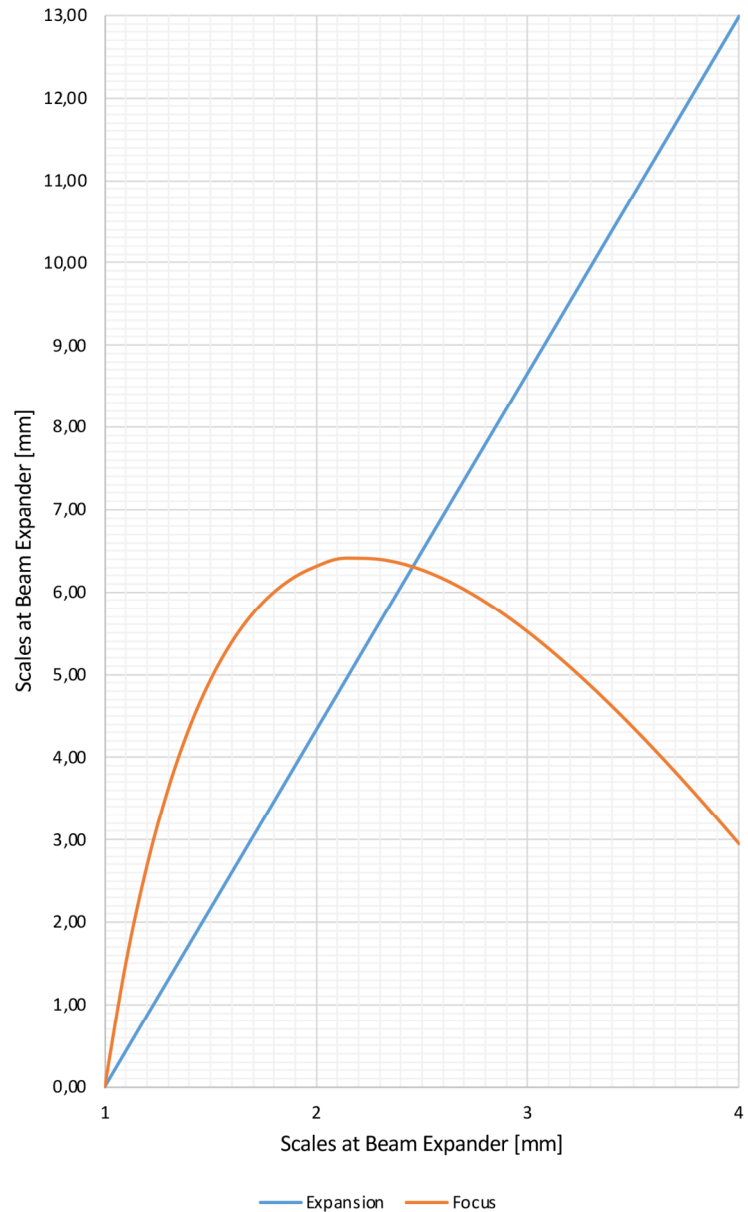
*additional travel range for divergence and wavelength compensation

Mechanical drawing



Zoom factor adjustment curves

Magnification	Expansion [mm]	Focus [mm]
1,0	0,0	0,0
1,1	0,4	1,5
1,2	0,9	2,7
1,3	1,3	3,6
1,4	1,7	4,4
1,5	2,2	4,9
1,6	2,6	5,4
1,7	3,0	5,7
1,8	3,5	6,0
1,9	3,9	6,2
2,0	4,3	6,3
2,1	4,8	6,4
2,2	5,2	6,4
2,3	5,6	6,4
2,4	6,1	6,3
2,5	6,5	6,3
2,6	6,9	6,2
2,7	7,4	6,0
2,8	7,8	5,9
2,9	8,2	5,7
3,0	8,7	5,5
3,1	9,1	5,3
3,2	9,5	5,1
3,3	10,0	4,9
3,4	10,4	4,6
3,5	10,8	4,4
3,6	11,3	4,1
3,7	11,7	3,8
3,8	12,1	3,5
3,9	12,6	3,2
4,0	13,0	2,9



Notes



For technical explanations, see our homepage.