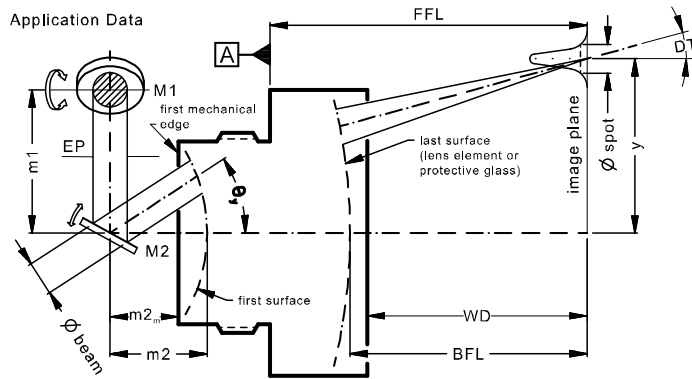


LINOS F-Theta-Ronar Lens

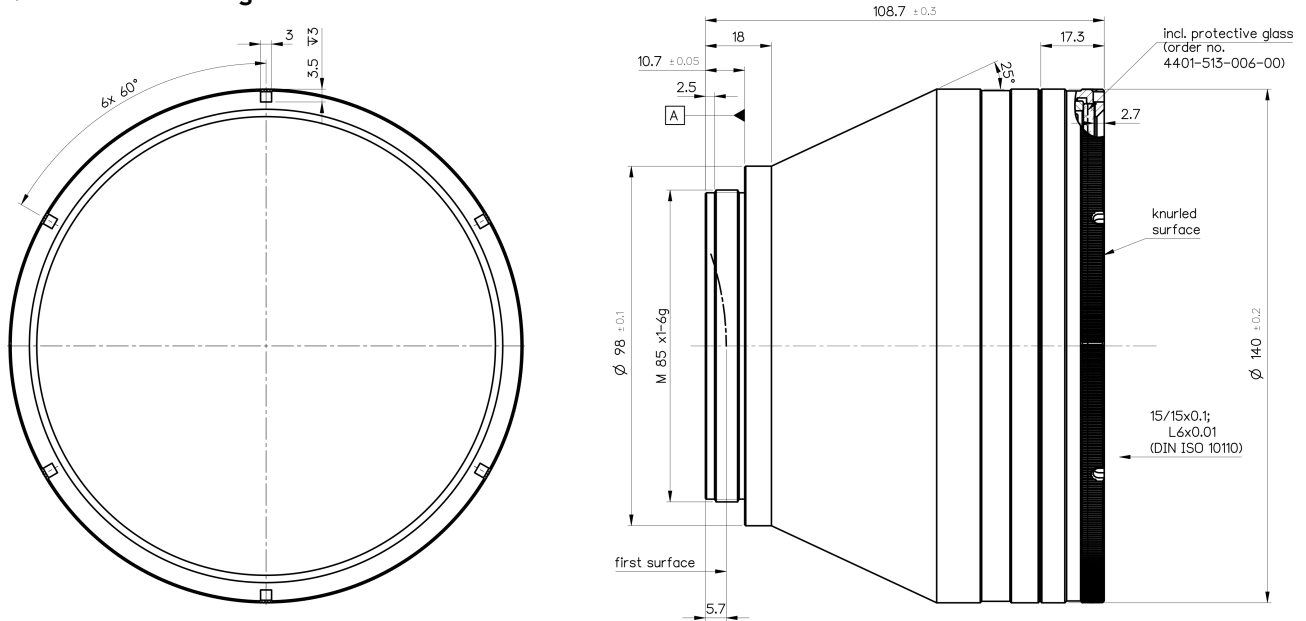
$f = 167\text{mm}$, 1030-1080nm, telecentric, fused silica, low absorption



Part number	4401-513-000-26			
Design wavelength	λ	(nm)	1064	
Effective focal length	EFL	(mm)	167.3	
Back focal length	BFL	(mm)	217.9	
Working distance	WD	(mm)	215.4	
Flange focal length	FFL	(mm)	313.2	
Beam diameter 1/e ² truncated	$\varnothing_{\text{beam}}$	(mm)	14.0	20.0
Recommended mirror distance m1	m1	(mm)	17.0	25.6
Recommended mirror distance m2	m2	(mm)	28.0	28.0
Recommended mirror distance m2 _{mechanical}	m2 _m	(mm)	22.3	22.3
Scan angle	$\pm\theta_{x,y}$	(°)	15.2	14.9
Scan area (edge length of scan field)	2x * 2y	(mm ²)	85 x 85	84 x 84
Spot diameter	$\varnothing_{\text{spot}}$	(μm)	23	16
Telecentric error (maximum deviation)	DT	(°)	4.3	3.7
Total transmission @ 1030 - 1080nm	T	(%)	> 96	
Group delay dispersion at λ	GDD	(fs ²)	1198	
LIDT coating @ 1064nm, 12ns, 100Hz		(J/cm ²)	40	
LIDT coating @ 1030nm, 291fs, 5kHz		(J/cm ²)	0.9	
Focused back reflex positions from first surface		(mm)	4.0; 7.6; 12.0; 12.3; 15.4; 16.0; 38.3	
Weight		(g)	2100	
Protective glass	PG		4401-513-006-00	

Optical parameters calculated for a 1-mirror system
 Subject to technical change

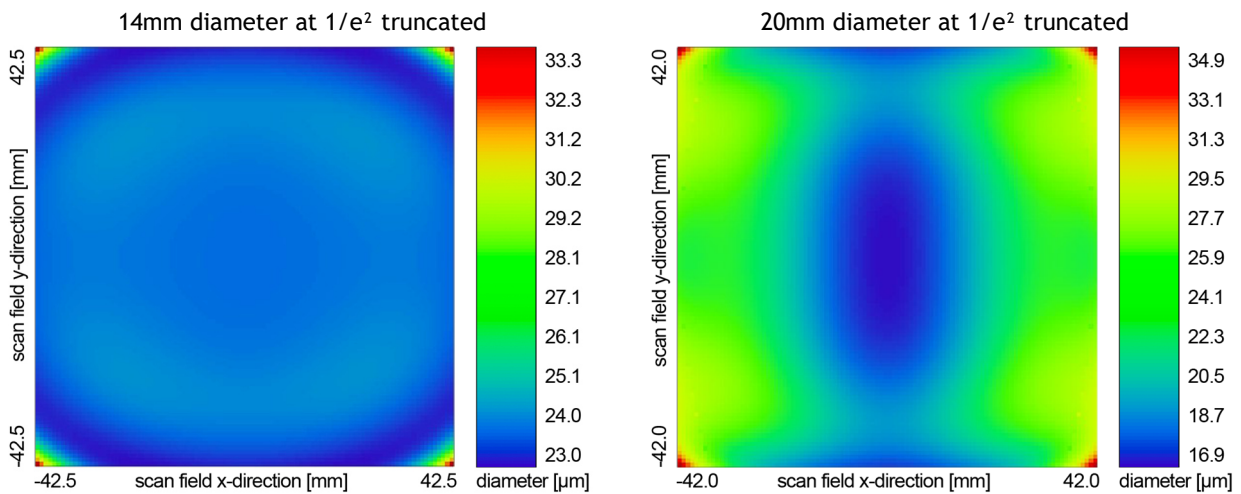
Mechanical drawing



Dimensions without tolerances are nominal values and illustration not to scale

Spot variation over scan field

Spot radius in μm at $1/e^2$ level for a Gaussian laser beam ($M^2=1$), focused over scan field
Field size and mirror distances as given above for a 2 mirror scan system, vignetting $\leq 1\%$



Notes:



For technical explanations, see our homepage.

In a 1-mirror system, the entrance pupil (EP) is the position of the scan mirror. In a 2-mirror system, it is the point where the scan mirrors should be placed around symmetrically to reach specified performance.