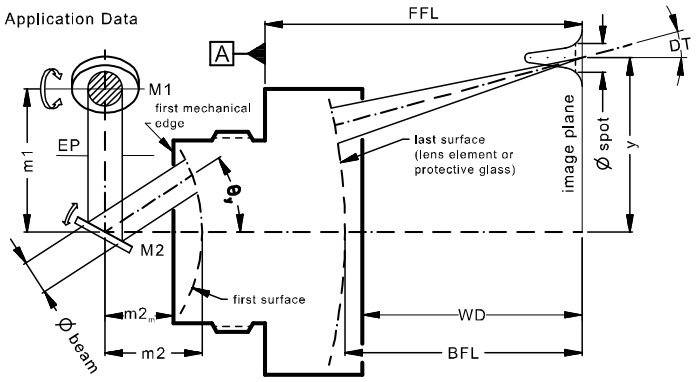
LINOS F-Theta-Ronar Lens

f = 118mm, 1030-1080nm, telecentric, fused silica, low absorption



Part number	4401-607-000-26			
Design wavelength	λ	(nm)	1064	
Effective focal length	EFL	(mm)	118.0	
Back focal length	BFL	(mm)	155.6	
Working distance	WD	(mm)	150.0	
Flange focal length	FFL	(mm)	233.9	
Beam diameter $1/e^2$ truncated	Øbeam	(mm)	10.0	14.0
Recommended mirror distance m1	m1	(mm)	13.0	17.0
Recommended mirror distance m2	m2	(mm)	28.0	28.0
Recommended mirror distance $m2_{mechanical}$	$m2_m$	(mm)	20.0	20.0
Scan angle	$\pm\theta_{x,y}$	(°)	17.0	15.6
Scan area (edge length of scan field)	2x * 2y	(mm^2)	67 x 67	50 x 50
Spot diameter	Øspot	(µm)	23	17
Telecentric error (maximum deviation)	DT	(°)	1.7	1.6
Total transmission @ 1030 - 1080nm	T	(%)	> 96	
Group delay dispersion at λ	GDD	(fs^2)	1263	
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)	3.3; 6.6; 19.7; 33.6	
Weight		(g)	1608	
Protective glass	PG		4401-499-005-00	

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

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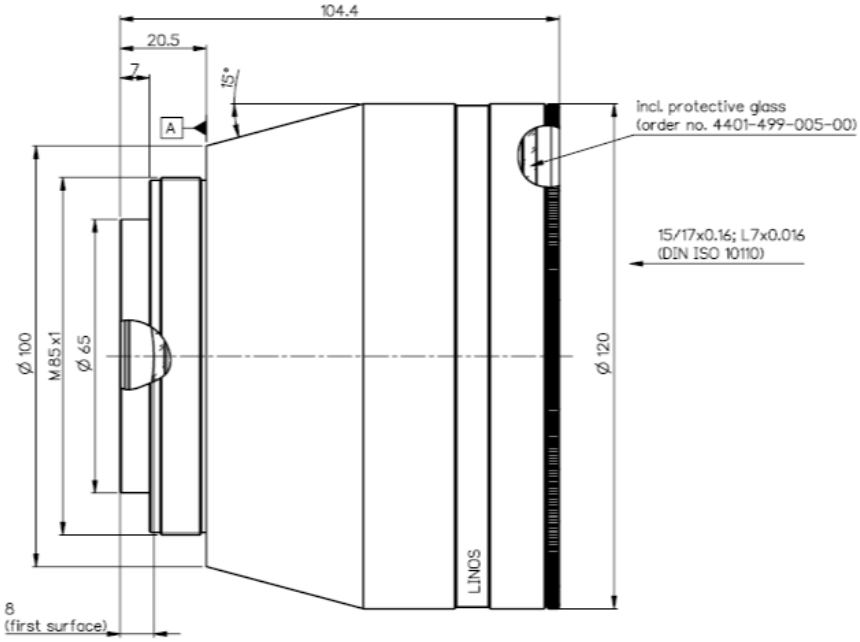
Mechanical drawing

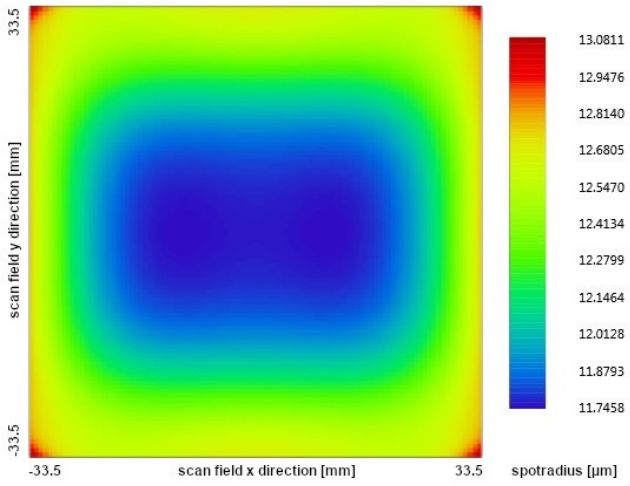


Dimensions without tolerances are nominal values and illustration not to scale

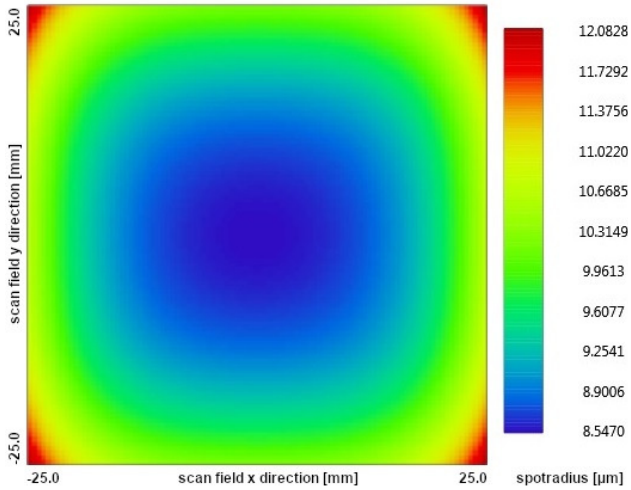
Spot variation over scanfield

Spot radius in µm at 1/e² level for a Gaussian laser beam (M^2=1)
field size and mirror distances as given above for a 2 mirror scan system

10mm diameter at 1/e² truncated



14mm diameter at 1/e² truncated



Max. scan field up to 62 x 62mm² free of vignetting

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.

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