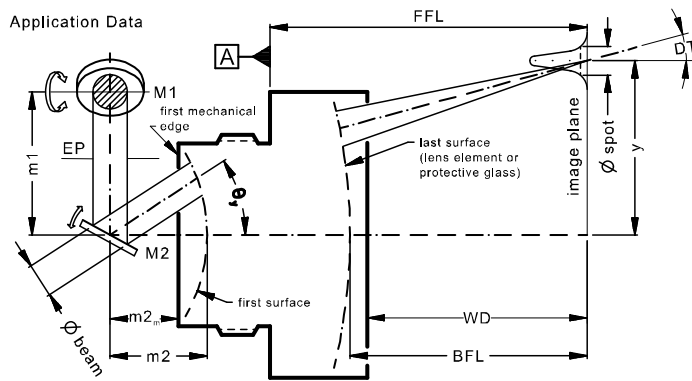


LINOS F-Theta-Ronar Lens

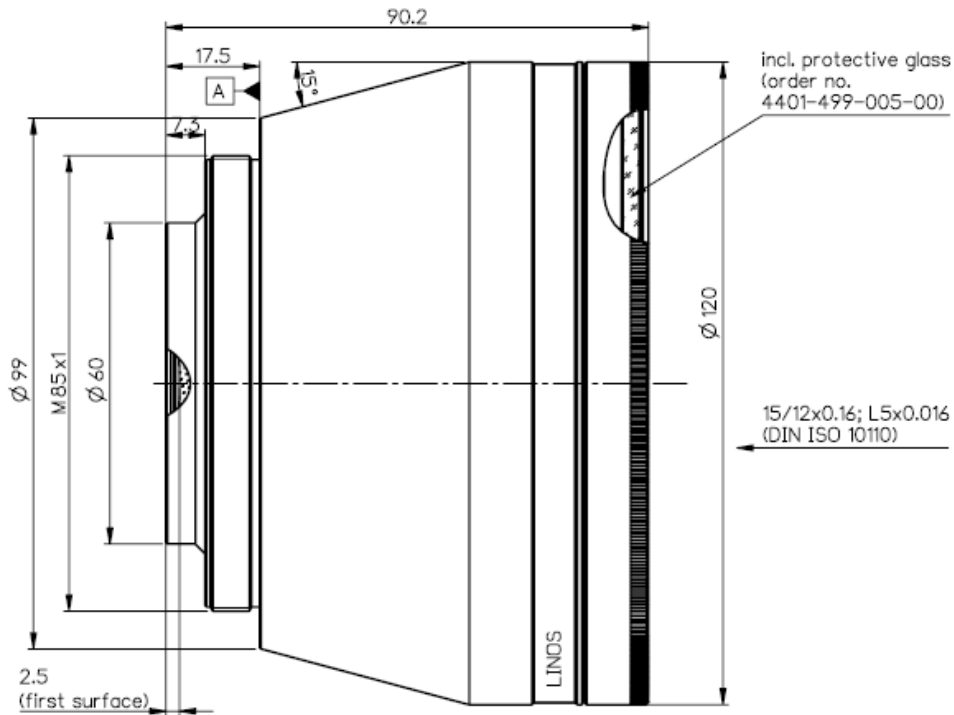
$f = 163\text{mm}$, 1030-1080nm, fused silica, low absorption



Part number	4401-589-000-26		
Design wavelength	λ	(nm)	1064
Effective focal length	EFL	(mm)	163.3
Back focal length	BFL	(mm)	221.1
Working distance	WD	(mm)	219.3
Flange focal length	FFL	(mm)	292.0
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)	22.5 28.5
Recommended mirror distance m2 _{mechanical}	m2 _m	(mm)	20.0 26.0
Scan angle	$\pm\theta_{x,y}$	(°)	15.2 11.7
Scan area (edge length of scan field)	2x * 2y	(mm ²)	85 x 85 66 x 66
Spot diameter	$\varnothing_{\text{spot}}$	(μm)	23 16
Telecentric error (maximum deviation)	DT	(°)	4.9 3.0
Total transmission @ 1030 - 1080nm	T	(%)	> 96
Group delay dispersion at λ	GDD	(fs ²)	1052
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)	14.7; 15.2; 199.7
Weight		(g)	1427
Protective glass	PG		4401-499-005-00

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

Mechanical drawing

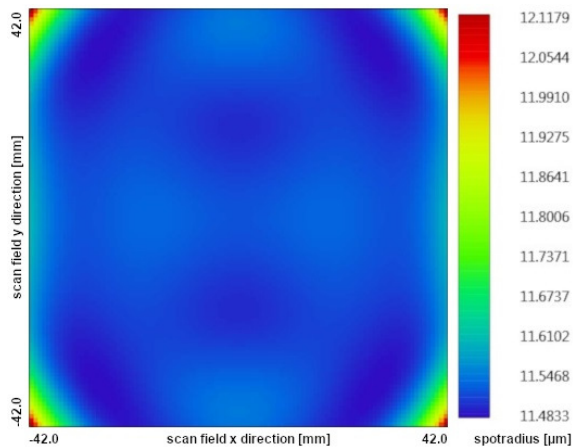


Dimensions without tolerances are nominal values and illustration not to scale

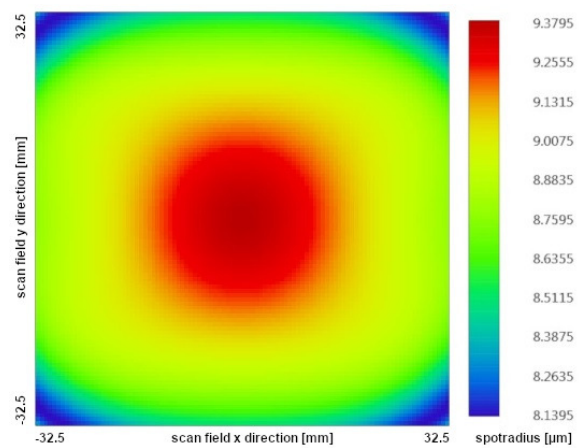
Spot variation over scanfield

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

14mm diameter at $1/e^2$ truncated



20mm diameter at $1/e^2$ truncated



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.