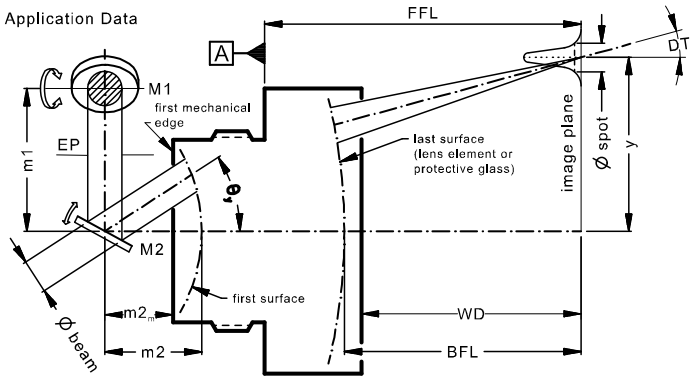
LINOS F-Theta-Ronar Lens

f = 420mm, 1064nm



Part number	4401-350-000-21		
Design wavelength	λ	(nm)	1064
Effective focal length	EFL	(mm)	420.5
Back focal length	BFL	(mm)	497.1
Working distance	WD	(mm)	494.2
Flange focal length	FFL	(mm)	548.8
Beam diameter $1/e^2$ truncated	Øbeam	(mm)	15.0
Recommended mirror distance m1	m1	(mm)	30.0
Recommended mirror distance m2	m2	(mm)	16.0
Recommended mirror distance $m2_{mechanical}$	$m2_m$	(mm)	8.3
Scan angle	$\pm\theta_{x,y}$	(°)	19.8
Scan area (edge length of scan field)	2x * 2y	(mm^2)	291 x 291
Spot diameter	Øspot	(µm)	55
Total transmission @ 1064nm	T	(%)	> 96
LIDT coating @ 1064nm, 9ns, 100Hz		(J/cm^2)	10
Focused back reflex positions from first surface		(mm)	2.3; 42.1; 61.0; 137.2; 137.5
Weight		(g)	1050
Protective glass	PG		4401-288-005-01

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

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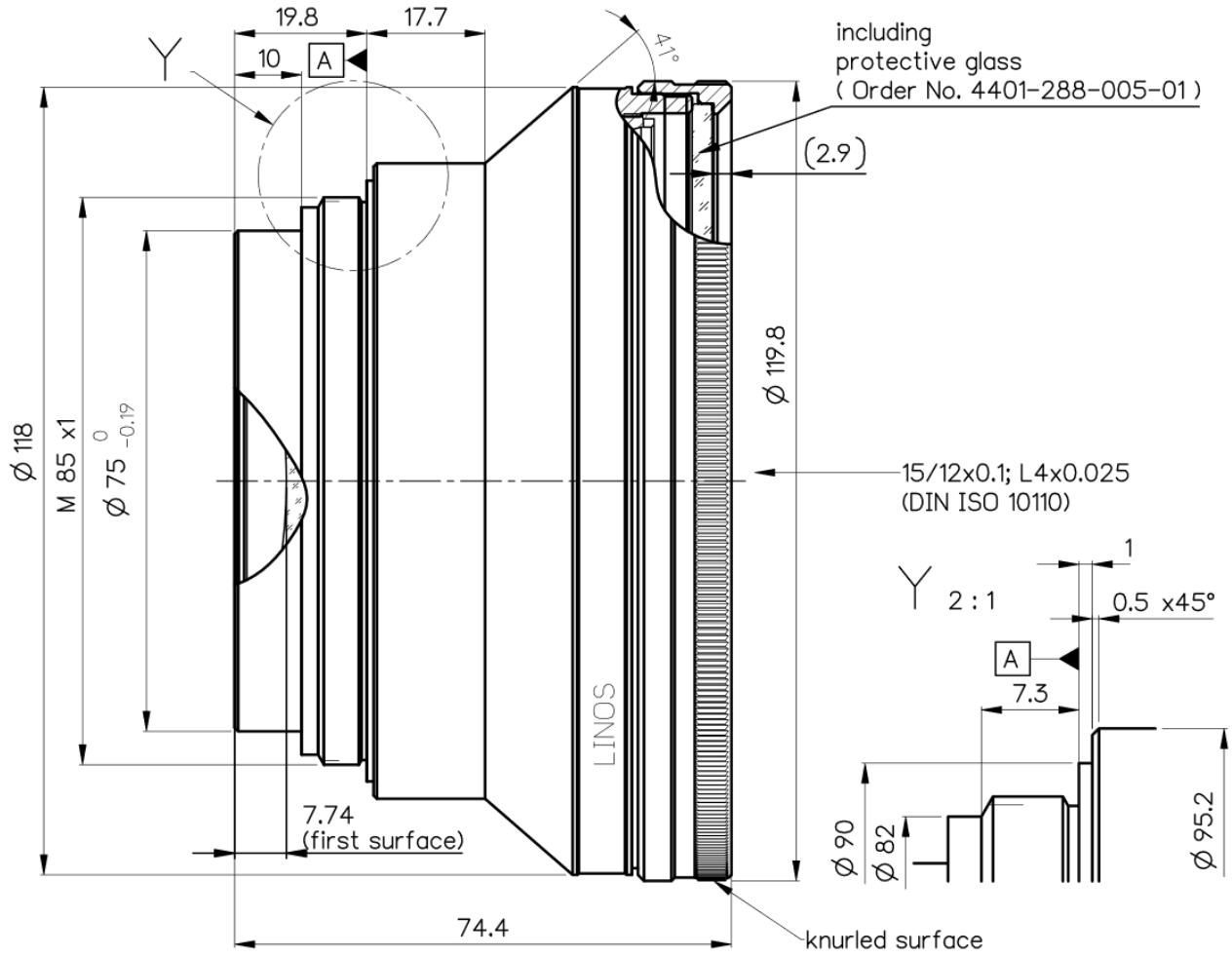
Mechanical drawing



Dimensions without tolerances are nominal values and illustration not to scale

Notes

For technical explanations, see our homepage.
[LINOS Laser Material Processing Optics | Excelitas]

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.

The actual LIDT of the lens, as well as effects such as thermal focus shift, depend on the specific system setup and laser parameters. We recommend testing the respective optical components before use. We are happy to support and advise you in selecting the right F-Theta lens!

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