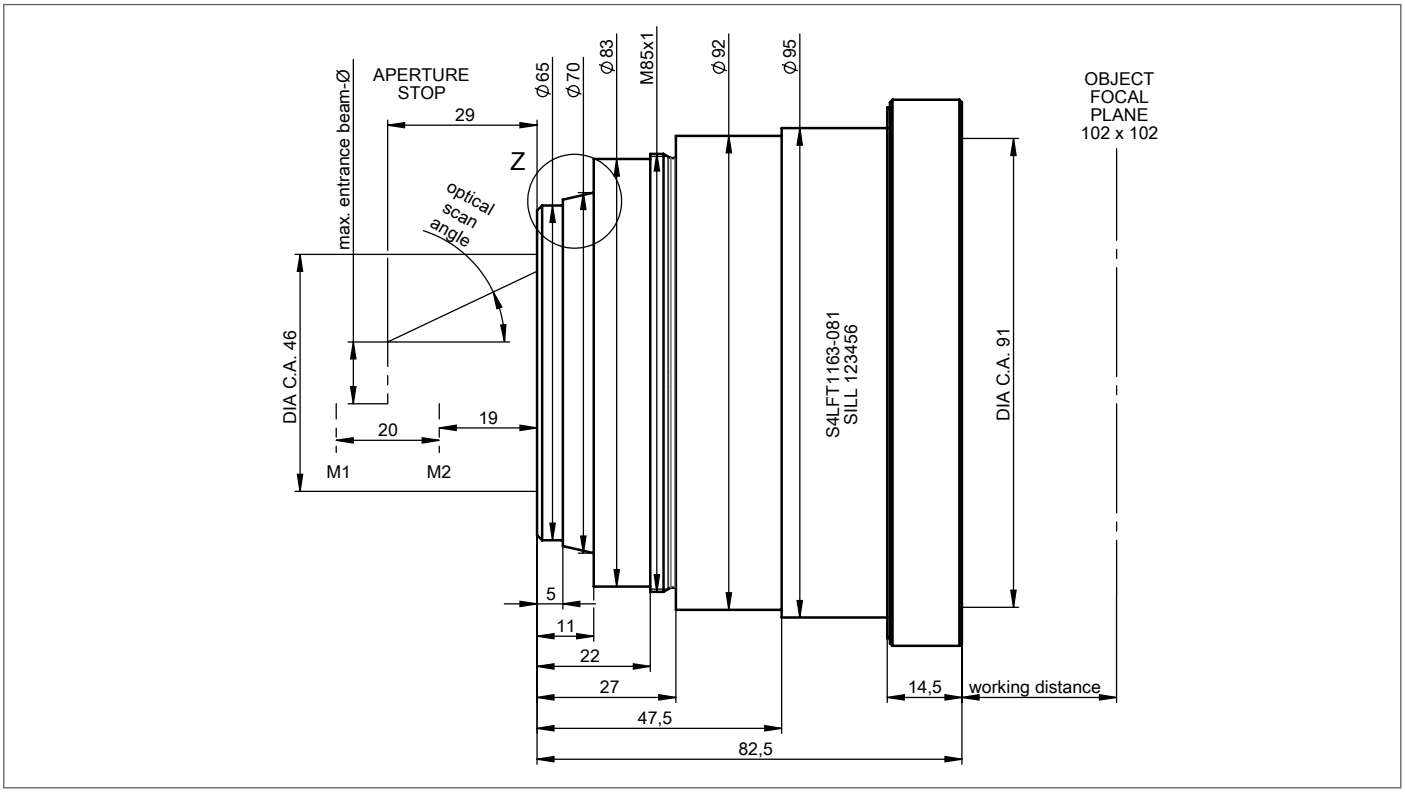
DATA SHEET

S4LFT1163-081

F-THETA
MULTI-SPECTRAL
532 + 1064 nm

OUTLINE DRAWING



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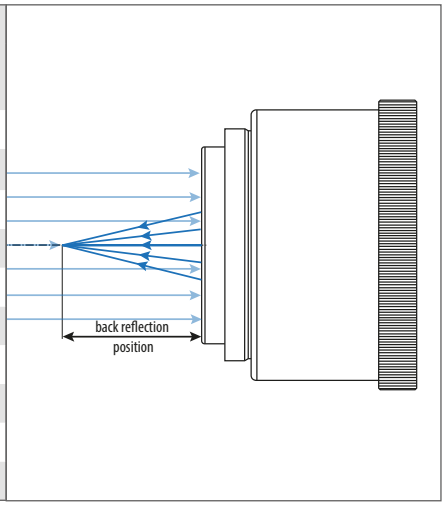
SPECIFICATIONS

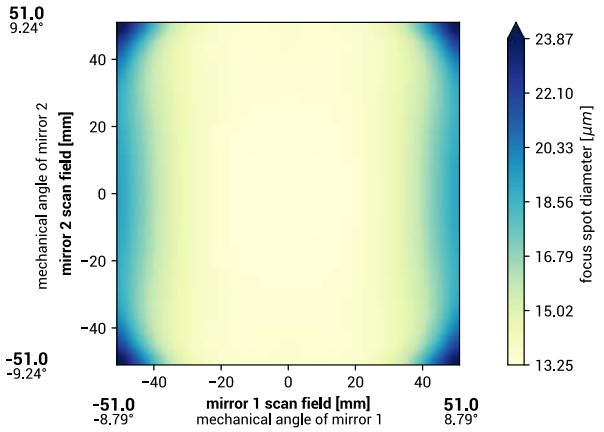
article number	S4LFT1163-081	
design wavelength [nm]	532	1064
effective focal length [mm]	163.1	163.1
max. entrance beam-Ø [mm]	12.0	
aperture stop distance [mm]	29.0	
working distance [mm]	159.9	159.0
scan area for a 2 mirror system with mirror distance from lens housing for mirror 2 / mirror 1	102 x 102 19.0 / 39.0	
max. telecentricity error [°]	12.7	12.7
lateral color shift [µm]	181	
chromatic focal shift [mm]	0.87	
total transmission [%]	> 96	> 96
lens material	optical glass	
LIDT (coating)	2.5 J/cm² per 1ns pulse at 50Hz	
SP and USP usable	no	
weight [kg]	1.3	
cover glass	S4LPG0090-081	
absorption [ppm]	not specified	
cleanliness	not specified	

BACK REFLECTION POSITION

back reflections [mm]	
for 532 nm	for 1064 nm
6.6	6.6
16.1	15.8
31.0	31.5
31.9	32.0
32.9	32.5
98.7	85.9
362.3	245.8
0.0	0.0
0.0	0.0
0.0	0.0

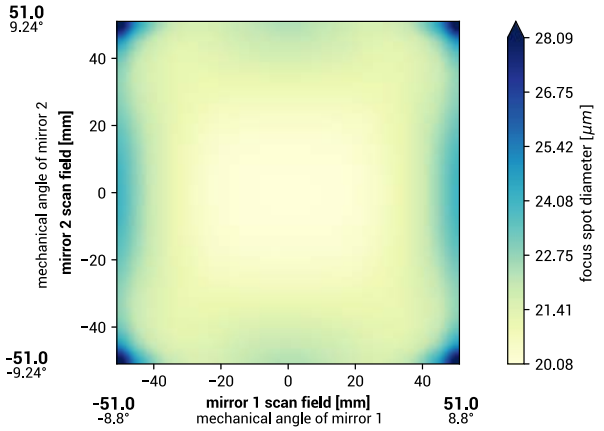


SPOT FOR 532 nm



spot diameter at 86.5 % level for a Gaussian beam (M² = 1) with 12.0 mm diameter at 1/e², clipped at 12.0 mm field size and mirror distances as given above for a two mirror scan system

SPOT FOR 1064 nm



spot diameter at 86.5 % level for a Gaussian beam (M² = 1) with 12.0 mm diameter at 1/e², clipped at 12.0 mm field size and mirror distances as given above for a two mirror scan system

REMARKS

The stated values are based on a vignetting of less than 1 %.
Effective focal length and working distance have tolerance of +/- 1.5 %.
Absorption tolerance +/- 25 %. Absorption may increase. Correct cleaning establishes original condition.

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