

foXXus_NA0.38



Multi-focus objectives of patented design, with protective window

Applications:

- Glass Cutting
- Cutting Sapphire, SiC, other brittle materials
- Microprocessing



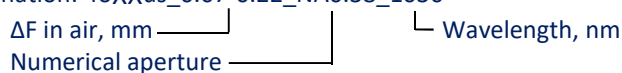
Specifications

Common for foXXus NA0.38 objectives										
Description		Objective lens with multiple foci, with replaceable protective window								
Accessories		<ul style="list-style-type: none"> • Window in Holder L9333.04 • Protective Window D12 @operating wavelength • Spanner Wrench K-20.2-0.4x0.4 • Waveplate in Holder L9333.05 + Window in Holder L9333.06 								
Number of foci		4, 2, 1 (depending on settings, with the same unit)								
Input beam full diameter, mm		12.9								
Numerical aperture (NA)		0.38								
Angular field of view		±1°								
Waist in air 2ω, μm, by TEM ₀₀ beam of Ø9 mm (1/e ²)		1030 nm		2.5						
		515 nm		1.3						
		343 nm		0.9						
Recommended maximum pulse energy		25 mJ at 5 ns								
Diameter, mm		34								
Length, mm		39								
Mounting		C-Mount (1"-32 UN 2A)								
Features										
foXXus_	Spectrum nm	ΔF, μm						EFL mm	WD*, mm	
		air		Glass (x1.5)		Al ₂ O ₃ (x1.76)			Lens	with PW*
		2 foci	4 foci	2 foci	4 foci	2 foci	4 foci			
_0.07-0.22_NA0.38_1030	1020 - 1080							17	9.7	8.7
_0.07-0.22_NA0.38_515/1030	510 - 540 1020 - 1080	72,220	74-72-74	110,338	114-110-114	128,394	133-128-133			
_0.07-0.22_NA0.38_343/515	335 - 365 510 - 540									
_0.01-0.03_NA0.38_1030	1020 - 1080							16.3	12	11
_0.01-0.03_NA0.38_515/1030	510 - 540 1020 - 1080	10,30	10-10-10	15,45	15-15-15	18,54	18-18-18			

* - PW – protective window, WD – working distance.

Comments:

- Depending on settings, the foXXus objectives create 1 or 2, or 4 foci along the optical axis,
- Denomination: foXXus_0.07-0.22_NA0.38_1030



Focusing in multiple foci never was so easy!

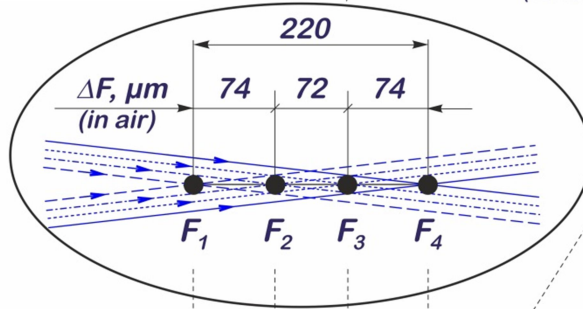
Specifications are subject to change without notice



NA0.38

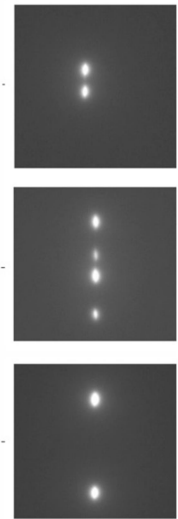
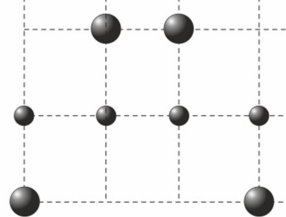
C-Mount
(1"-32 UN 2A)

Microphotographs
of air breakdown
(Courtesy EvanaTech, Lithuania)

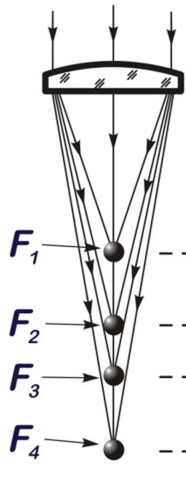


Foci combinations:

- 2-close-foci
- 4-foci
- 2-distant-foci

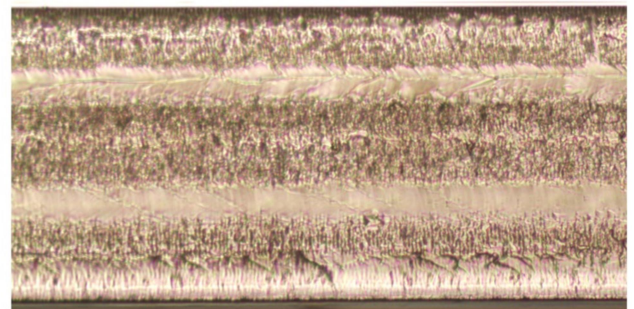
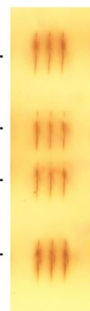


Example of glass cutting
using multiple focusing



4-foci inside glass

(Courtesy WOP/Altechna, Lithuania)



cutting edge