

Infrared optics | **Short wave**

SW 07520

75 mm Short wave infrared lens

Optical specifications

Focal length	mm	75,00
F-Number		2,0
Wavelength	micron	0,9 - 1,7
Average transmission	%	90,0
Circular FOV (1)	deg	15,9
Working Distance	mm	750/∞
Image Diagonal	mm	21,0
Distortion (2)	%	0,50
CTF @ 30 lp/mm (3)	%	30,19
Image Side N.A.		0,243
Back Focal Length	mm	14,1



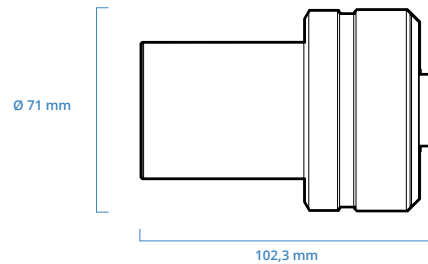
Mechanical specifications

Mount Type (4)	C Custom
Focus Type	Manual
Locking Screw	Yes

1. Based on the listed image diagonal
2. Maximum value at central wavelength
3. Mean value at all the different fields
4. Any custom mount is available at no additional cost. C = Standard C-mount type
5. Given with no mount attached. See layout drawings

Dimensions

Length	mm	102,3
Diameter	mm	71
Weight (5)	g	540

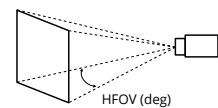


HFOV (deg)	number of pixels				
	160x120	320x240	384x288	640x480	1024x768
50	6,1	12,2			
38	4,7	9,3			
30	3,7	7,4			
28	3,4	6,9			
25	3,1	6,1	7,4	12,2	
17	2,1	4,2		8,3	

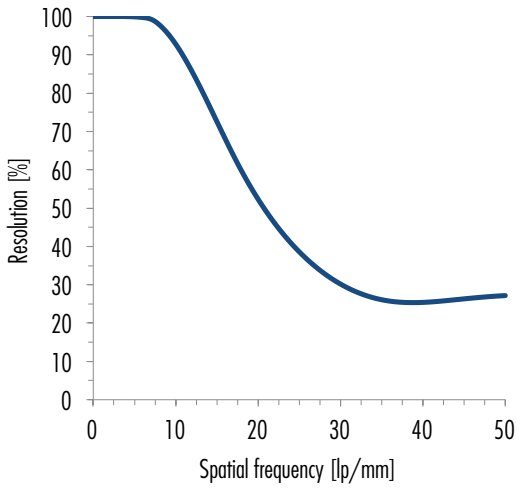
Horizontal fields of view (HFOV), in degrees, for several common detectors. Actual FOV's may vary ±5% from the nominal value.

Legend

- No detector of such form
- Not optimized for this detector. Vignetting may occur at image corners

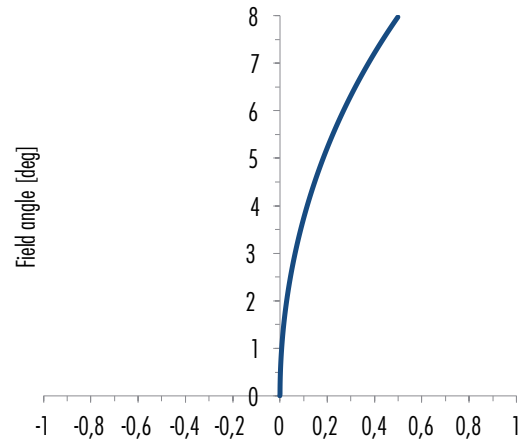


CTF SW07520



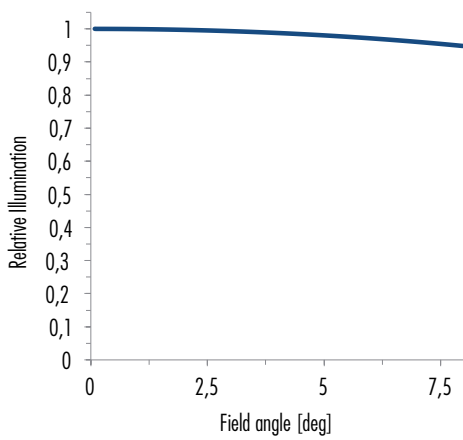
Contrast Transfer Function (CTF) is reported as the mean value at all different fields

Distortion SW07520



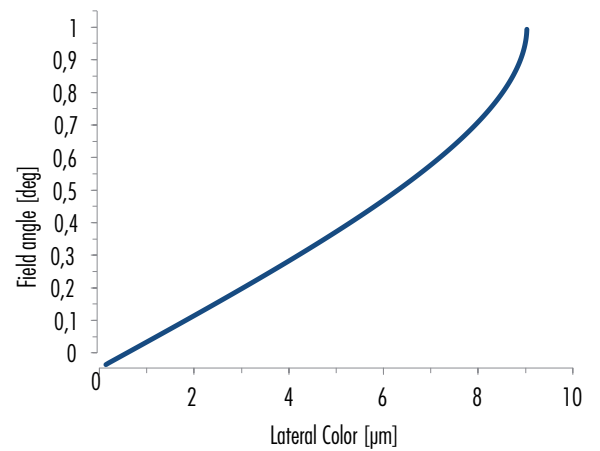
Distortion is shown at central wavelength

Relative Illumination SW07520



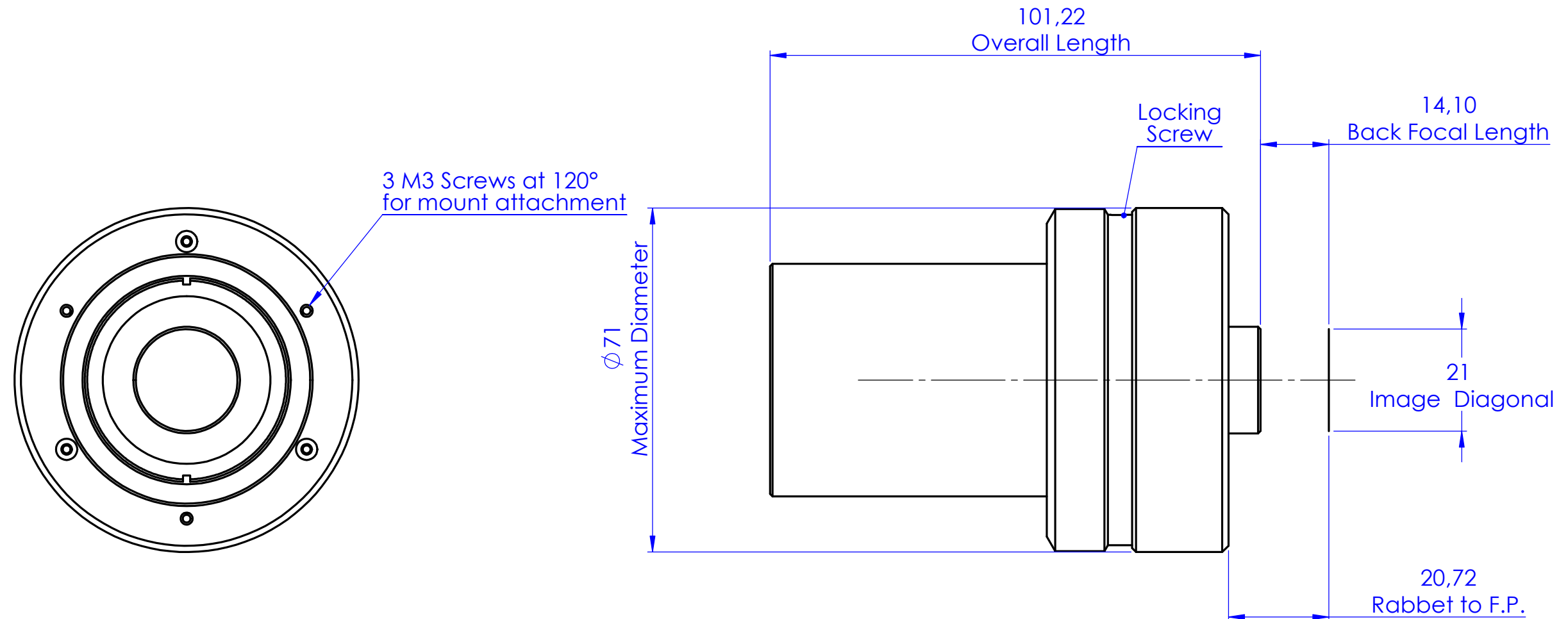
Relative Illumination is shown at central wavelength

Lateral Color SW07520

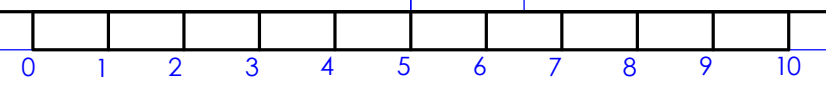


Short wavelength = 0.9 µm, Long wavelength = 1.7 µm

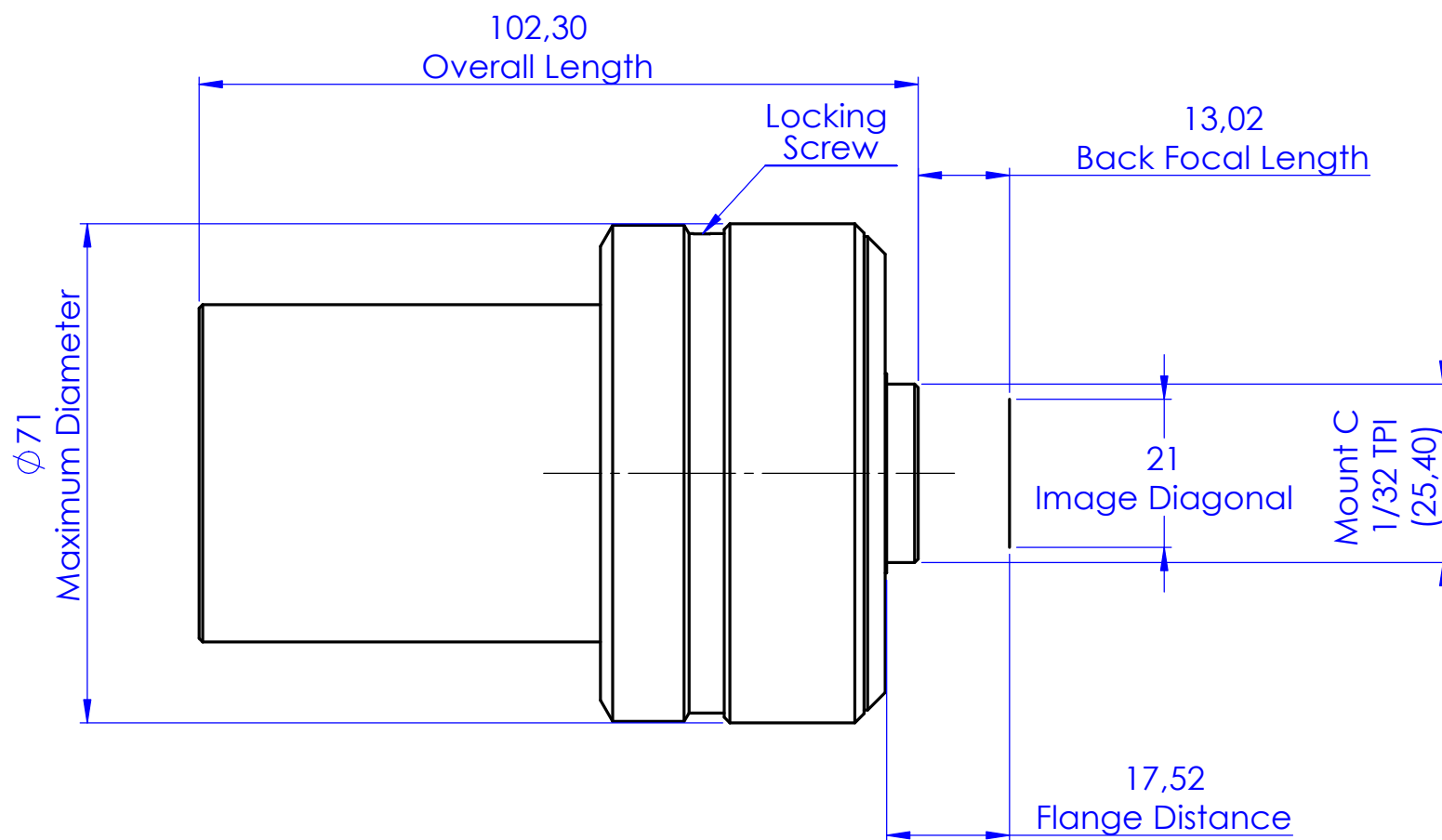
Rev No.	Description	Date	Name
A	Nuovo pezzo	17/07/12	A.Vismara



Material	N.A.			Mass	540 g	Scale	1:1	
Surface treatment	N.A.			Project-Prod.item/Instrument SW07520				
Geometrical tolerance (ISO 2768-2)			Class	K	Description			
Linear tolerance (ISO 2768-2)			Class	m	Undimensioned bevels	1x45°	LAYOUT SW07520 BASE	
0,5	>3±	>6±	>30±	>120	>400±	>1000		Undimensioned radii
±3	6	30	120	±400	1000	±2000		R 0.5
±0.1	±0.1	±0.2	±0.3	±0.5	±0.8	±1.2	±2	
			Date	Name	Drawing No.			
			Designed	17/07/12	A.Vismara	16169-1-A		Sheet
			Drawn	07/08/12	Angelosante	1/2		
Checked			x	C. Sedazzari	Reproduction forbidden without specific authorization			
OPTOE ENGINEERING S.r.l. - 46100 Mantova Italy - Via Cremona, 29/2 - Tel +39 0376263525 - e-mail: info@opto-e.com <mailto:info@opto-e.com> - <http://www.opto-e.com>								



Rev No.	Description	Date	Name
A	Nuovo pezzo	17/07/12	A.Vismara



Material	N.A.		Mass	600 g	Scale	1:1																																		
Surface treatment	N.A.		Project-Prod.item/Instrument																																					
Geometrical tolerance (ISO 2768-2)			Description																																					
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