

inspec.x L 5.6/105 VIS-NIR 0.33x

for large format high-resolution sensors optimized for VIS and NIR sensitivity



The new VIS-NIR lens series from Excelitas sets standards in the field of visual and non-visual inspection. Developed for long line and large area sensors, it offers an incredibly good apochromatic design. Ultra-sharp and high-contrast images can be created at a wide range of different wavelengths from 400 to 1150nm without having to refocus. The diffraction-limited design impresses with extreme performance across the entire object field, so that optimal results can also be achieved at the edges.

Your Benefits

- VIS-NIR scan without refocus
- Apochromatically corrected lens from 400 to 1150nm
- Diffraction limited design
- Ultra high resolution for large area and line sensors
- Great price performance ratio

The new inspec.x VIS-NIR series comes with four different lenses that are optimized for different magnifications and are equipped with the established V-groove interface.

Every version of this new series matches the Excelitas Modular Focus System and scores with flexibility and modularity.

Applications

- PCB inspection
- Print inspection
- Surface inspection
- Waste inspection
- Battery inspection
- Food inspection

Key Features

- No refocusing across VIS and NIR range (apochromatic correction for 400-1150nm)
- Perfect match with 5µm Pixel size
- Flexible mounting system for almost any image processing camera
- Full metal barrel with lockable aperture

Mechanical accessories, including helical focus mounts, adapters and extension tubes are described @ excelitas.com/product/linos-machine-vision-accessories

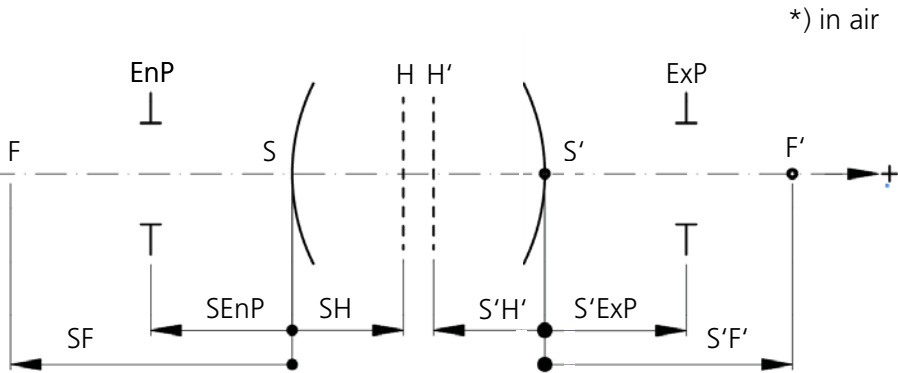


Specifications

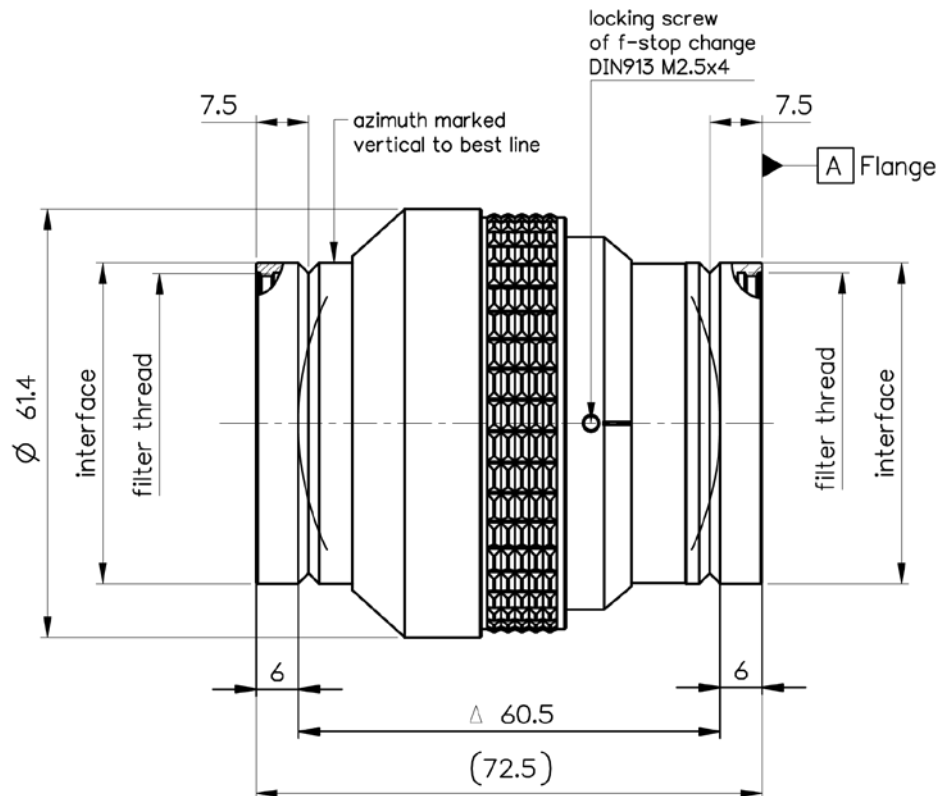
Part No.	0703-085-000-30
Focal length [mm]	105.4
f-stop	5.6
f-stop range	5.6 ... 22
f-stop lockable	yes, locking screw
Numerical aperture (object/image)	0.04/0.13
Image circle max. [mm]	82
Magnification optimized	0.33
Rec. magnification range	0.25 ... 0.45
Rec. working distance [mm]	300 ... 488
Spectral range [nm]	400 - 1150
Azimuth marked	yes
Interface	V-groove ø46h7
Filter thread	M43 x 0.75
Length [mm]	72.5
Diameter [mm]	61.4
Weight [g]	370
Storage temperature [°C]	-25 ... +70
Working temperature [°C]	0 ... +50
Optical number	7608-9045
Sensor cover glass (included)	0.76mm D263

Optical data

Part No. 0703-085-000-30		
SF [mm]	-72.0	
S'F' *) [mm]	70.5	
HH' *) [mm]	-7.6	
SH *) [mm]	33.4	
S'H' [mm]	-34.9	
SEnP [mm]	41.9	
S'Exp *) [mm]	-27.0	
f-stop	ø EnP	ø ExP
5.6	19.2	17.8
8	31.4	12.4
11	9.8	9
16	6.7	6.2
22	4.9	4.5



Dimensions

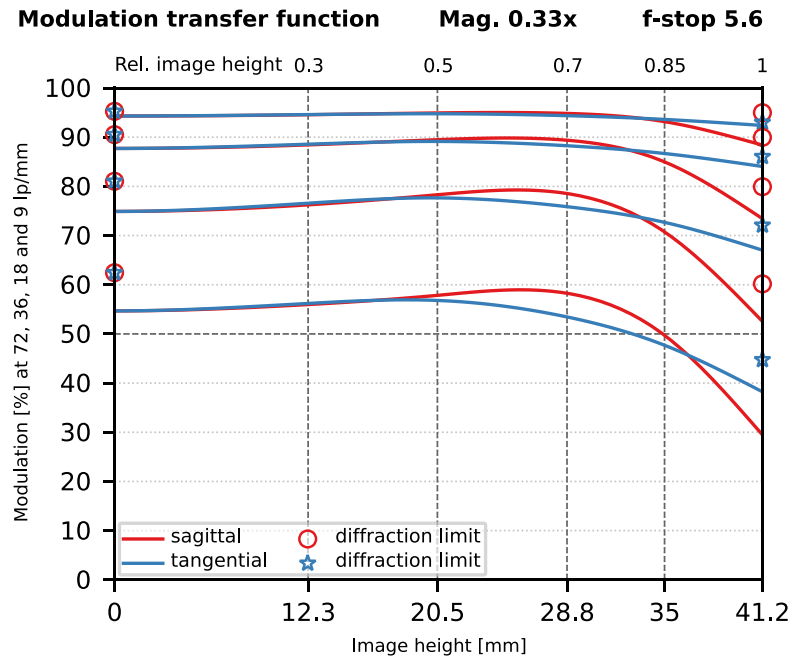


For further information about our inspec.x L series, please scan or click the QR-Code.

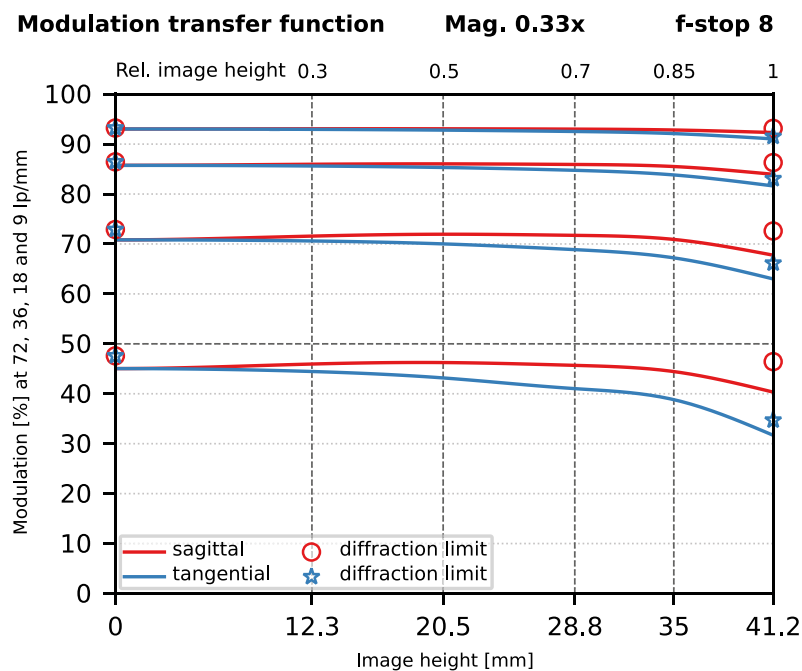


Optical Performance

MTF at ratio 0.33x f/5.6

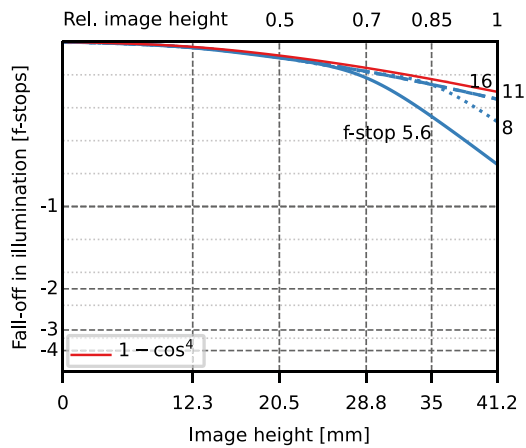


MTF at ratio 0.33x f/8.0

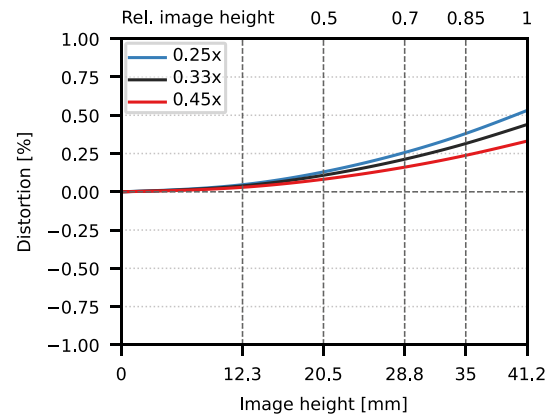


All spatial frequencies [lp/mm], image heights [mm] and magnifications are related to sensor side.

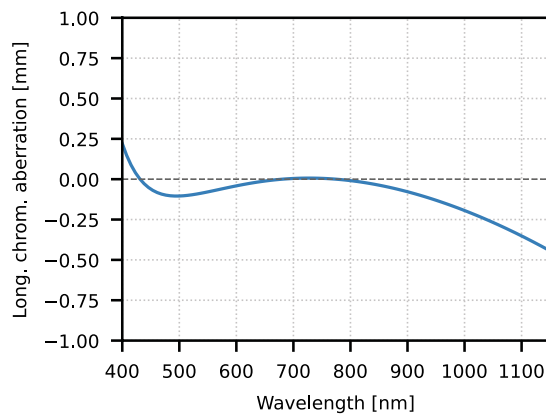
Fall-off in illumination Mag. 0.33x



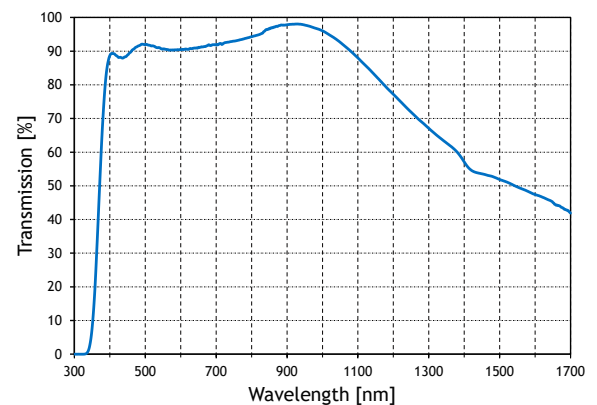
Distortion Mag. 0.25x ... 0.45x



Long. chrom. aberration Mag. 0.33x



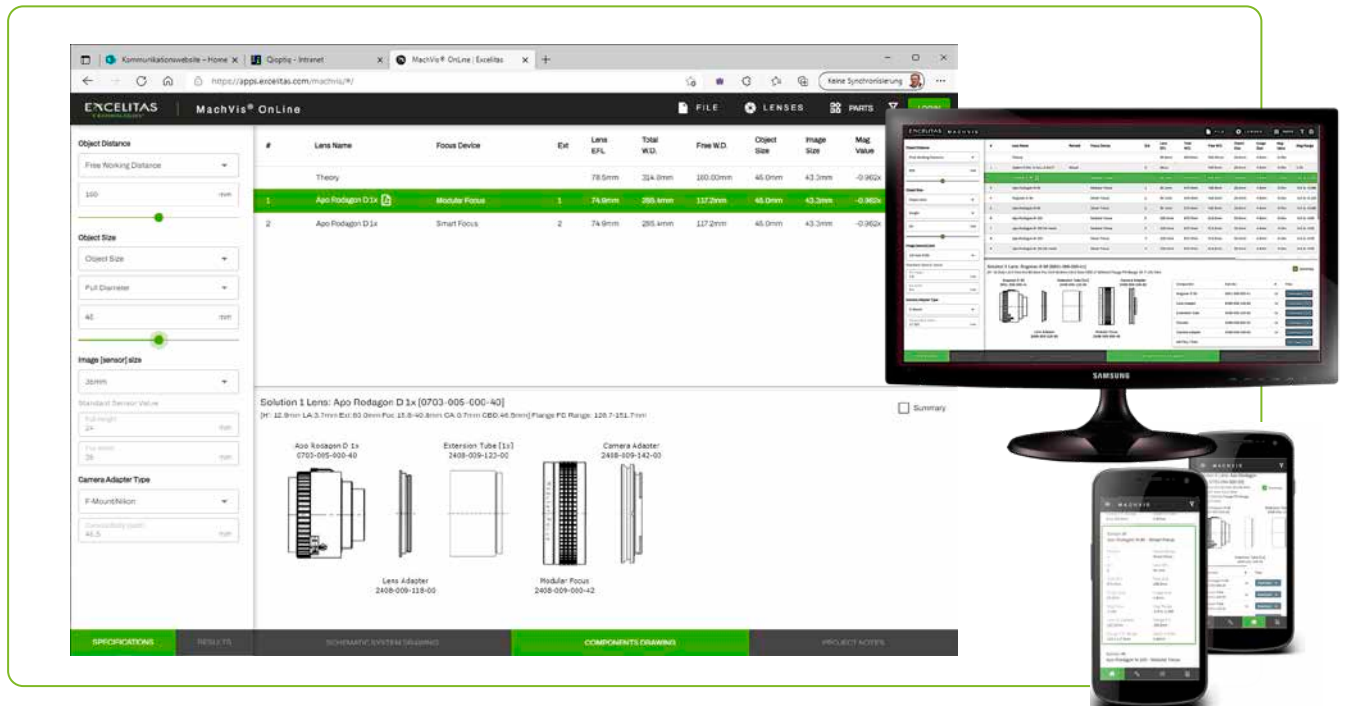
Transmission - inspec.x L 5.6/105 VIS/NIR 0.33x



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MachVis

Lens Selection and Configurator Software



MachVis:
Access for FREE!



For further information about our Lens Selection Software MachVis, please scan or click the QR-Code.

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