excelitas® | LINOS®

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.

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.

Your Benefits

- VIS-NIR correction without refocus
- Apo-chromatically corrected
- Ready for Mulit- and Hyperspectral Imaging
- SWIR Option
- Diffraction limited design
- Ultra-high resolution for large area and line sensors

Applications

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

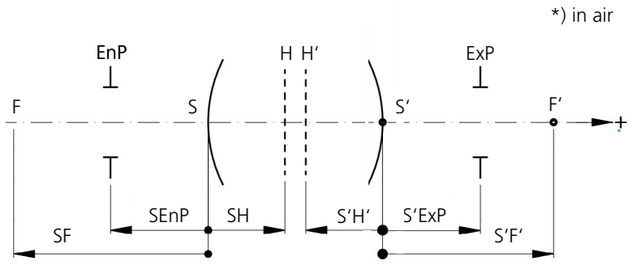
TECHNICAL SPECIFICATIONS

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
Design includes sensor cover glass	yes, 0.76mm D263

Optical data

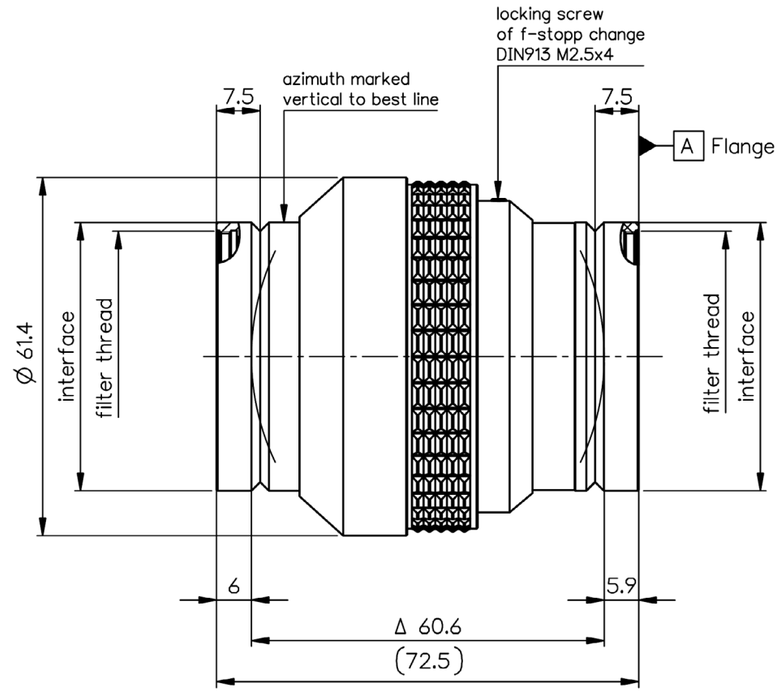
PART NO.	0703-085-000-30	
SF [mm]	-72.0	
S'F' *) [mm]	70.5	
HH' *) [mm]	-7.6	
SH *) [mm]	33.4	
S'H' [mm]	-34.9	
SEnP [mm]	41.9	
S'Exp *) [mm]	-27.0	
F-STOP	**Ø ENP**	**Ø EXP**
5.6	19.2	17.8
8	13.4	12.4
11	9.8	9.0
16	6.7	6.2
22	4.9	4.5

Schematic diagramm



all dimensions in mm

OUTLINE DRAWING



all dimensions in mm

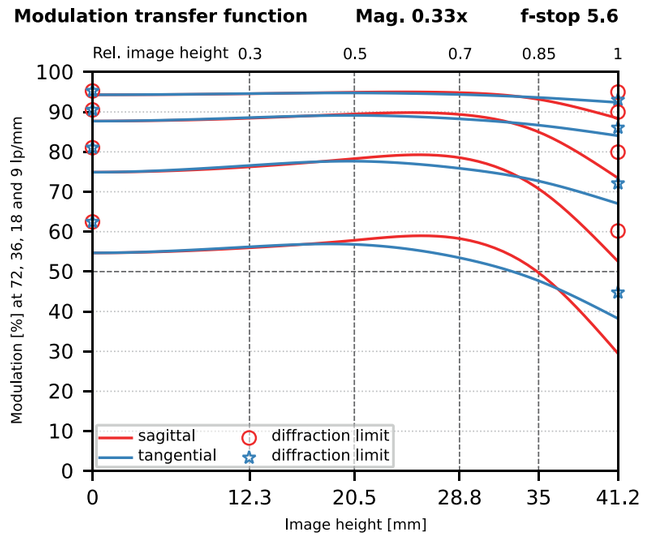
For further information about our inspec.x L series, please scan or click the QR-Code.

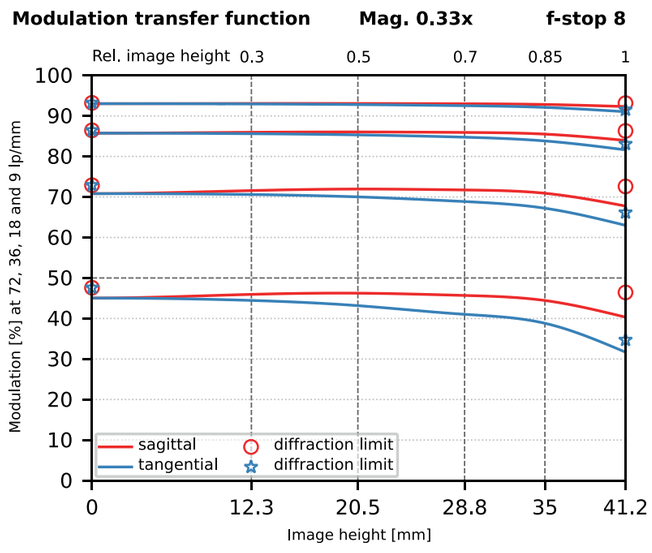
inspection@excelitas.com excelitas.com

SPECTRAL DISTRIBUTION

Wavelength [nm]	438	474	510	534	558	582	606	642	678
Weigth [%]	2.0	10.8	50.3	90.5	99.8	84.9	55.4	16.0	1.9

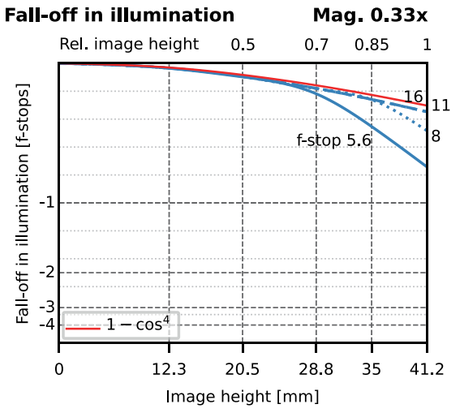
OPTICAL PERFORMANCE

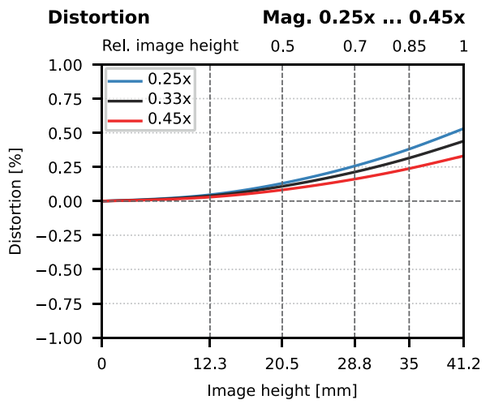


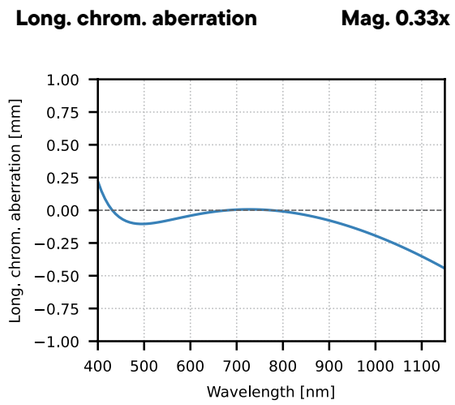


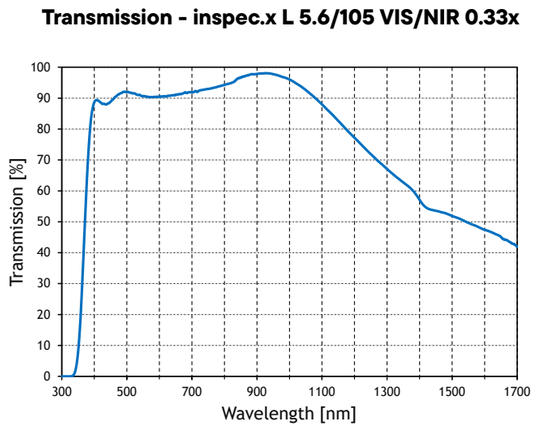
All spatial frequencies [lp/mm], image heights [mm] and magnifications are related to sensor side.

OPTICAL PERFORMANCE









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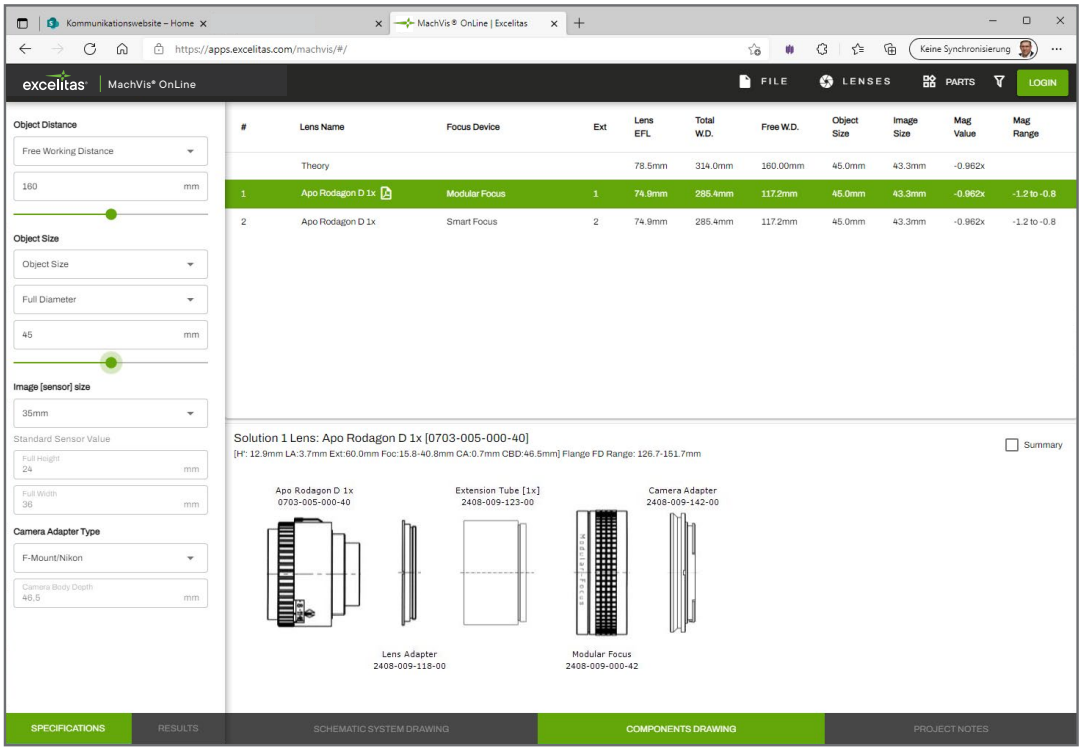
Mechanical accessories, including helical focus mounts, adapters and extension tubes are described @ excelitas.com/product/linos-machine-vision-accessories

MACHVIS

Lens Selection and Configurator Software

ACCESS FOR FREE!

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



MachVis Online: Example of the user face