

3 Mega-Pixel Lens

Xenoplan 1.4/17-0903

In accordance with the sensitivity of modern 2 / 3" CCD and CMOS sensors, the 3 megapixel lenses are corrected and broadband-coated for the spectral range of 400 – 1000 nm (VIS + NIR). Even under production and / or extreme conditions, the robust mechanical design with lockable focus and iris setting mechanism guarantees reliable continuous use in which the set optical parameters remain in place.



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Key Features

- High-resolution optics
- Highest optical imaging performance even with smallest pixel sizes
- Broadband coating (400 - 1000 nm)
- Compact and low weight
- Vibration insensitivity for stable imaging performance
- Focus and iris setting lockable

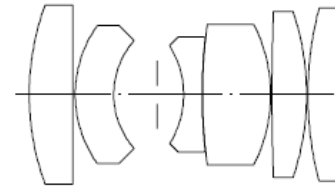
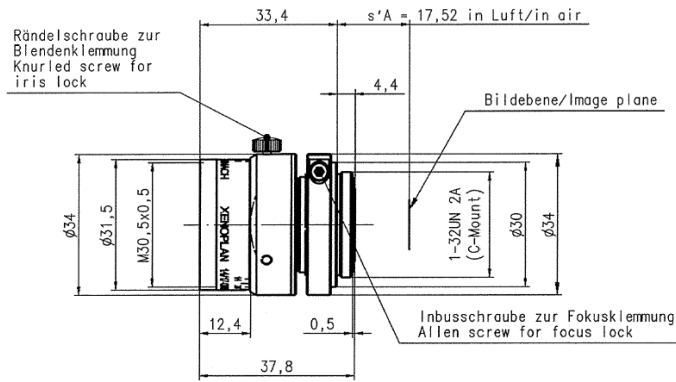
Applications

- Machine Vision and other imaging applications
- 3D measurement
- Traffic
- Medical
- Robot vision
- Food processing

Technical Specifications

F-number	1.4
Focal length	17.6 mm
Image circle	11 mm
Transmission	400 - 1000 nm
Interface	C-Mount
Weight	85 gr.
Filter tread	M30.5 x 0.5
Code no.	1001957

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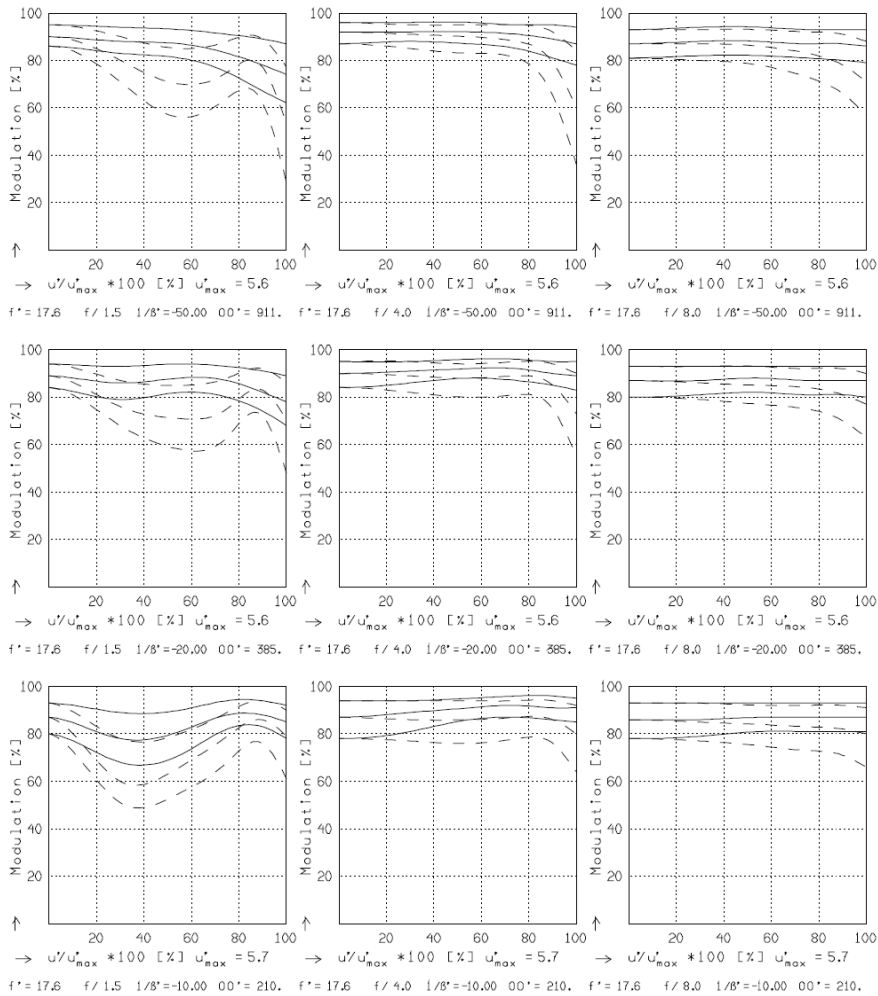
f^*	= 17,6 mm	β_p	= 2,975
s_F	= 6,1 mm	s_{EP}	= 12,0 mm
$s_{F'}$	= 13,2 mm	$s_{A'P}$	= -39,1 mm
HH'	= -3,2 mm	Σd	= 24,9 mm

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MODULATION with reference to the relative image height

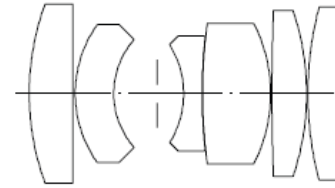
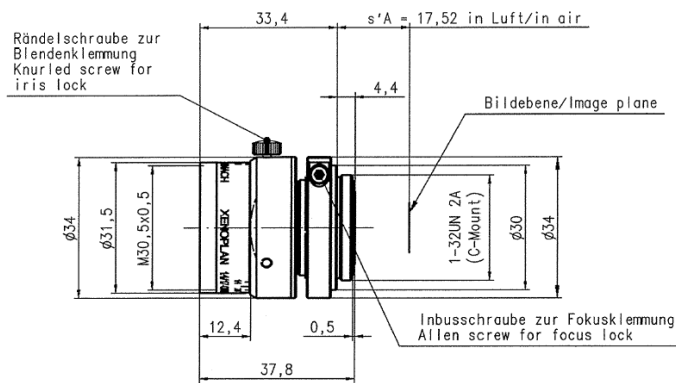
Wavelength λ	[nm]	555	655	605	505	455	405
Spectral weighting	[%]	19,6	23,7	22,2	15,7	12,1	6,7
Spatial frequency R	[1/mm]	10	20	30			
Format	[mm X mm]	6,6	X	8,8			
Diagonal $2u'$	[mm]	11,0					

radial —
tangential - -



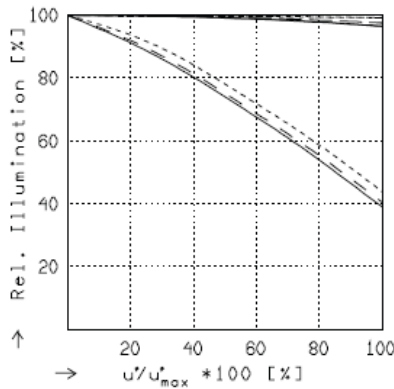
Focusing : MTF_{max} at f / 1.4 . R = 30 1/mm. $u'/u'_{nox} = 0$

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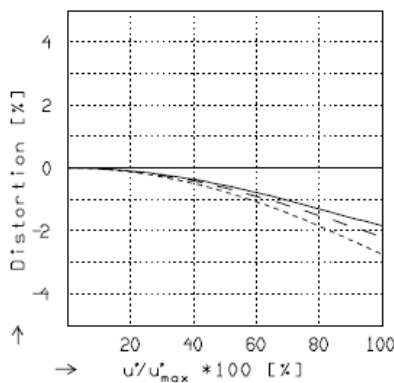
f^*	= 17.6 mm	β_p^*	= 2.975
s_F	= 6.1 mm	s_{EP}	= 12.0 mm
$s_{F'}^*$	= 13.2 mm	s_{AP}^*	= -39.1 mm
HH^*	= -3.2 mm	Σd	= 24.9 mm



RELATIVE ILLUMINATION

The relative illumination is shown for the given focal distances or magnifications.

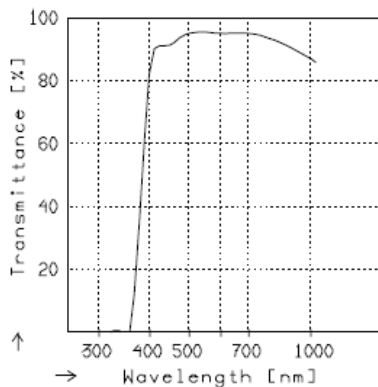
	$f / 1.5$	$f / 4.0$	$f / 8.0$
—	$\beta' = -0.0200$	$u'_{max} = 5.5$	$00' = 911.$
- -	$\beta' = -0.0500$	$u'_{max} = 5.5$	$00' = 384.$
- · -	$\beta' = -0.1000$	$u'_{max} = 5.5$	$00' = 209.$



DISTORTION

Distortion is shown for the given focal distances or magnifications. Positive values indicate pincushion distortion and negative values barrel distortion.

—	$\beta' = -0.0200$	$u'_{max} = 5.5$	$00' = 911.$
- -	$\beta' = -0.0500$	$u'_{max} = 5.5$	$00' = 384.$
- · -	$\beta' = -0.1000$	$u'_{max} = 5.5$	$00' = 209.$



TRANSMITTANCE

Relative spectral transmittance is shown with reference to wavelength.