

3 Mega-Pixel Lens

Xenoplan 1.4/23-0902

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.



Xenoplan 1.4/23

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	22.5 mm
Image circle	11 mm
Transmission	400 - 1000 nm
Interface	C-Mount
Weight	94 gr.
Filter tread	M30.5 x 0.5
Code no.	1001917

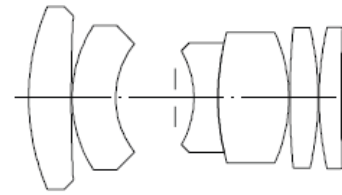
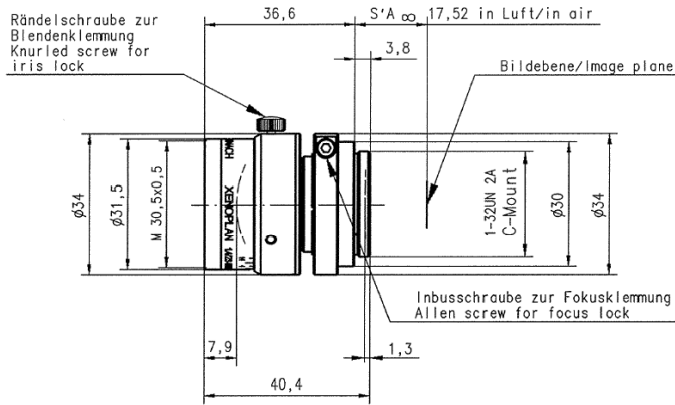
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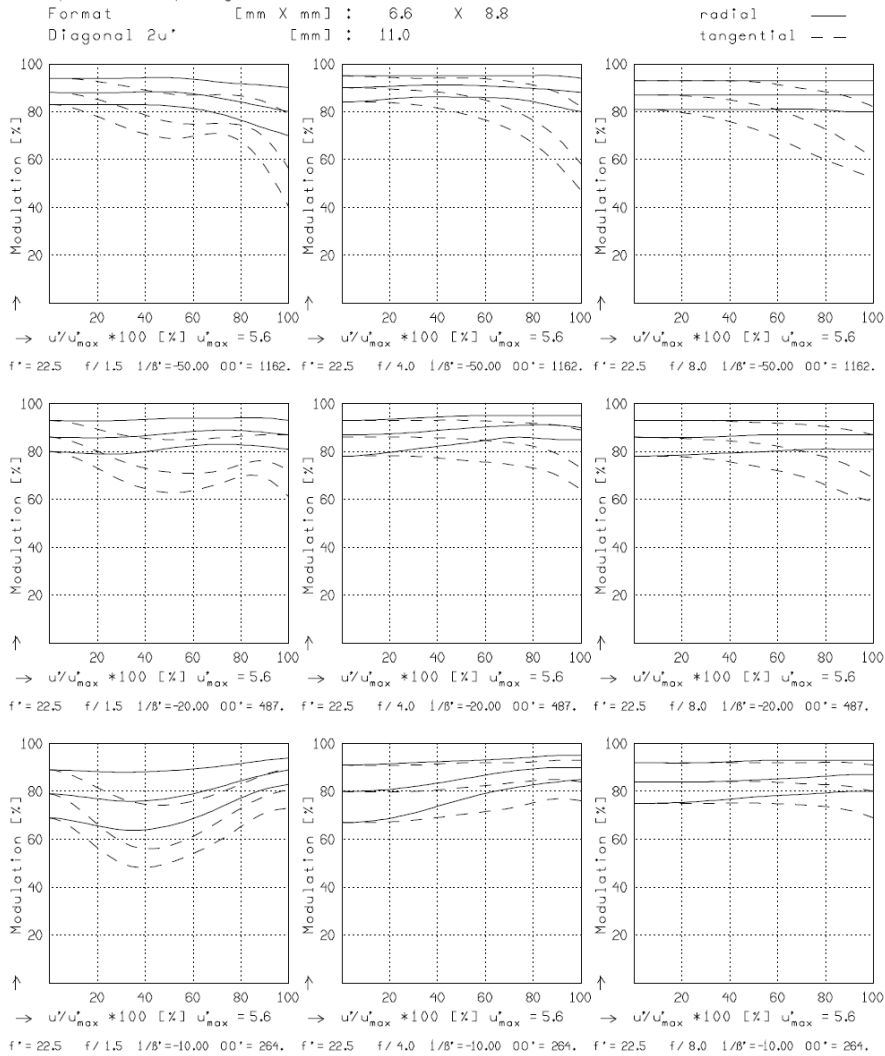
XENOPLAN 1.4/23MM

f^* = 22.5 mm	β_p^* = 2.271
s_F = 10.2 mm	s_{EP} = 20.1 mm
s_{F^*} = 15.0 mm	s_{A^*P} = -36.1 mm
HH^* = -9.3 mm	Σd = 30.9 mm

XENOPLAN 1.4/23MM

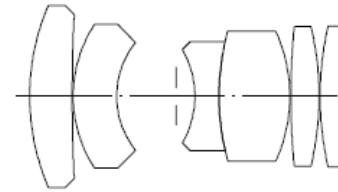
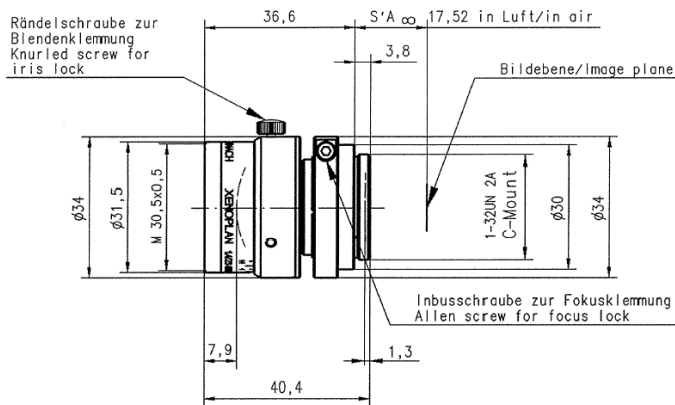
MODULATION with reference to the relative image height

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					



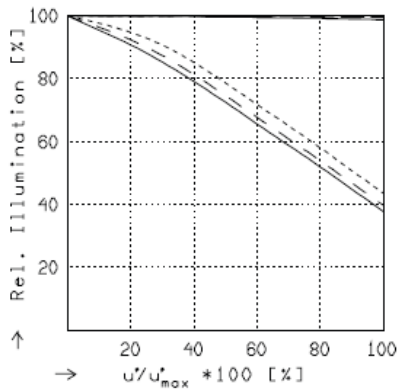
Focusing : MTF_{max} at $f / 1.4$, $R = 30$ 1/mm, $u/u_{max} = 0$

Xenoplan 1.4/23



XENOPLAN 1.4/23MM

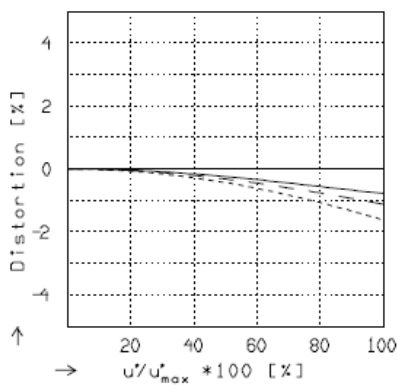
f' = 22,5 mm	β'_p = 2,271
s_F = 10,2 mm	s_{EP} = 20,1 mm
$s_{F'}$ = 15,0 mm	s'_{AP} = -36,1 mm
HH' = -9,3 mm	Σd = 30,9 mm



RELATIVE ILLUMINATION

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

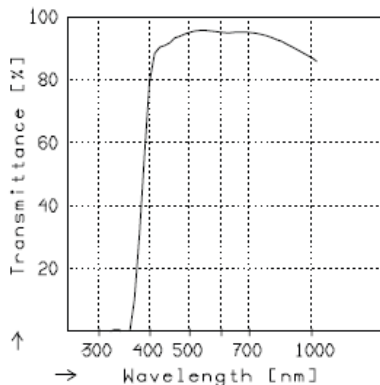
	$f / 1.5$	$f / 4.0$	$f / 8.0$
—	$\beta' = -0.0200$	$u'_{max} = 5.5$	$00' = 1162.$
- -	$\beta' = -0.0500$	$u'_{max} = 5.5$	$00' = 487.$
----	$\beta' = -0.1000$	$u'_{max} = 5.5$	$00' = 263.$



DISTORTION

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

—	$\beta' = -0.0200$	$u'_{max} = 5.5$	$00' = 1162.$
- -	$\beta' = -0.0500$	$u'_{max} = 5.5$	$00' = 487.$
----	$\beta' = -0.1000$	$u'_{max} = 5.5$	$00' = 263.$



TRANSMITTANCE

Relative spectral transmittance is shown with reference to wavelength.