

3 Mega-Pixel Lens

Cinegon 1.4/12-0906

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

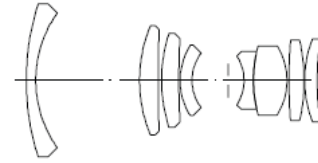
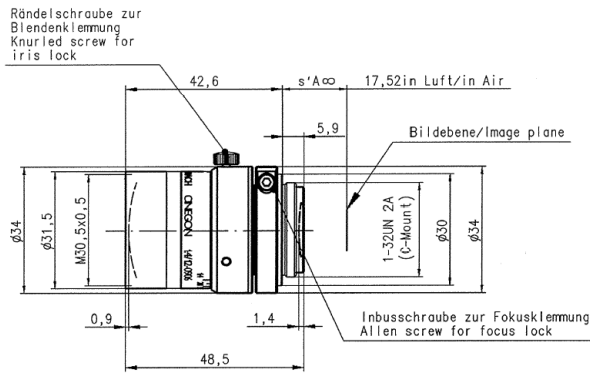
Applications

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

Technical Specifications

F-number	1.4
Focal length	12.7 mm
Image circle	11 mm
Transmission	400 - 1000 nm
Interface	C-Mount
Weight	99 gr.
Filter tread	M30.5 x 0.5
Code no.	1001951

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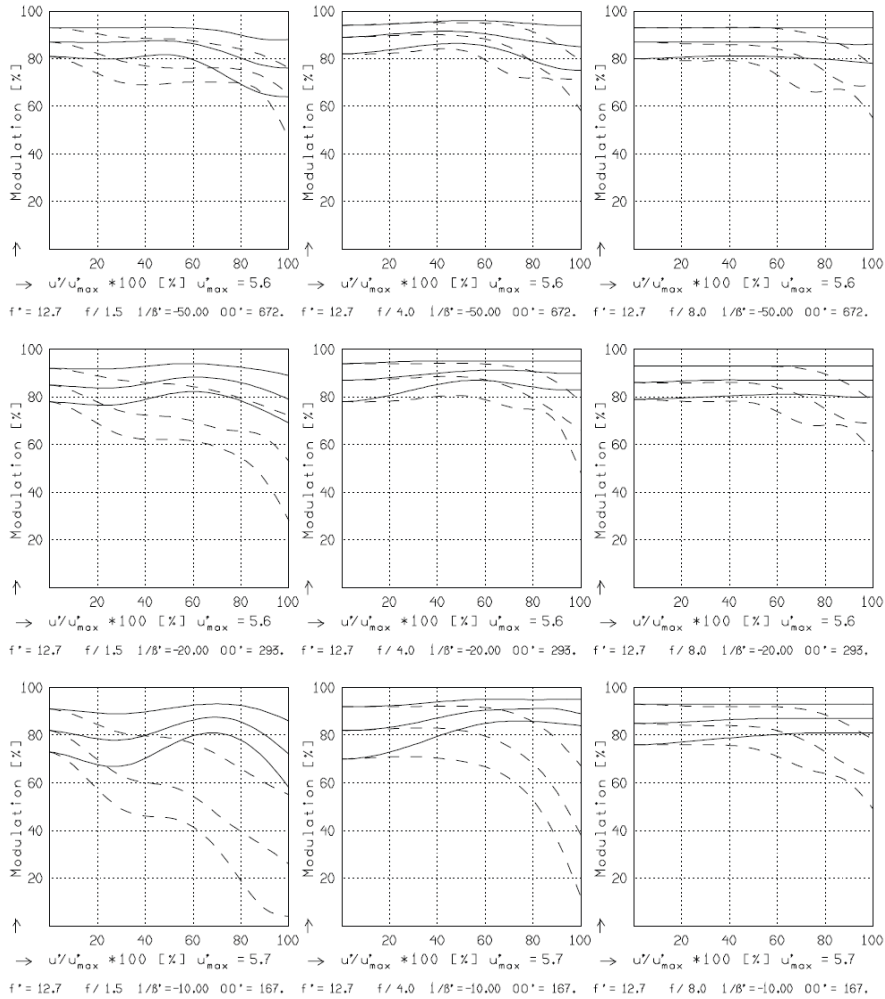
f'	= 12.7 mm	β_p	= 4.217
s_F	= 20.1 mm	s_{EP}	= 23.1 mm
$s_{F'}$	= 12.7 mm	$s_{A'P}$	= -40.7 mm
HH'	= 13.5 mm	Σd	= 46.3 mm

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MODULATION with reference to the relative image height

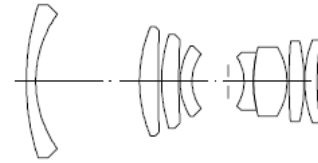
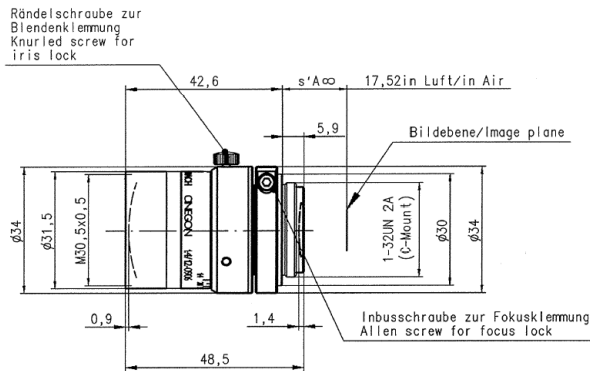
Wavelength λ	[nm]	555	655	605	555	455	405
Spectral weighting	[%]	19.6	23.7	22.2	15.7	12.1	6.7
Spatial frequency R	[1/mm]	10	20	30			
Format	[mm X mm]	6.6	X	8.8			
Diagonal $2u'$	[mm]	11.0					

radial —
tangential - - -



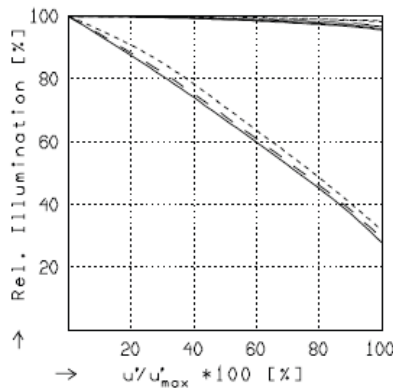
Focusing : MTF_{max} at $f / 1.4$. $R = 30$ 1/mm. $u/u'_{max} = 0$

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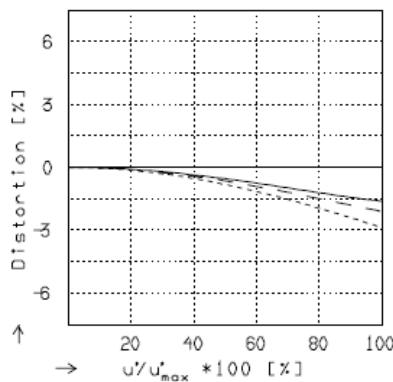
f' = 12.7 mm	β'_p = 4.217
s_F = 20.1 mm	s_{EP} = 23.1 mm
$s_{F'}$ = 12.7 mm	s_{AP} = -40.7 mm
HH' = 13.5 mm	Σd = 46.3 mm



RELATIVE ILLUMINATION

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

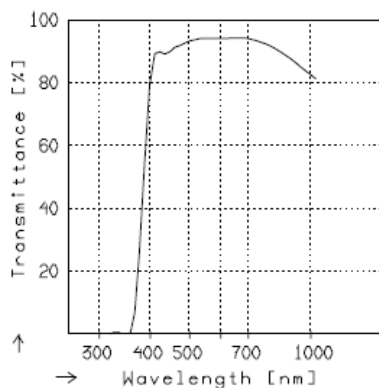
	$f / 1.5$	$f / 4.0$	$f / 8.0$
— $\beta' = -0.0200$	$u'_{max} = 5.5$	$00' = 672.$	
- - $\beta' = -0.0500$	$u'_{max} = 5.5$	$00' = 293.$	
.... $\beta' = -0.1000$	$u'_{max} = 5.5$	$00' = 167.$	



DISTORTION

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

— $\beta' = -0.0200$	$u'_{max} = 5.4$	$00' = 672.$
- - $\beta' = -0.0500$	$u'_{max} = 5.5$	$00' = 293.$
.... $\beta' = -0.1000$	$u'_{max} = 5.5$	$00' = 167.$



TRANSMITTANCE

Relative spectral transmittance is shown with reference to wavelength.