

3 Mega-Pixel Lens

Tele-Xenar 2.2/70-0902

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.



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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	2.2
Focal length	70.5 mm
Image circle	11 mm
Transmission	400 - 1000 nm
Interface	C-Mount
Weight	200 gr.
Filter tread	M40.5 x 0.5
Code no.	1014593

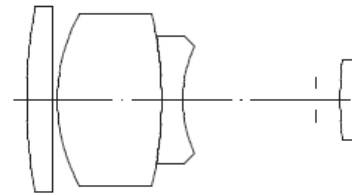
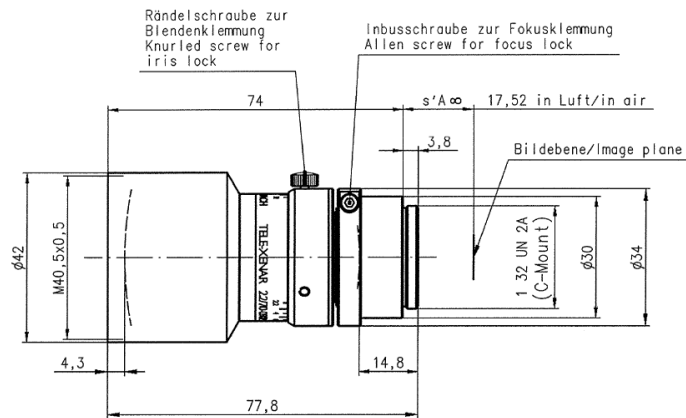
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TXR 2.2/70

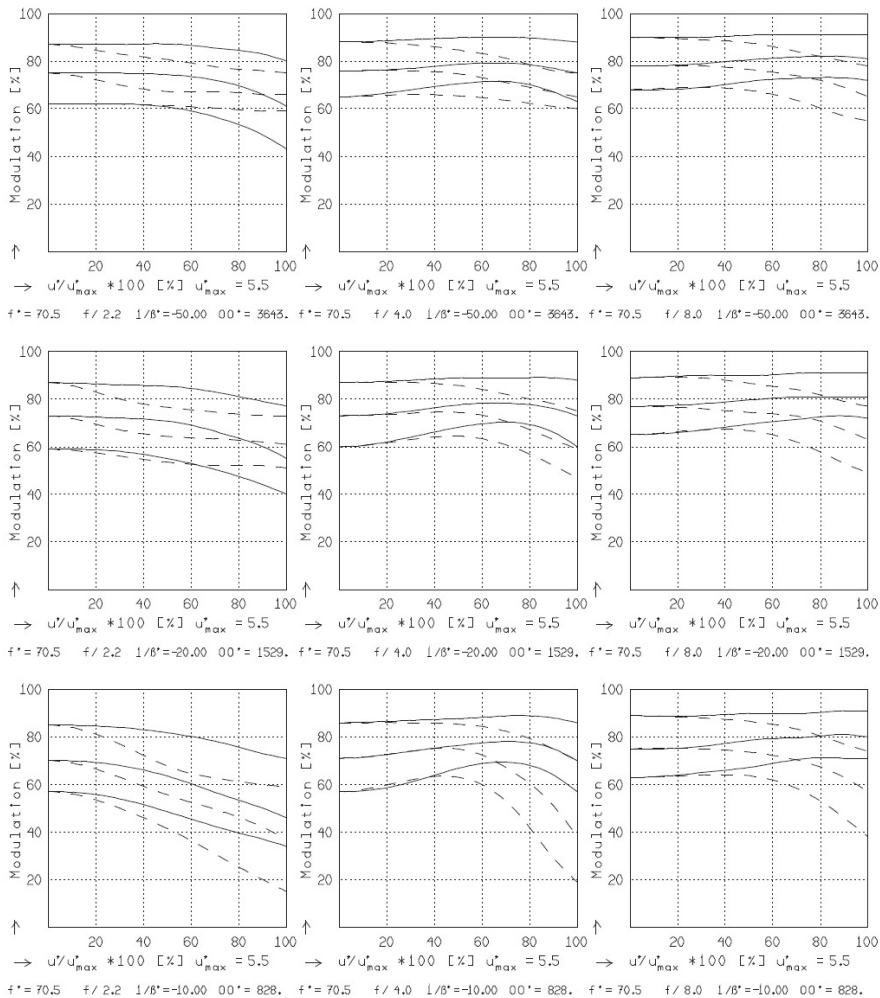
f'	= 70.5 mm	β_p'	= 0.494
s_F	= -27.8 mm	s_{EP}	= 115.0 mm
$s_{F'}$	= 28.5 mm	$s_{\lambda P}$	= -6.3 mm
HH'	= -26.0 mm	Σd	= 58.8 mm

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MODULATION with reference to the relative image height

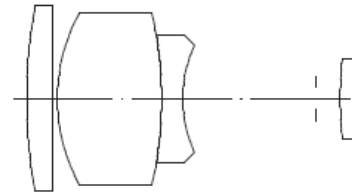
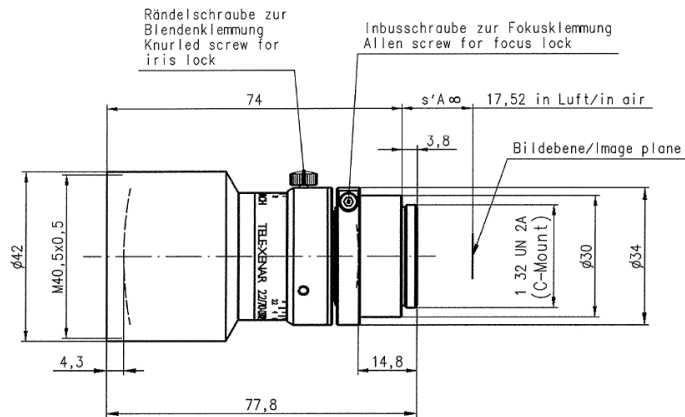
Wavelength λ	[nm] :	555	655	605	505	455	405
Spectral weighting	[%] :	19.6	23.7	22.2	15.7	12.1	6.7
Spatial frequency R	[1/mm] :	10	20	30			
Format	[mm X mm] :	6.6	X	8.8			
Diagonal $2u'$	[mm] :	11.0					

radial —
tangential - -



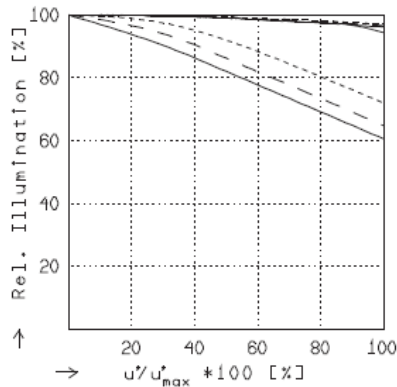
Focusing : MTF_{max} at $f / 2.2$, $R = 30$ 1/mm. $u'/u'_{max} = 0$

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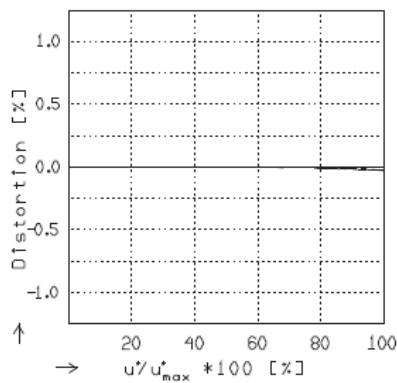
$f' = 70.5 \text{ mm}$ $\beta_p' = 0.494$
 $s_F = -27.8 \text{ mm}$ $s_{EP} = 115.0 \text{ mm}$
 $s_{F'} = 28.5 \text{ mm}$ $s_{AP} = -6.3 \text{ mm}$
 $HH' = -26.0 \text{ mm}$ $\Sigma d = 58.8 \text{ mm}$



RELATIVE ILLUMINATION

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

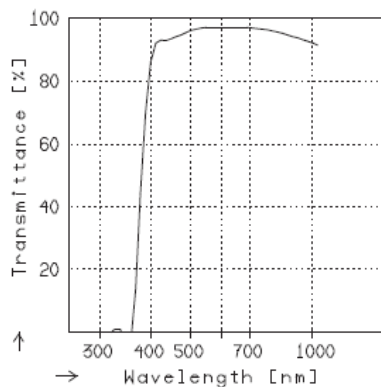
	$f / 2.2$	$f / 4.0$	$f / 8.0$
—	$\beta' = -0.0200$	$u'_{max} = 5.5$	$00' = 3642.$
- -	$\beta' = -0.0500$	$u'_{max} = 5.5$	$00' = 1529.$
----	$\beta' = -0.1000$	$u'_{max} = 5.5$	$00' = 827.$



DISTORTION

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

—	$\beta' = -0.0200$	$u'_{max} = 5.5$	$00' = 3642.$
- -	$\beta' = -0.0500$	$u'_{max} = 5.5$	$00' = 1529.$
----	$\beta' = -0.1000$	$u'_{max} = 5.5$	$00' = 827.$



TRANSMITTANCE

Relative spectral transmittance is shown with reference to wavelength.