

Anti-Shading lenses

Apo-Xenoplan 2.0/35

These high-resolution, high-speed lenses are optimized for the use of 4 and 8 megapixel 1.3" sensors with micro-lenses on the sensor surface. The special optical design prevents unwanted shading on the sensor. This makes it much easier to combine a homogeneous luminance distribution with high imaging performance. The image circles are very large for C-Mount lenses. With a 1.3" sensor, the relatively short focal lengths allow a large coverage range at a short working distance. The lenses are also broadband coated and can be used in the visible range 400 – 700 nm or the near infrared range 700 – 1000 nm.



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Key Features

- Anti-shading for sensor sizes up to 1.3"(image circle 24 mm)
- Designed for 4 and 8 Mpix sensors with micro-lenses
- High resolution optics 400 - 700 nm (VIS) / 700 - 1000 nm (NIR)
- Very high MTF across the entire sensor
- Robust mechanics for industrial environment
- Compact and low weight
- Focus and iris setting lockable

Applications

- Machine Vision and other imaging applications
- 3D measurement
- Traffic
- Etc.

Technical Specifications

F-number	2.0
Focal length	35.1 mm
Image circle	24 mm
Transmission	400 - 1000 nm
Interface	C-Mount
Weight	160 gr.
Option	Optical filter

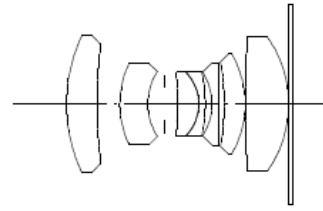
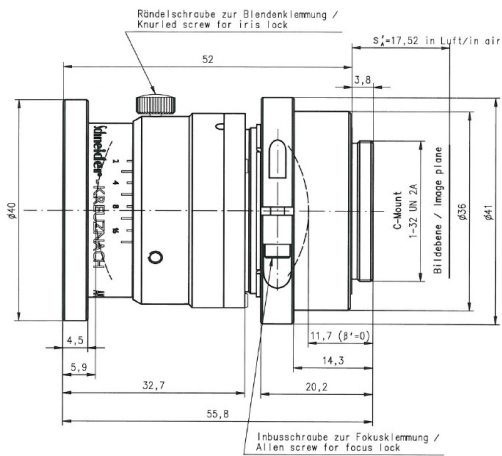
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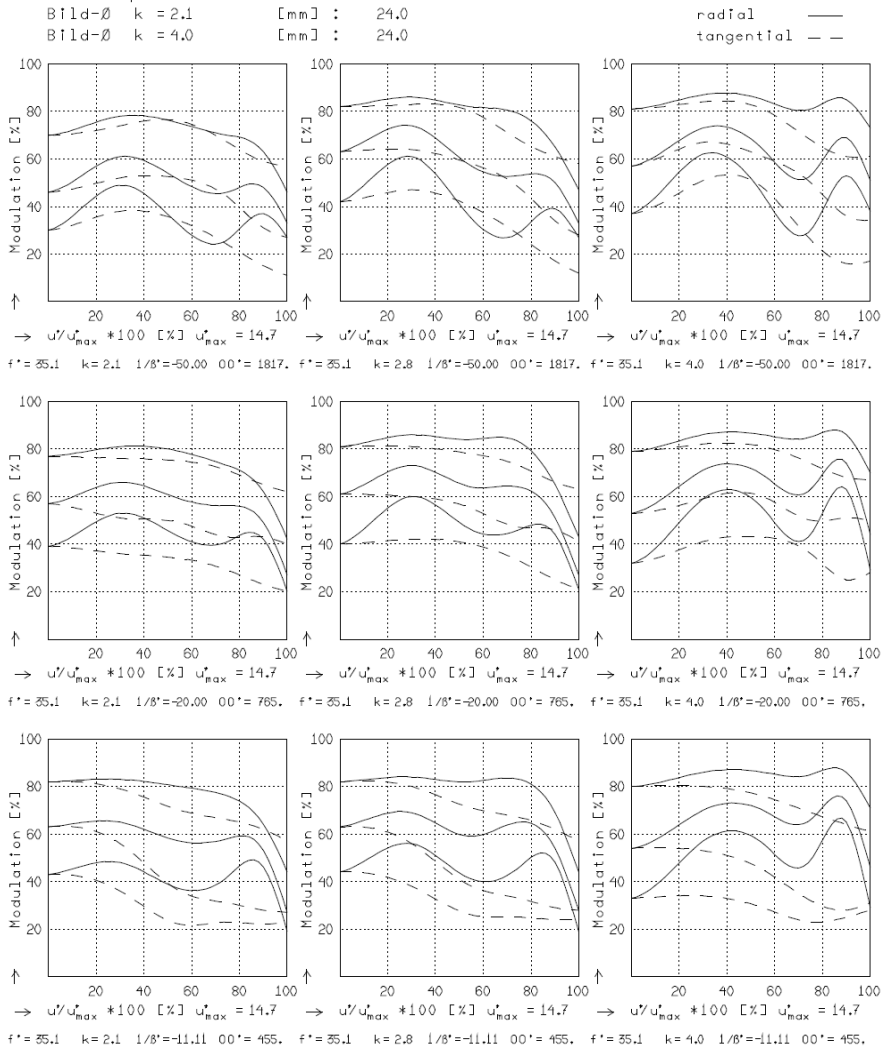
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$f' = 35.1 \text{ mm}$ $\beta'_p = 1.991$
 $s_F = 1.6 \text{ mm}$ $s_{EP} = 19.2 \text{ mm}$
 $s_{F^*} = 24.7 \text{ mm}$ $s_{AP} = -45.2 \text{ mm}$
 $HH' = -8.1 \text{ mm}$ $\Sigma d = 39.0 \text{ mm}$

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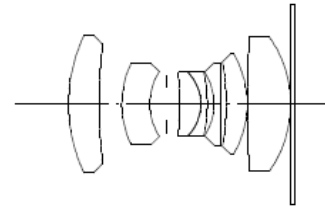
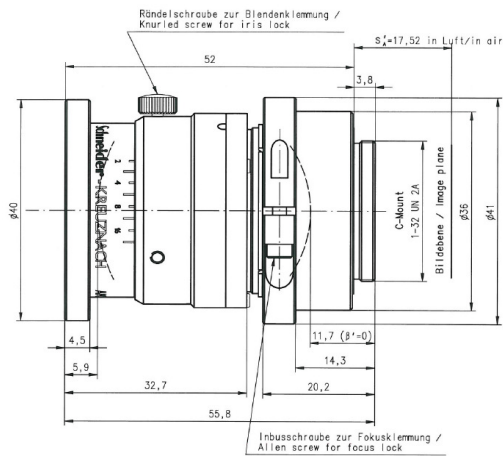
MODULATION als Funktion der relativen Bildgröße

Wellenlänge λ [nm] :	555	655	605	505	455	405
Spektrale Gewichtung [%] :	19.6	23.7	22.2	15.7	12.1	6.7
Ortsfrequenz R [1/mm] :	25	50	75			
Bild- \emptyset k = 2.1 [mm] :	24.0					
Bild- \emptyset k = 4.0 [mm] :	24.0					



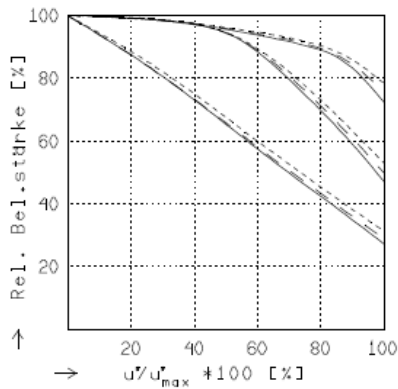
Fokussierung MTF_{max} bei k = 2.0 . R = 75 1/mm. $u/u'_{max} = 0$

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f'	= 35.1 mm	β'_p	= 1.991
s_F	= 1.6 mm	s_{EP}	= 19.2 mm
$s_{F'}$	= 24.7 mm	s_{AP}	= -45.2 mm
HH'	= -8.1 mm	Σd	= 39.0 mm

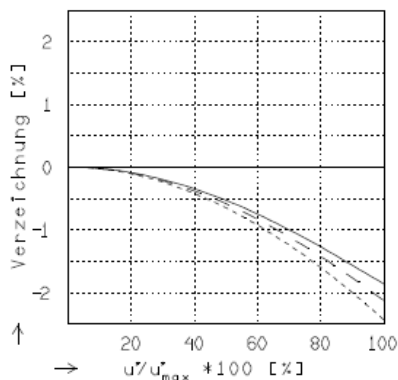


RELATIVE BELEUCHTUNGSSTÄRKE

Die relative Beleuchtungsstärke ist für die angegebenen Brennweiten oder Abbildungsmaßstäbe für die folgenden Blendenzahlen dargestellt.

$k = 2.1$ $k = 2.8$ $k = 4.0$

—	$\beta' = -0.0200$	$u_{max}^* = 14.4$	$00' = 1817.$
- -	$\beta' = -0.0500$	$u_{max}^* = 14.3$	$00' = 765.$
----	$\beta' = -0.0900$	$u_{max}^* = 14.3$	$00' = 455.$

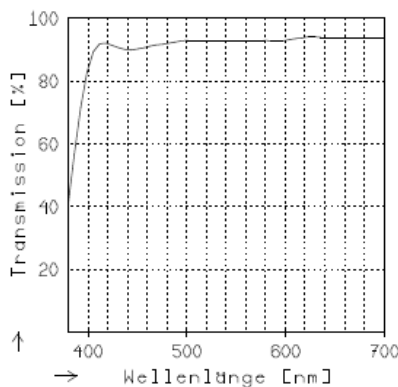


VERZEICHNUNG

Die Verzeichnung ist für die angegebenen Brennweiten oder Abbildungsmaßstäbe dargestellt.

Pos. Werte : Kissenförm. Verzeichnung
 Neg. Werte : Tonnenförm. Verzeichnung

—	$\beta' = -0.0200$	$u_{max}^* = 14.3$	$00' = 1817.$
- -	$\beta' = -0.0500$	$u_{max}^* = 14.3$	$00' = 765.$
----	$\beta' = -0.0900$	$u_{max}^* = 14.3$	$00' = 455.$



TRANSMISSION

Die relative spektrale Transmission ist als Funktion der Wellenlänge dargestellt.