

Macro lens

Componon-S 2.8/50-0018

Unlike conventional camera lenses where the optical performance decreases as the magnification increases, Schneider-Kreuznach macro lenses have been developed and corrected exclusively for the close-up range of 1:20 to 1:1. Due to its mechanical stability and the robust V-mount interface enabling simpler adjustment of the best azimuth position, the system is exceptionally well suited to demanding, continuous industrial use.



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Key Features

- Excellent optical imaging performance when using large sensors
- Vibration-insensitive for stable optical performance
- Industry-compatible V-mount interface
- Lockable distance and aperture settings
- Infinitely adjustable aperture, guaranteed long-term stability
- 100% quality control guarantees reliability and constant quality
- Low maintenance requirements, therefore high system reliability

Applications

- Machine Vision and other imaging applications
- PCB inspection
- LCD inspection
- OLED inspection
- Solar inspection

Technical Specifications

F-number	2.8
Focal length	50.2 mm
Image circle	43.2 mm
Magnification	-0,10
Transmission	400 - 700 nm
Interface	V-Mount
Weight	113 gr.
Option	Optical filter

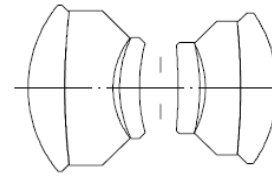
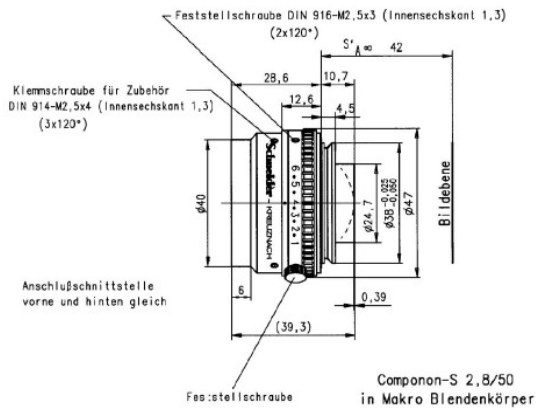
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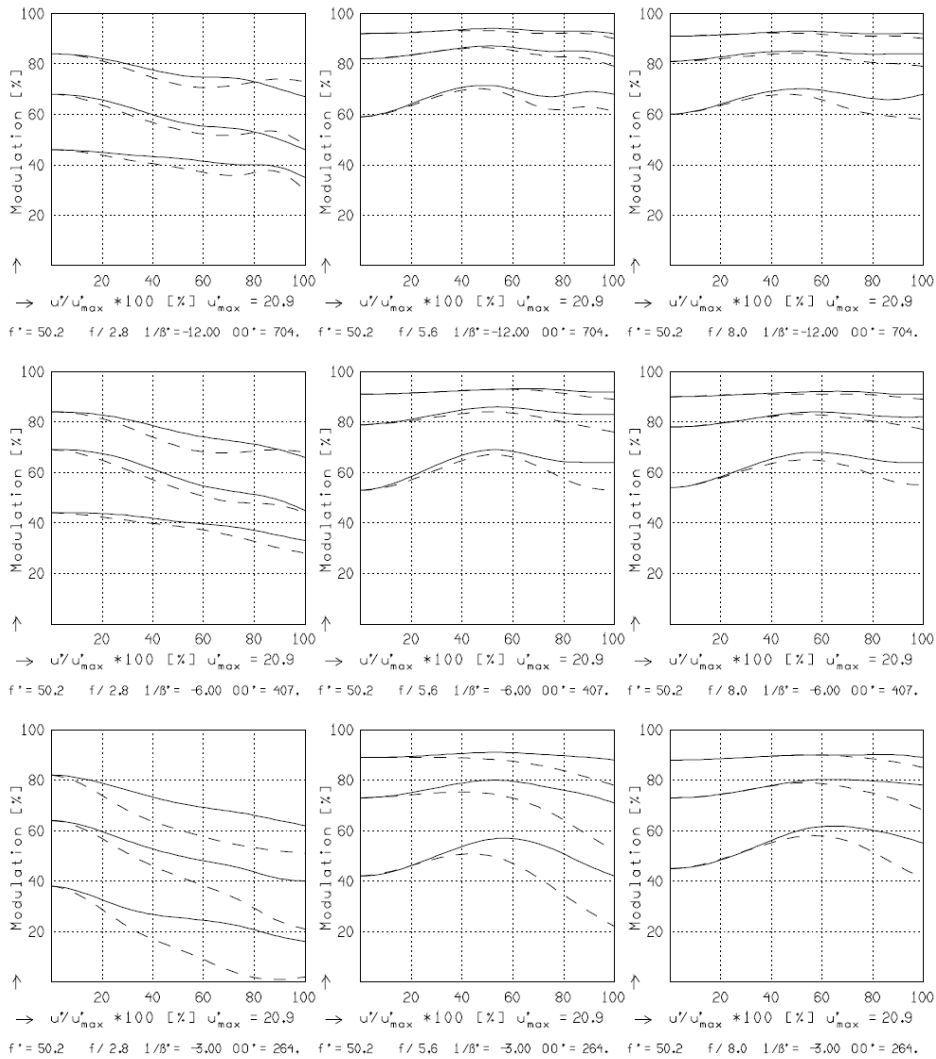
f^* = 50.2 mm	β_p = 0.945
s_F = -33.5 mm	s_{EP} = 19.6 mm
s_F^* = 31.7 mm	s_{AP} = -15.7 mm
HH' = -3.1 mm	Σd = 32.0 mm

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MODULATION with reference to the relative image height

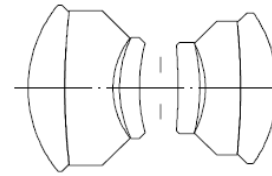
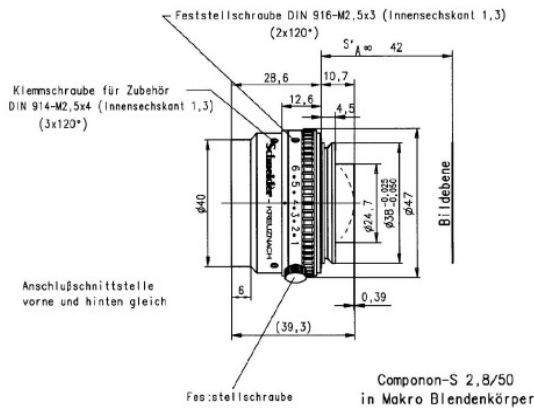
Wavelength λ [nm] :	546	706	644	480	436	405
Spectral weighting [%] :	27.4	12.4	24.1	18.3	12.6	5.2
Spatial frequency R [1/mm] :	10	20	40			
Format [mm X mm] :	23.0	X	35.0			
Diagonal $2u'$ [mm] :	41.9					

radial —
tangential - - -



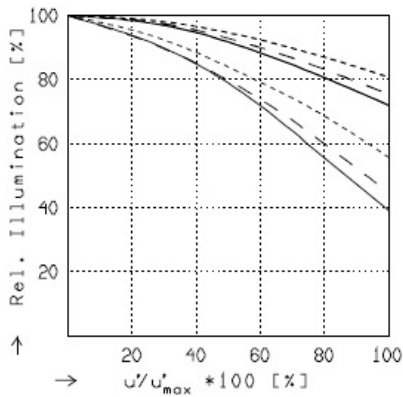
Focusing : MTF_{max} at f / 2.8 , R = 20 1/mm, u'/u'_max = 0

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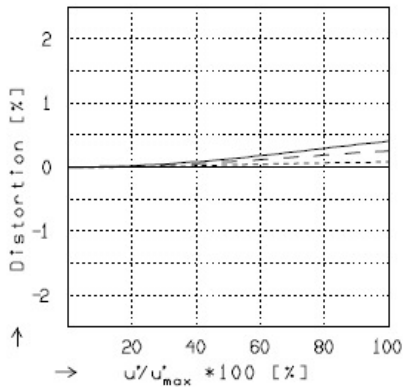
f^* = 50.2 mm	β_f^* = 0.945
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HH^* = -3.1 mm	Σd = 32.0 mm



RELATIVE ILLUMINATION

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

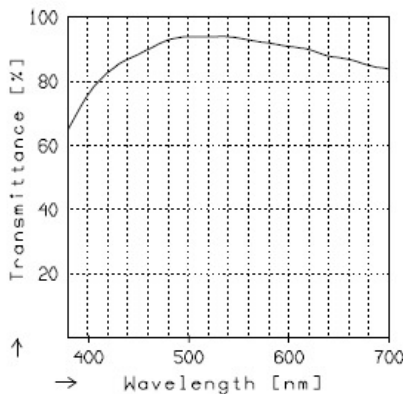
	$f / 2.8$	$f / 5.6$	$f / 8.0$
—	$\beta^* = -0.0833$	$u_{max}^* = 21.0$	$00^* = 704.$
- -	$\beta^* = -0.1667$	$u_{max}^* = 21.0$	$00^* = 407.$
----	$\beta^* = -0.3333$	$u_{max}^* = 20.9$	$00^* = 264.$



DISTORTION

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

—	$\beta^* = -0.0833$	$u_{max}^* = 20.9$	$00^* = 704.$
- -	$\beta^* = -0.1667$	$u_{max}^* = 20.9$	$00^* = 407.$
----	$\beta^* = -0.3333$	$u_{max}^* = 20.9$	$00^* = 264.$



TRANSMITTANCE

Relative spectral transmittance is shown with reference to wavelength.