

# V-Mount 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
- Continuous aperture adjustment, 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	1:20 to 1:1, optimized for -0.10
Transmission	400 - 700 nm
Interface	V38-Mount
Weight	113 gr.
Filter tread	M37 x 0.75
Code no.	14796

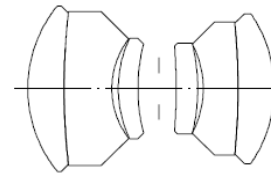
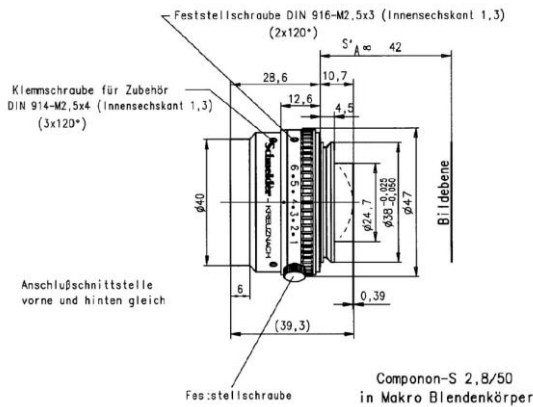
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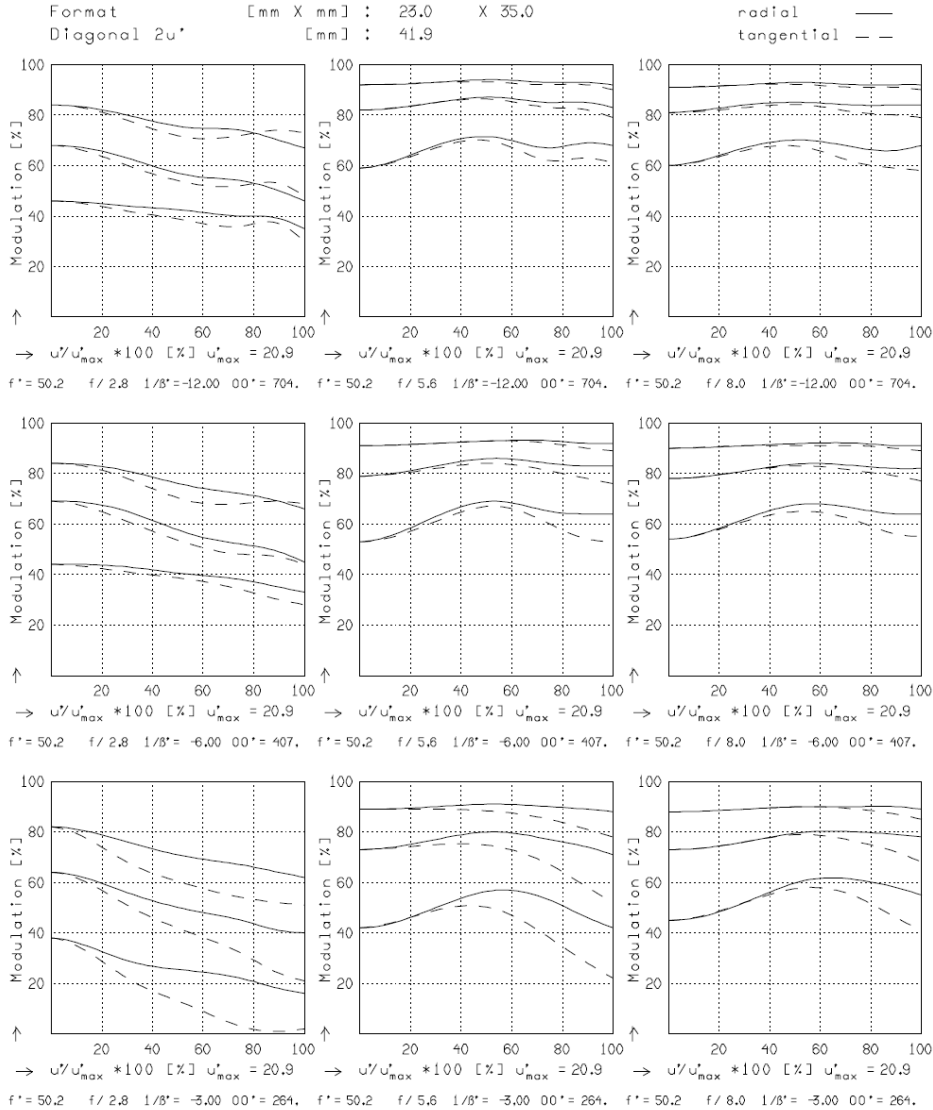
## COMPONON-S 2.8/50

$f^*$	= 50.2 mm	$\beta_p$	= 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	$\Sigma d$	= 32.0 mm

## COMPONON-S 2.8/50

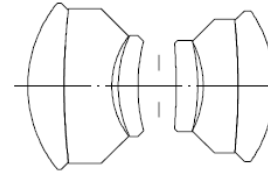
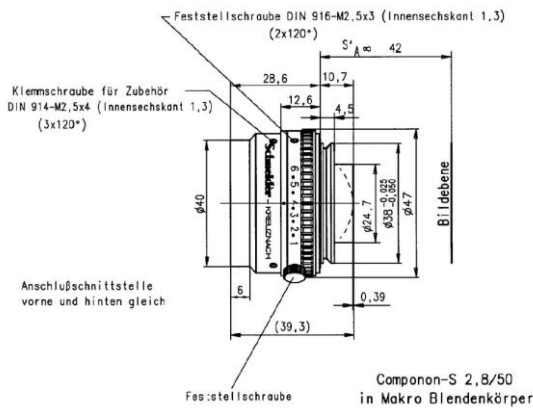
MODULATION with reference to the relative image height

Wavelength $\lambda$	[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					



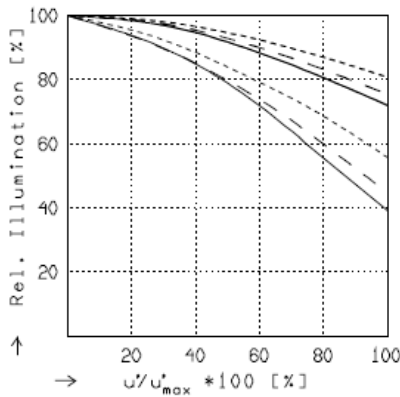
Focusing : MTF<sub>max</sub> at f / 2.8 , R = 20 1/mm.  $u'/u'_{max} = 0$

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## COMPONON-S 2.8/50

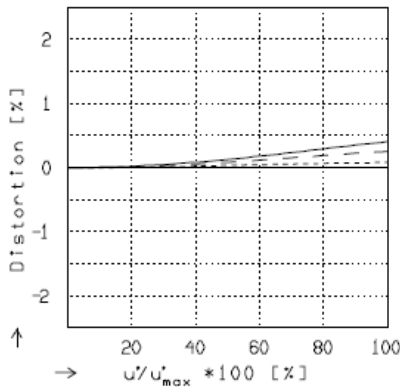
$f' = 50.2 \text{ mm}$	$\beta_p = 0.945$
$s_F = -33.5 \text{ mm}$	$s_{EP} = 19.6 \text{ mm}$
$s_F' = 31.7 \text{ mm}$	$s_{AP} = -15.7 \text{ mm}$
$HH' = -3.1 \text{ mm}$	$\Sigma d = 32.0 \text{ mm}$



## RELATIVE ILLUMINATION

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

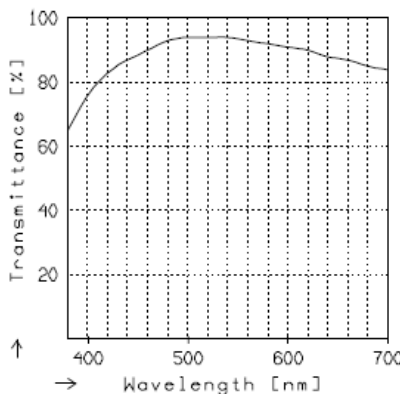
	$f / 2.8$	$f / 5.6$	$f / 8.0$
—	$\beta' = -0.0833$	$u_{\text{max}}' = 21.0$	$00' = 704.$
- -	$\beta' = -0.1667$	$u_{\text{max}}' = 21.0$	$00' = 407.$
----	$\beta' = -0.3333$	$u_{\text{max}}' = 20.9$	$00' = 264.$



## DISTORTION

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

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



## TRANSMITTANCE

Relative spectral transmittance is shown with reference to wavelength.