

V-Mount Macro Lens

Apo-Componon 2.8/40-0007

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.



Apo-Componon 2.8/40

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

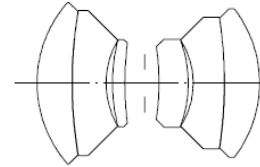
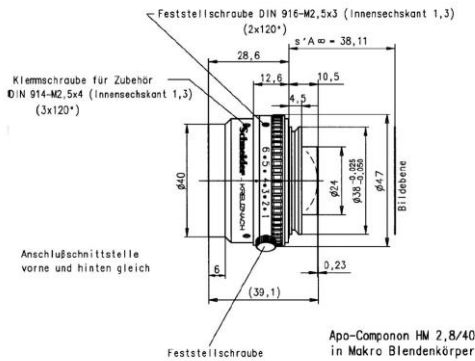
Applications

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

Technical Specifications

F-number	2.8
Focal length	41.5 mm
Image circle	43.2 mm
Magnification	1:20 to 1:1, optimized for -0.10
Transmission	400 - 700 nm
Interface	V38-Mount
Weight	108 gr.
Filter tread	M37 x 0.75
Code no.	14798

Apo-Componon 2.8/40



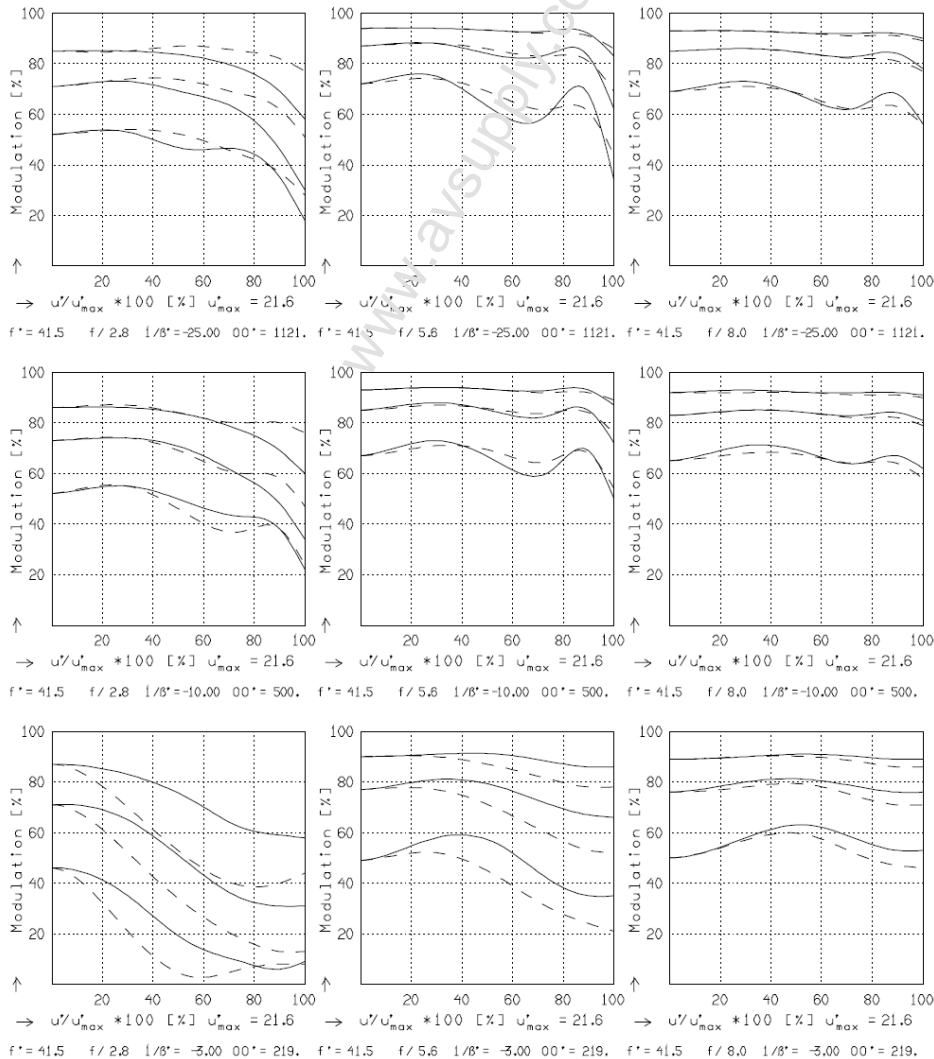
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f^* = 41.5 mm	β_p^* = 1.049
s_F = -24.5 mm	s_{EP} = 15.0 mm
s_F^* = 27.8 mm	s_{AP}^* = -15.7 mm
HH^* = -2.2 mm	Σd = 28.5 mm

APO-COMPONON 2.8/40

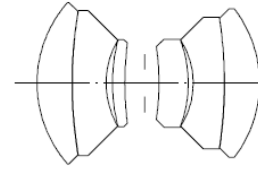
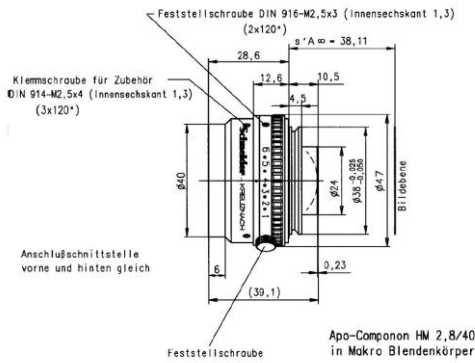
MODULATION with reference to the relative image height

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]	24.0	X	36.0			
Diagonal $2u'$	[mm]	43.2					



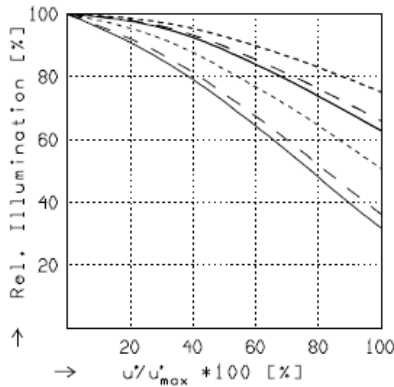
Focusing : MTF_{max} at f / 2.8 , R = 20 1/mm. $u'/u'_{max} = 0$

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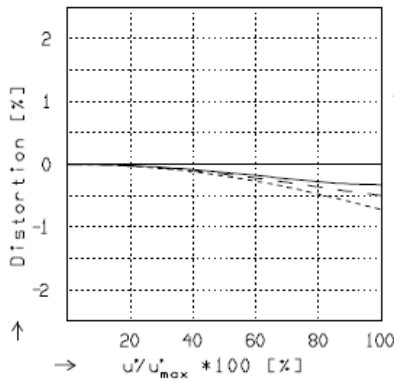
$f' = 41.5 \text{ mm}$	$\beta_p = 1.049$
$s_F = -24.5 \text{ mm}$	$s_{EP} = 15.0 \text{ mm}$
$s_F^* = 27.8 \text{ mm}$	$s_{AP}^* = -15.7 \text{ mm}$
$HH' = -2.2 \text{ mm}$	$\Sigma d = 28.5 \text{ mm}$



RELATIVE ILLUMINATION

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

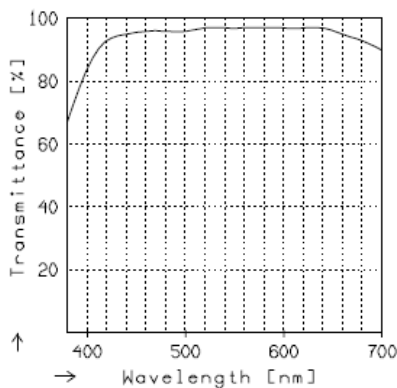
	$f / 2.8$	$f / 5.6$	$f / 8.0$
— $\beta^* = -0.0400$	$u'_{max} = 21.6$	$00' = 1121.$	
- - $\beta^* = -0.1000$	$u'_{max} = 21.6$	$00' = 500.$	
... $\beta^* = -0.3333$	$u'_{max} = 21.6$	$00' = 219.$	



DISTORTION

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

— $\beta^* = -0.0400$	$u'_{max} = 21.6$	$00' = 1121.$
- - $\beta^* = -0.1000$	$u'_{max} = 21.6$	$00' = 500.$
... $\beta^* = -0.3333$	$u'_{max} = 21.6$	$00' = 219.$



TRANSMITTANCE

Relative spectral transmittance is shown with reference to wavelength.