



# ZEISS Dimension 2/50



## Features

- fast f/2 aperture
- excellent image quality, leading to highest data precision over the complete image field
- for industrial cameras up to sensor sizes of 4/3"
- robust full-metal construction made of aluminium
- small and compact
- possibility to adjust the back focal distance to compensate for tolerances of camera bayonets
- possibility for azimuthal adjustment ensures best possible readability of scales
- fixable focus and aperture settings
- optimized spectral transmission in VIS and near IR range through ZEISS T\* coating

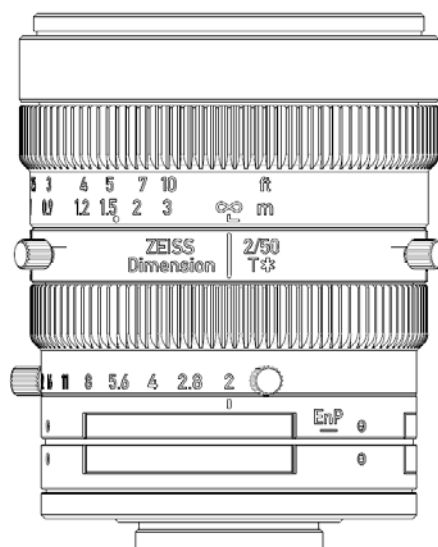
## Camera Mount

Available with  
C mount



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## Technical Specifications



### Optical data:

<b>Focal length</b>	50 mm
<b>Aperture range</b>	f/2 – f/22 (continuous)
<b>Number of elements / groups</b>	10 / 6
<b>Focus range (object to sensor)</b>	390,3 mm (1.28 ft.) – ∞
<b>Min. free working distance</b>	311,2 mm (1.02 ft.)
<b>Angular field (diag. / horiz. / vert.)</b>	<b>1"':</b> 17.81°/14.89°/9.98° <b>4/3"':</b> 24.00°/19.37°/14.66°
<b>Max. diameter of image field</b>	<b>1"':</b> 16 mm (0.63"); <b>4/3"':</b> 21.64 mm (0.83")
<b>Flange focal length (in air)</b>	17,526 mm (0.69"), C mount
<b>Coverage at close range</b>	<b>1"':</b> 72,3 mm x 48,2 mm (2.85 x 1.89") <b>4/3"':</b> 94,7 mm x 71,2 mm (3.73 x 2.80")
<b>Image ratio at close range</b>	1:5.5
<b>Position of entrance pupil (relative to image sensor)</b>	63,8 mm (2.51")
<b>Position of exit pupil (relative to image sensor)</b>	38,9 mm (1.53")

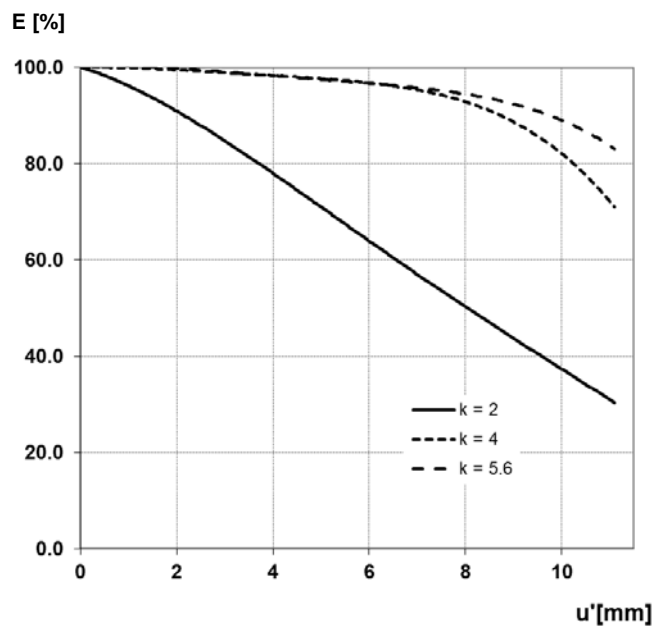
### Physical data:

<b>Length (front to mount contact surface at inf.)</b>	69,0 mm (2.72")
<b>Length (front to mount contact surface at MOD)</b>	81,0 mm (3.19")
<b>Diameter (lens only)</b>	57,0 mm (2.24")
<b>Diameter (with fixation screws)</b>	64,0 mm (2.52")
<b>Filter-thread</b>	M49 x 0.75
<b>Weight</b>	306 g (0.67 lbs)
<b>Camera mount</b>	C mount



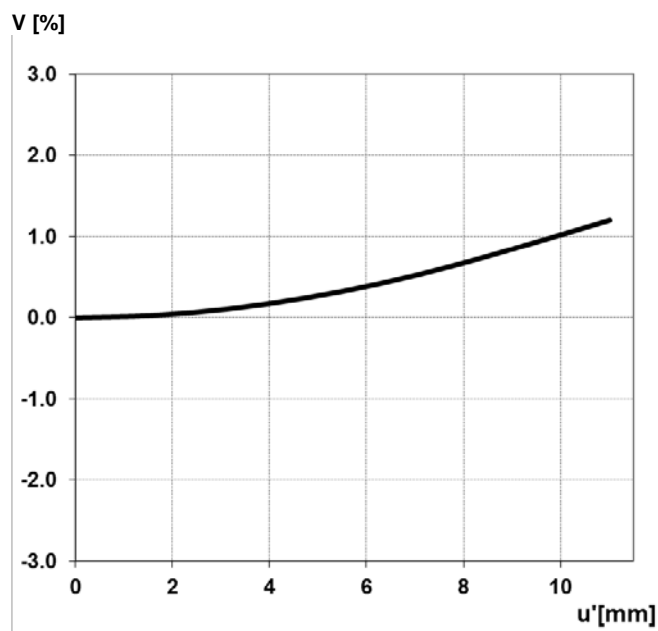
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## Relative Illuminance\*



The relative illumination shows the decrease in image brightness from the image center to the edge in percent.

## Relative Distortion\*

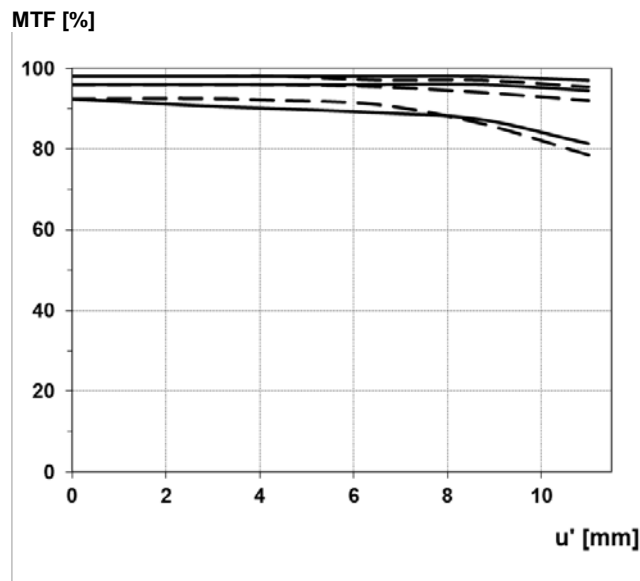


The relative distortion shows the deviation of the actual image height from the ideal one in percent.



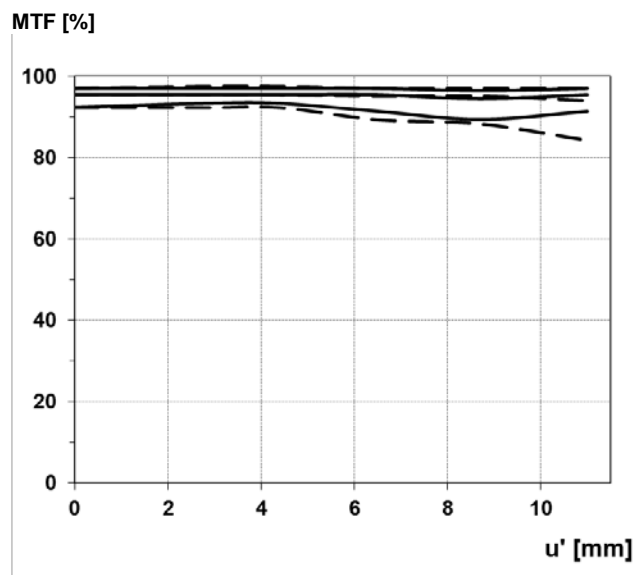
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## MTF Charts\*



The Modulation Transfer (MTF) as a function of image height ( $u$ ) and slit orientation (sagittal, tangential) has been measured with white light at spatial frequencies of  $R = 10, 20$  and  $40$  cycles/mm.

f-number 2  
— Sagittal  
-- Tangential



f-number 4  
— Sagittal  
-- Tangential

\*Data for infinite focus setting



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## Spectral Transmission

