





Features

- Fast f/2.0 aperture
- Precise manual focusing
- Robust full-metal construction
- Fixation for focus and aperture
- Identical color reproduction of all models
- For industrial cameras with F-Mount up to sensor sizes of 24x36 mm or 43mm line sensors.

ZF-I: Industrial Edition

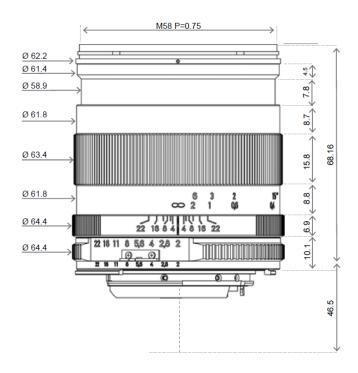
Features special screws to fix focus and aperture settings even in rough situations.

Camera Mounts

Available with ZF.2, EF and M42 mount.



Technical Specifications

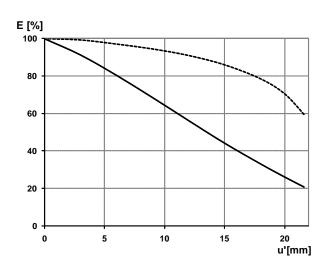


Focal length	28 mm
Aperture range	f/2 — f/22 (1/2 stop intervals)
Number of elements / groups	10 / 8
Min. working distance (object to sensor)	240 mm (0.8 ft.) — ∞
Min. free working distance	120 mm (0.4 ft.) — ∞
Angular field* (diag. / horiz. / vert.)	74 / 65 / 45°
Max. diameter of image field	43 mm (1.7")
Flange focal length	F-Mount: 46.5 mm (1.8"); M42-Mount: 45,5 mm
Coverage at close range	113 x 169 mm (4.5 x 6.7"), line 202 mm (7.9")
Image ratio at close range	1:4.7
Filter-thread	M 58 x 0.75
Weight	500 g (1 lbs.)
Camera mount	F bayonet, M42, EF

^{*} referring to 35 mm format



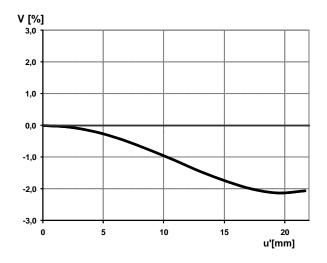
Relative Illuminance



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

- f-number 2
- ... f-number 4

Relative Distortion

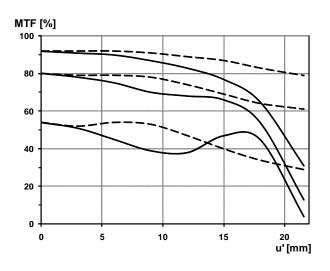


The relative distortion shows the deviation of the actual image height from the ideal one in percent.

^{*}Data for infinite focus setting



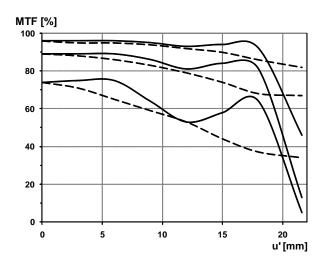
MTF Charts



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

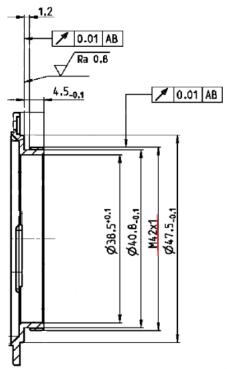
- ___ Sagittal
- ... Tangential



f-number 4 __ Sagittal ... Tangential

^{*}Data for infinite focus setting





M42 Mount for 45,5 mm Flange Focal Distance

The diameter of the camera/lens adapter must not exceed 55 mm at the lens side!