



#### **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**

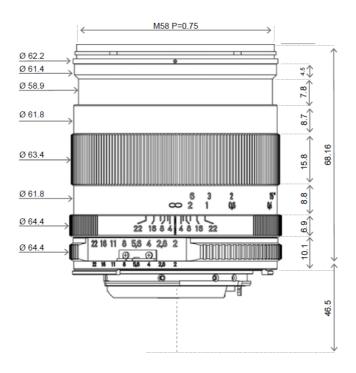
Features special screws to fix focus and aperture settings even in rough situations.

#### **Camera Mounts**

Available with ZF.2, EF and M42 mount.



### **Technical Specifications**

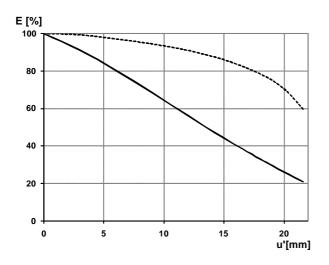


Focal length	28 mm
Aperture range	f/2 — f/22 (1/2 stop intervals)
Number of elements / groups	10 / 8
Min. working distance (object to sensor)	240 mm (0.8 ft.) — ∞
Min. free working distance	120 mm (0.4 ft.) − ∞
Angular field* (diag. / horiz. / vert.)	74 / 65 / 45°
Max. diameter of image field	43 mm (1.7")
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

<sup>\*</sup> referring to 35 mm format



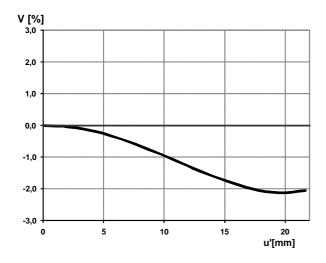
### **Relative Illuminance**



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**

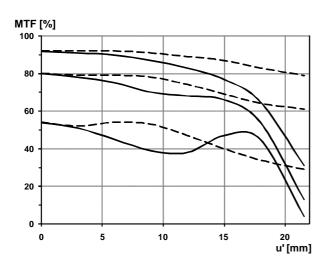


The relative distortion shows the deviation of the actual image height from the ideal one in percent.

<sup>\*</sup>Data for infinite focus setting



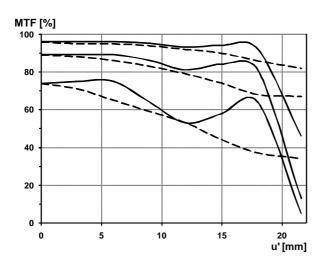
#### **MTF Charts**



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

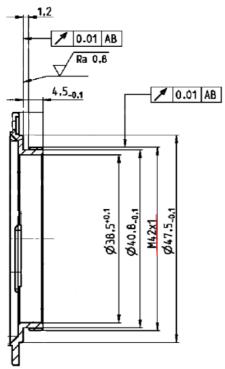
- \_\_\_ Saggital
- ... Tangential



f-number 4 \_\_ Saggital ... Tangential

<sup>\*</sup>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!