







#### **Features**

- Fast f/1.4 aperture
- Precise manual focusing
- Robust full-metal construction
- 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.

#### **ZF-IR: Infrared Edition**

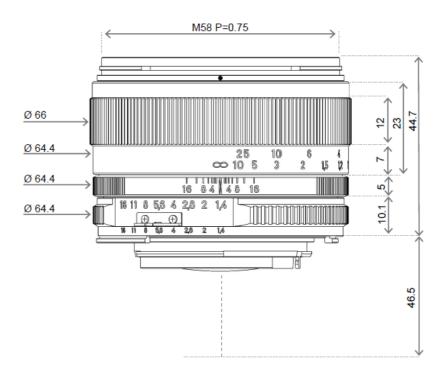
Features special coating for optimized performance in near-infrared applications.

#### **Camera Mounts**

Available for other camera mounts such as EF, or M42 screw mount.



### **Technical Specifications**

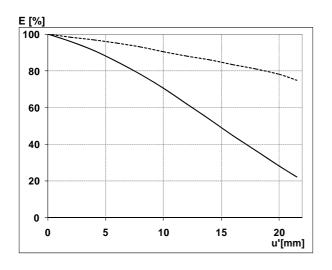


Focal length	50 mm
Aperture range	f/1.4 – f/16 (1/ 2 stop intervals)
Number of elements / groups	7/6
Min. working distance (object to sensor)	450 mm (1.48 ft.) — ∞
Min. free working distance	351mm (1.15 ft.) — ∞
Angular field* (diag. / horiz. / vert.)	45 / 38 / 26 °
Max. diameter of image field	43 mm (1.7")
Flange focal length	F-Mount: 46.5 mm (1.8"); M42-Mount: 45,5 mm
Coverage at close range	160 x 240 mm (6.3 x 9.4"), line 288 mm (11")
Image ratio at close range	1:6.7
Filter-thread	M 58 x 0.75
Weight	330 g (0.66 lbs.)
Camera mount	F bayonet, M42, EF

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



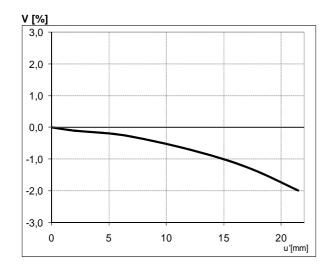
### **Relative Illuminance\***



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

\_\_ f-number 1.4 ... f-number 4

### **Relative Distortion\***

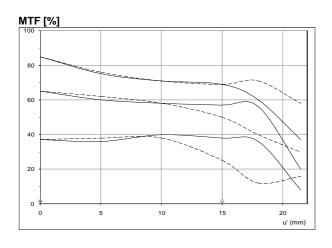


The relative distortion shows the deviation of the actual image height from the ideal one in percent.

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

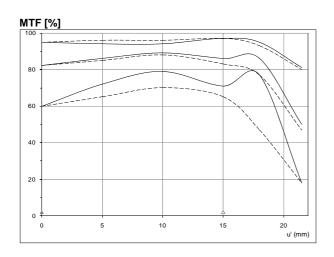


### MTF Charts\*



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. The MTF charts are valid for the ZF, ZF-I version and for white light.

f-number 1.4 \_\_\_ Saggital ... Tangential

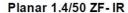


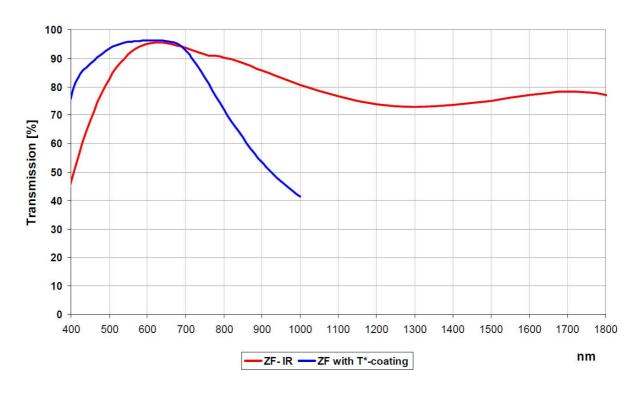
f-number 4 \_\_ Saggital ... Tangential

<sup>\*</sup>Data for infinite focus setting / Not for IR version

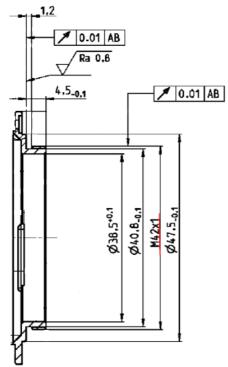


### Spectral Transmission ZF vs. ZF-IR









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!

