



#### **Features**

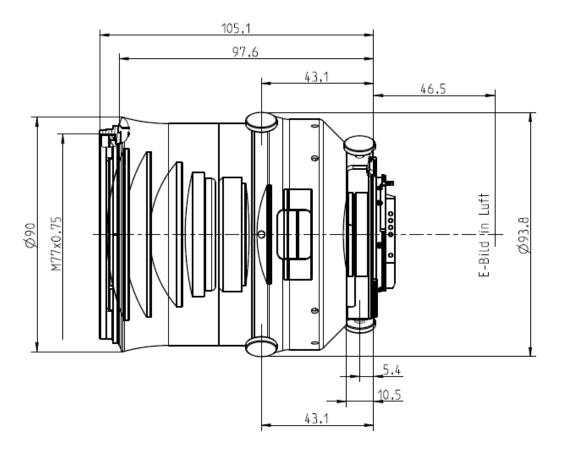
- Fast f/2.0 aperture
- Extraordinary high resolution and contrast
- Low distortion
- Precise manual focusing
- Robust full-metal construction
- Continuous aperture setting or click stop
- For industrial cameras up to sensor sizes of 24x36 mm or 41mm line sensors
- High optical performance both at infinity and at 1:2 scale
- Features special screws to fix focus and aperture settings even in rough situations

#### **Camera Mounts**

Available with F mount or M42 screw mount



### **Technical Specifications**

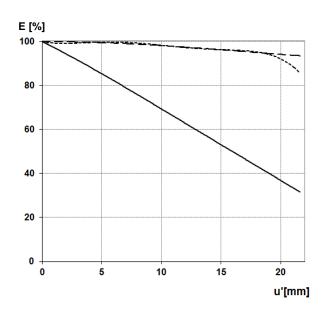


| Focal length                             | 135 mm  |
|--|---|
| Aperture range                           | f/2 – f/22 (1/2 stop intervals or continuous) |
| Number of elements / groups              | 11 / 8  |
| Min. working distance (object to sensor) | 800 mm (2.62 ft.) — ∞                         |
| Min. free working distance               | 620 mm (1.37 ft.) — ∞                         |
| Angular field* (diag. / horiz. / vert.)  | 18,7 / 15,6 / 10,5 °                          |
| 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                  | 145 x 96 mm (5.7 x 3.8") line 172 mm (6.8")   |
| Image ratio at MOD                       | 1:4   |
| Filter-thread                            | M 77 x 0.75                                   |
| Weight                                   | 1.126 g (2.48 lbs.)                           |
| Camera mount                             | F bayonet, M42                                |

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



#### **Relative Illuminance\***

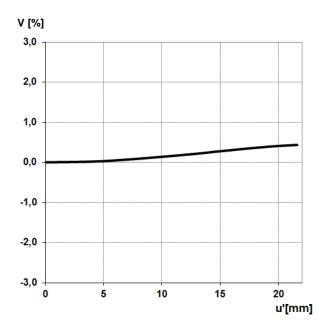


The relative illumination shows the decrease in image brightness from the image center to the edge in percent.

 $_{-}$  f-number = 2.0

 $\dots$  f-number = 5.6

### **Relative Distortion\***

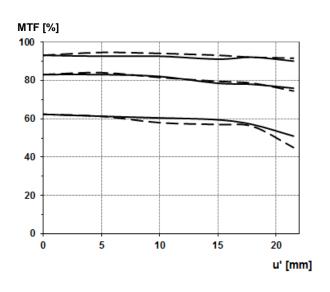


The relative distortion shows the deviation of the actual image height from the ideal one in percent.

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



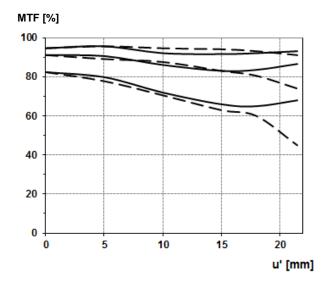
#### **MTF Charts\***



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

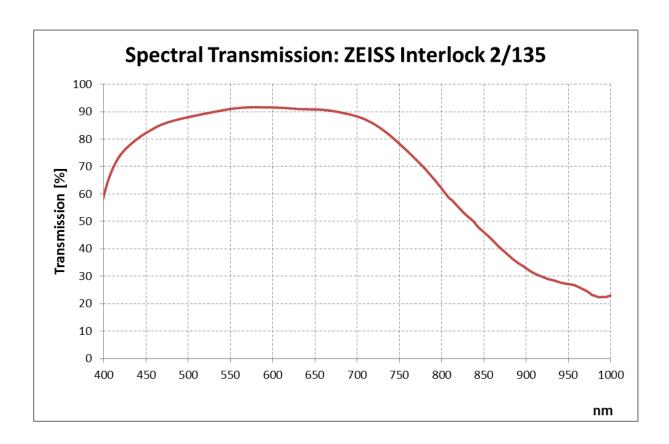


f-number 4 \_\_ Saggital ... Tangential

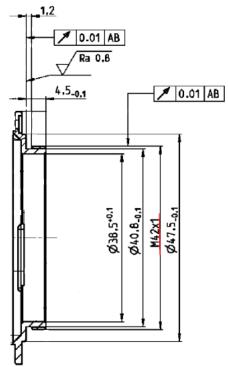
\*Data for infinite focus setting



### **Spectral Transmission**







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!