



Distagon T* 3,5/18 ZF



Features

- A floating elements design ensures performance virtually unchanged from close distance to infinity
- The lens design produces nearly distortion-free images
- Precise manual focusing
- Robust full-metal construction
- Identical color reproduction of all models assures the quality of products measured by hue difference
- Mounts and optical coatings can be modified on request

ZF-I: Industrial Edition

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

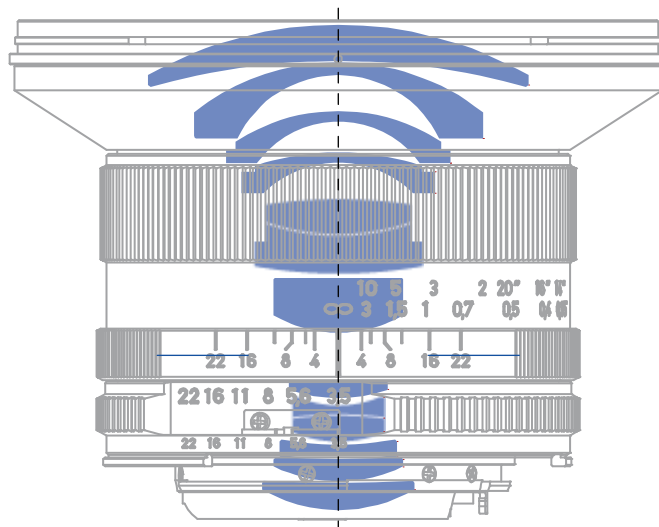
Camera Mounts

Available for other camera mounts such as EF mount.



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Technical Specifications



| | |
|--|------------------------------------|
| Focal length | 18 mm |
| Aperture range | f/3.5 – f/22 (1/ 2 stop intervals) |
| Number of elements / groups | 13 / 11 |
| Working distance (object to sensor) | 19 cm (0.62 ft) – ∞ |
| Angular field* (diag. / horiz. / vert.) | 99 / 90 / 67 ° |
| Max. diameter of image field | 43 mm (1.7") |
| Flange focal length | 46.5 mm (1.8") |
| Coverage at close range | 44 x 29 cm (1.7 x 1.1") |
| Image ratio at close range | 1:12 |
| Filter-thread | M 82 x 0.75 |
| Length (without caps)** | 59 mm (2.3") |
| Diameter | 87 mm (3.4") |
| Weight | 470 g (16 oz.) |
| Camera mount*** | ZF (F bayonet) |

* referring to 35 mm format

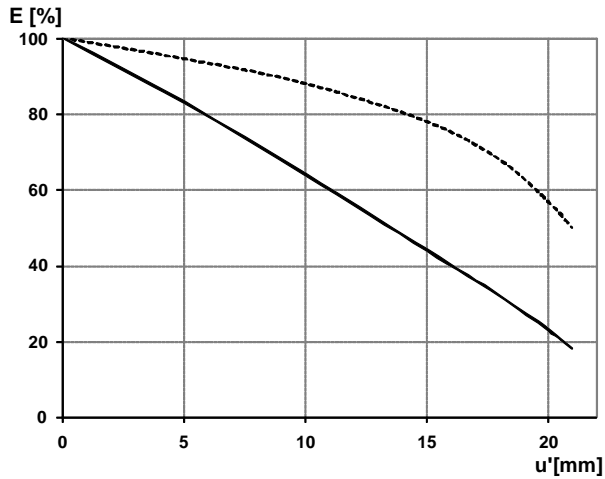
** from bayonet mount to filter thread when lens focused to infinity

*** other mounts available on request



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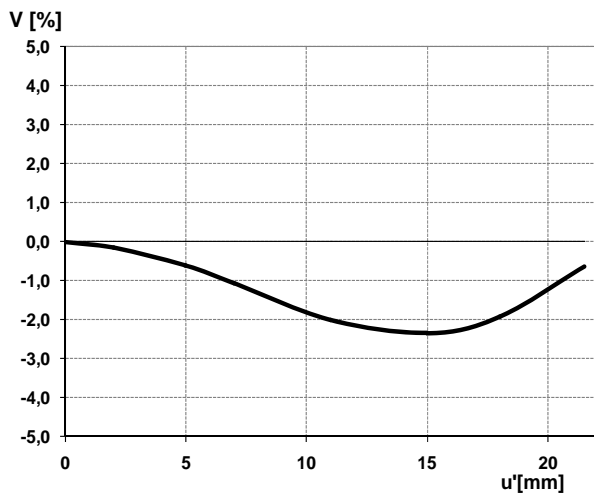
Relative Illuminance



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

— f-number 2
... f-number 4

Relative Distortion



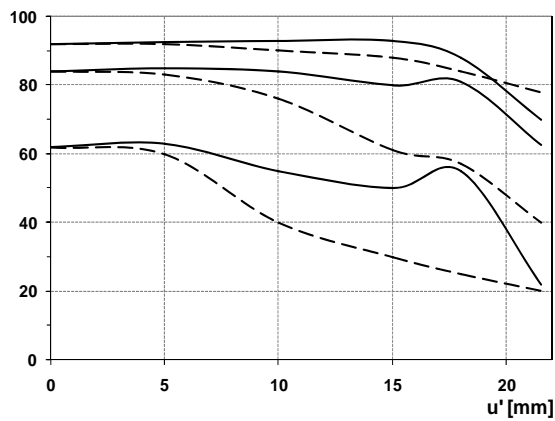
The relative distortion shows in percent the deviation of the actual from the ideal image height.



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MTF Charts

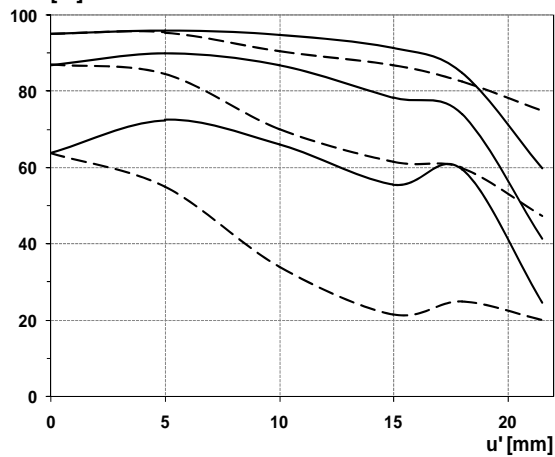
MTF [%]



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 3.5
— Saggital
... Tangential

MTF [%]



f-number 8
— Saggital
... Tangential



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Depth of Field

| Aperture | Field range | | | |
|----------|----------------------------------|-------------------|----------------------------------|-------------------|
| | Object distance 3.00 m (9.84 ft) | | Object distance 1.00 m (3.28 ft) | |
| f / 3.5 | 1.6 – 28.00 m | (5.25 – 91,86 ft) | 0.80 – 1.40 m | (2.62 – 4.60 ft) |
| f / 4 | 1.50 – ∞ | (5.00 – ∞) | 0.78 – 1.40 m | (2.56 – 4.60 ft) |
| f / 5.6 | 1.30 – ∞ | (4.27 – ∞) | 0.72 – 1.80 m | (2.36 – 5.90 ft) |
| f / 8 | 1.04 m – ∞ | (3.41 ft – ∞) | 0.64 – 2.70 m | (2.10 – 8.86 ft) |
| f / 11 | 0.85 m – ∞ | (2.79 ft – ∞) | 0.57 – 8.00 m | (1.87 – 26.25 ft) |
| f / 16 | 0.66 m – ∞ | (2.17 ft – ∞) | 0.49 – ∞ | (1.61 – ∞) |
| f / 22 | 0.53 m – ∞ | (1.74 ft – ∞) | 0.42 – ∞ | (1.38 – ∞) |