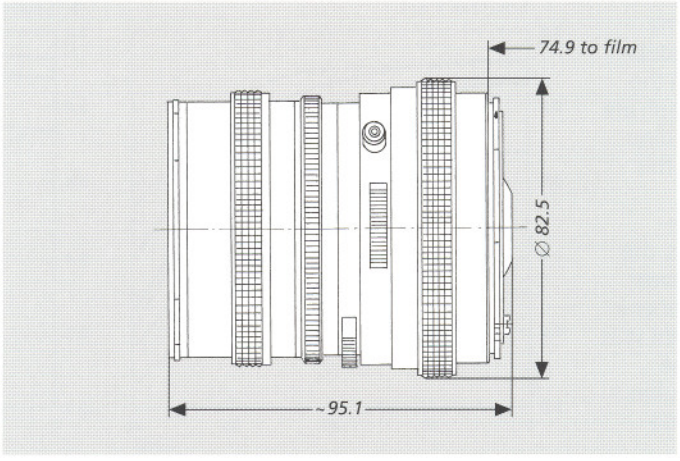
Distagon® T* f/4 – 50 mm



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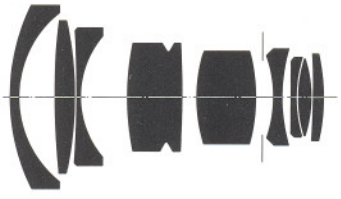


The **Distagon**® T* f/4 lens is quite light and compact – despite the addition of further lens elements. Image quality is very good in the distance range and the use of a floating element has resulted in a considerable improvement in the near range. Like the 40 mm **Distagon**® T* f/4 lens, this lens features two focusing rings. The first, which is marked with 4 distance ranges, is used to preselect the range required for the photograph. The following ranges are available: ∞–4 m, 4–1.2 m, 1.2–0.8 m and 0.8–0.5 m.

Adjustment of this ring changes the distance of the front group (elements 1–4) from the rest of the optical system, providing the most favourable spacing for optimum image quality. The second ring, adjustable from ∞ to 0.5 m, is then used to focus in the usual way.

This lens is ideal for landscape, architectural and press photography.

Cat. No. of lens:	**10 49 08**
Number of elements:	9
Number of groups:	8
Max. aperture:	f/4
Focal length:	52.0 mm
Negative size:	56.5 x 56.5 mm
Angular field 2w:	diagonal 75°, side 58°
Spectral range:	visible spectrum
Aperture scale:	4 – 5.6 – 8 – 11 – 16 – 22 – 32
Mount:	focusing mount with bayonet; coupling system for automatic diaphragm function
Shutter:	Prontor CF
Filter connection:	bayonet for Hasselblad series 93
Focusing range:	∞ to 0.5 m
Weight:	approx. 800 g
Close-limit field size:	360 x 360 mm

Near ranges, optimized:	∞ to 4.0 m 4.0 m to 1.2 m 1.2 m to 0.8 m 0.8 m to 0.5 m
Reproduction ratio:	0 to 1:6.3
Entrance pupil:	
Position:	32.0 mm behind the first lens vertex
Diameter:	13.0 mm
Exit pupil:	
Position:	15.6 mm in front of the last lens vertex
Diameter:	22.6 mm
Position of principal planes	
H:	53.8 mm behind the first lens vertex
H':	22.2 mm behind the last lens vertex
Diameter of exit pupil:	28.0 mm
Back focal distance:	74.0 mm
Distance between first and last lens vertex:	87.0 mm

Planar
100 Years

ZEISS

Performance data:
Distagon® T* f/4 – 50 mm
No. 104908

1. MTF Diagrams

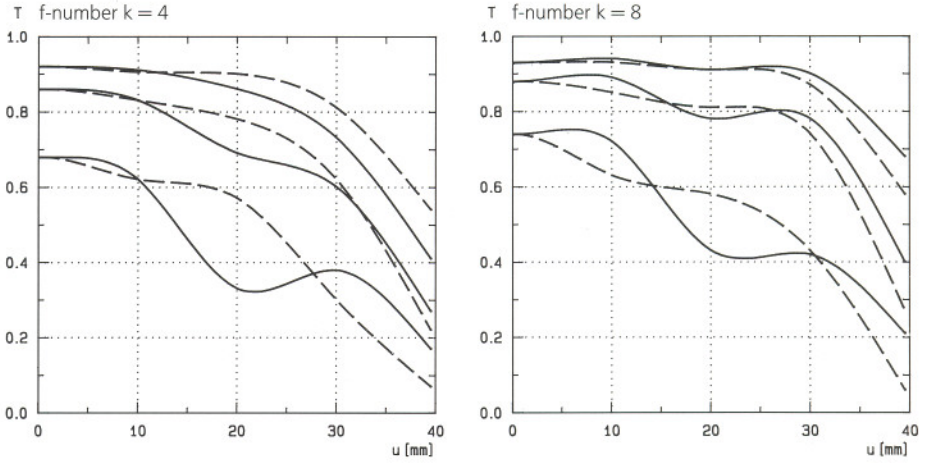
The image height u – calculated from the image center – is entered in mm on the horizontal axis of the graph. The modulation transfer T (MTF = Modulation Transfer Factor) is entered on the vertical axis. Parameters of the graph are the spatial frequencies R in cycles (line pairs) per mm given at the top of this page.
The lowest spatial frequency corresponds to the upper pair of curves, the highest spatial frequency to the lower pair. Above each graph, the f-number k is given for which the measurement was made. "White" light means that the measurement was made with a subject illumination having the approximate spectral distribution of daylight.

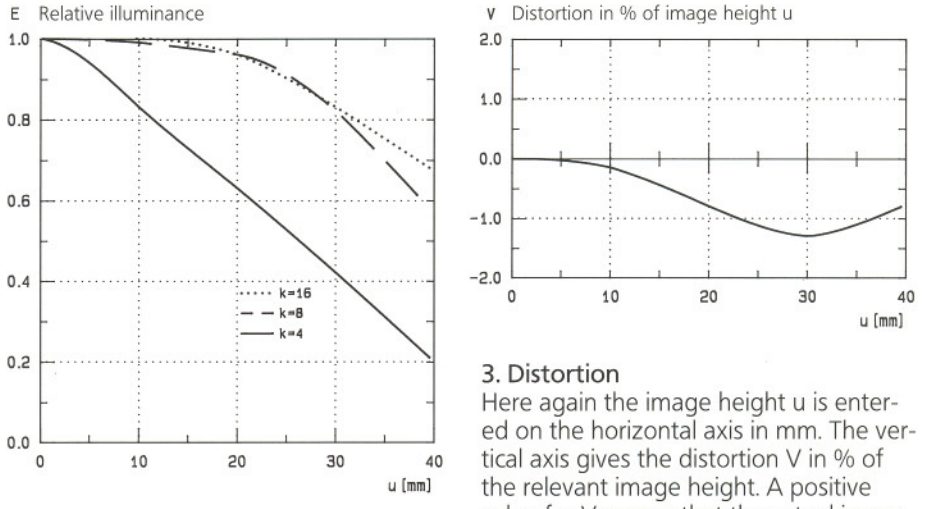
Unless otherwise indicated, the performance data refer to large object distances, for which normal photographic lenses are primarily used.

2. Relative illuminance

In this diagram the horizontal axis gives the image height u in mm and the vertical axis the relative illuminance E, both for full aperture and a moderately stopped-down lens. The values for E are determined taking into account vignetting and natural light decrease.

Modulation transfer T as a function of image height u. Slit orientation: tangential — — — sagittal ———
White light. Spatial frequencies R = 10, 20 and 40 cycles/mm





3. Distortion

Here again the image height u is entered on the horizontal axis in mm. The vertical axis gives the distortion V in % of the relevant image height. A positive value for V means that the actual image point is further from the image center than with perfectly distortion-free imaging (pincushion distortion); a negative V indicates barrel distortion.

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Subject to change.

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