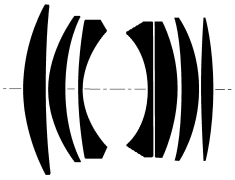
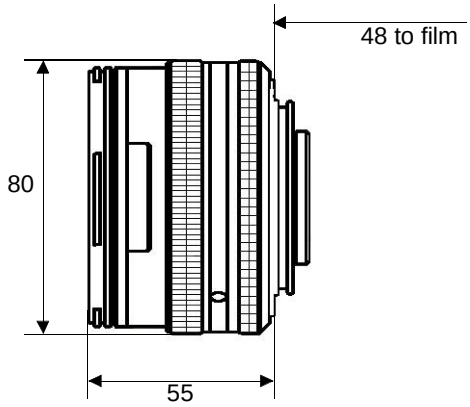
Planar® T* 1.4/50





CONTAX® N1

The **Planar**® lens from Carl Zeiss is the most successful lens design ever conceived. This lens type is the basis of almost all professional "workhorse" lenses on earth – and in space.
The **Planar**® T* 1.4/50 autofocus lens is the fastest standard focal length developed for the Contax® N1 system. At the same time, it is the smallest and lightest lens in the system.
The lens provides a perspective (the ratio between the size of details in the foreground and in the background) which is similar to how the human eye sees the world. This makes it the ideal lens for many photographic tasks, in particular for documentary work where it is important to capture many details, as the optical performance of the **Planar**® T* 1.4/50 lens is so high that it allows even the potential of high-resolution films to be fully utilized.

The **Planar**® T* 1.4/50 lens incorporates special, high refractive glass types. Even at initial aperture, the **Planar**® T* 1.4/50 lens provides remarkably high image quality. This makes the **Planar**® T* 1.4/50 lens the ideal lens for photography where a shallow depth of field is desired or in low-light situations where the full aperture has to be used.

Preferred applications:
All-purpose lens, documentation, available-light photography, traveling, editorials, flash-free photography of interiors

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Cat. No. of lens	**10 22 32**
Number of elements	7
Number of groups	6
Max. aperture	f/1.4
Focal length	51.8 mm
Negative size	24 x 36 mm
Angular field*	width 39°; height 33°; diagonal 2w 46°
Min. aperture	16
Camera mount	Contax N1
Filter connection	M 67 x 0.75
Focusing range	infinity to 0.45 m
Working distance (between mechanical front end of lens and subject)	0.40 m
Close limit field size	186 mm x 283 mm
Max. scale	1 : 7.7
Entrance pupil*	
Position	27.1 mm behind the first lens vertex
Diameter	35.9 mm
Exit pupil*	
Position	28.4 mm in front of the last lens vertex
Diameter	48.9 mm
Position of principal planes*	
H	38.5 mm behind the first lens vertex
H'	13.7 mm in front of the last lens vertex
Back focal distance	38.1 mm
Distance between first and last lens vertex	42.3 mm
Weight	310 g

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* at infinity

ZEISS

Performance data:
Planar® T* 1.4/50
Cat. No. 10 22 32

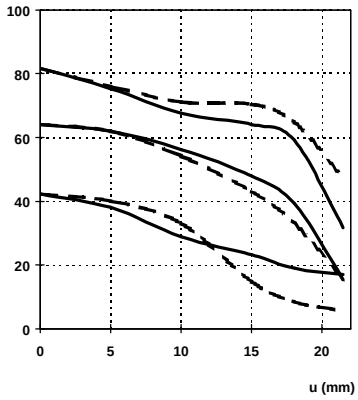
1. MTF Diagrams

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 = M odulation 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.

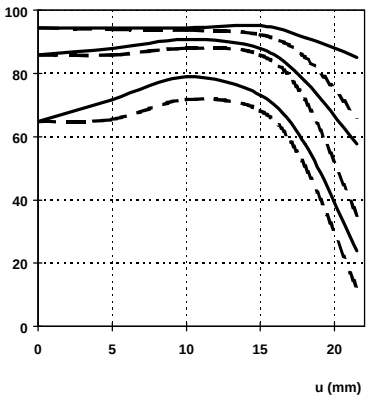
Modulation transfer T as a function of image height u.
White light. Spatial frequencies R = 10, 20 and 40 cycles/mm

Slit orientation: —— **sag** – – **tan**

f-number k = 1.4
T (%)



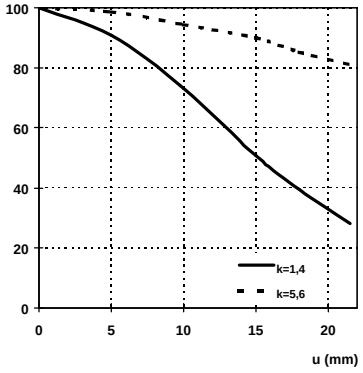
f-number k = 5.6
T (%)



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.

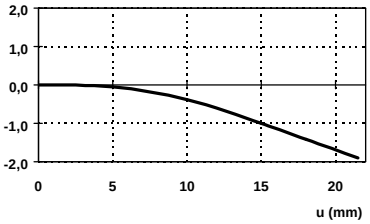
Relative illuminance
E (%)



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.

Distortion in % of image height u
V



Subject to change.
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