Distagon T*
f/4–40 mm
Cat. No.
104163*

HASSELBLAD

ZEISS

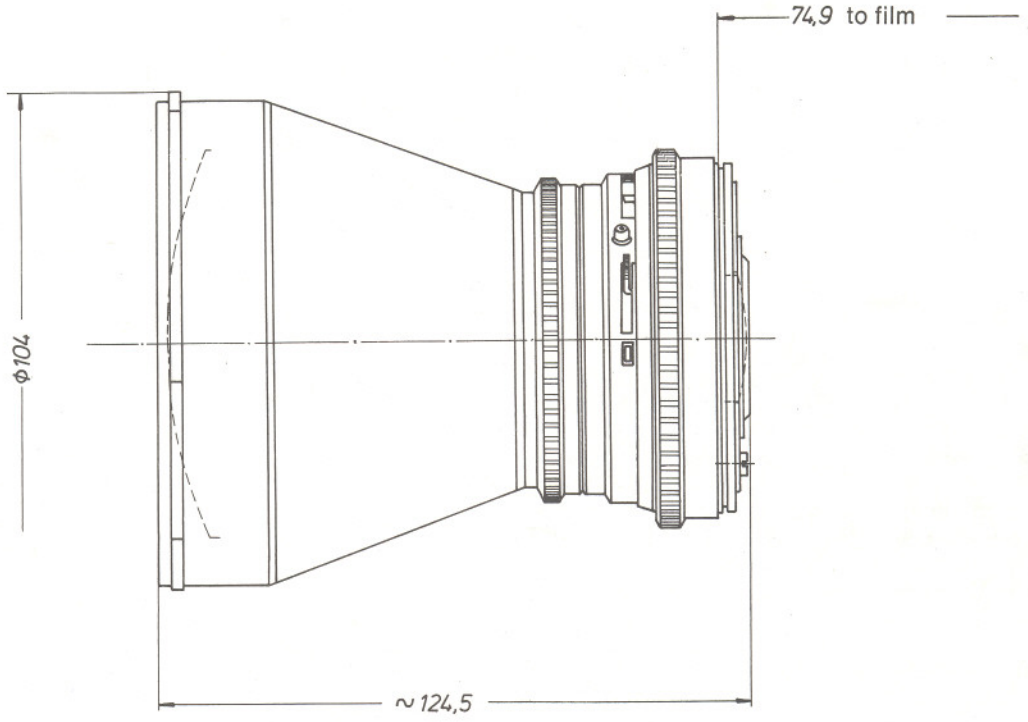
Carl Zeiss
D-7082 Oberkochen
West Germany

The Distagon T* f/4–40 mm with its angular field of 88° covers almost the same object field as the Biogon for the Hasselblad Superwide Camera.

In spite of the extraordinary technical features of this lens – speed, angular field and a long back focal distance compared with the focal length – the distortion could be kept remarkably small, an outstanding feature because the correction of wide-angle lenses of excessively long back focal distances is very difficult. The lens can also be used for architectural photography. The Distagon T* f/4–40 mm is especially suited for the photography of interiors, machines and models and for press photography.

The distance setting ring of this lens has a click stop at 0.9 m, which must be by-passed for photographs in the range from 0.9 m to 0.5 m. This stop position is meant to remind the user that he must stop down at distances below 0.9 m.

* See also the Zeiss reprint S 10-053-e on the Distagon T* f/4–40 mm.



Number of lens elements:	10
Number of components:	9
f-number:	4
Focal length:	40.9 mm
Negative size:	56.5 x 56.5 mm
Angular field 2w:	diagonal 88°, side 69°
Spectral range:	visible spectrum
f-stop scale:	4 - 5.6 - 8 - 11 - 16 - 22 - 32
Mount:	Compur interchangeable reflex shutter size 0 with automatic iris diaphragm
Filter mounting:	bayonet for Hasselblad series 104
Weight:	approx. 1375 g

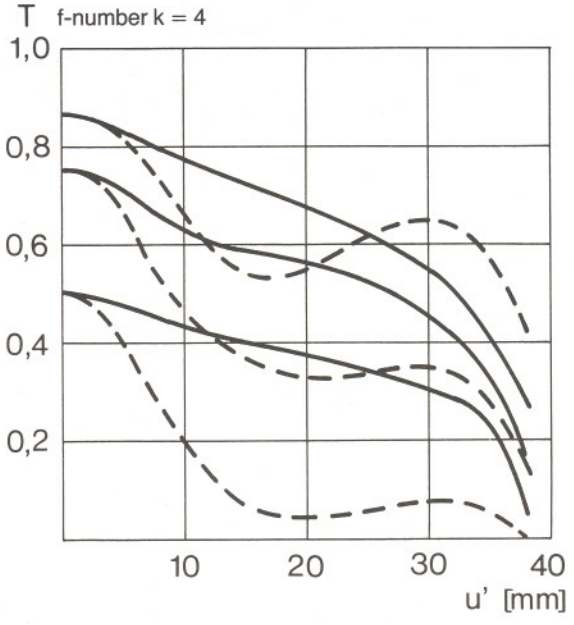
Distance range:	∞ to 0.5 m [1])
Automatic depth-of-field indication for z = 0.043 mm [2])	
Position of entrance pupil:	45.5 mm behind the first lens vertex
Diameter of entrance pupil:	10.2 mm
Position of exit pupil:	21.2 mm in front of the last lens vertex
Diameter of exit pupil:	23.0 mm
Position of principal plane H:	67.6 mm behind the first lens vertex
Position of principal plane H′:	28.7 mm behind the last lens vertex
Distance between first and last lens vertex:	122.1 mm

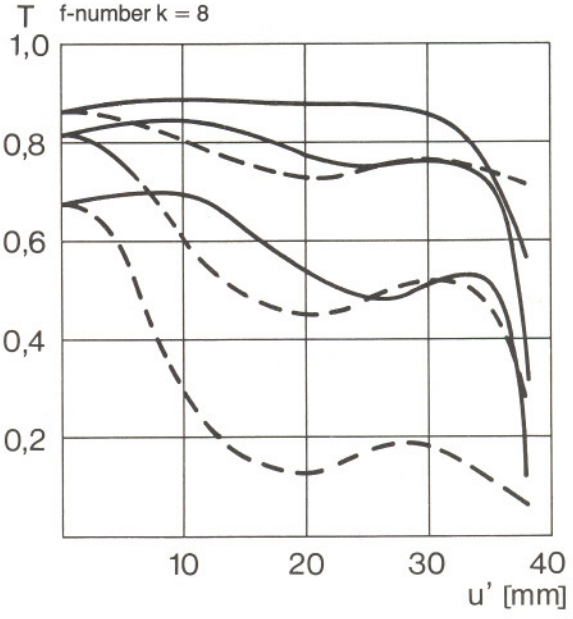
[1]) click-stop at 0.9 m
[2]) z = circle-of-confusion diameter

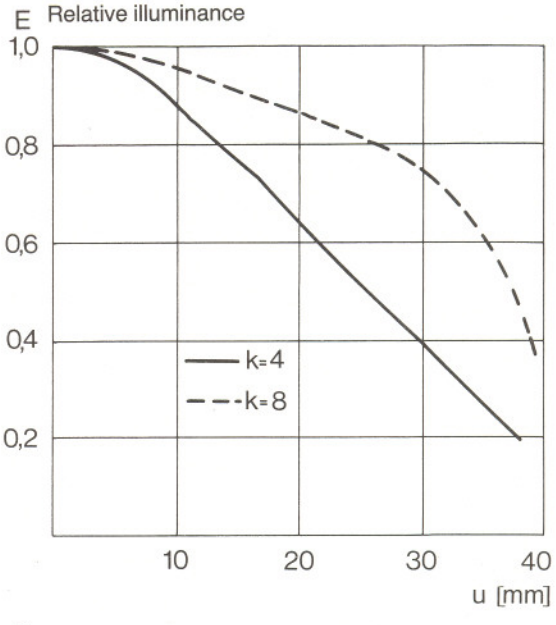
Performance data: Distagon T* f/4–40 mm Cat. No. 10 41 63

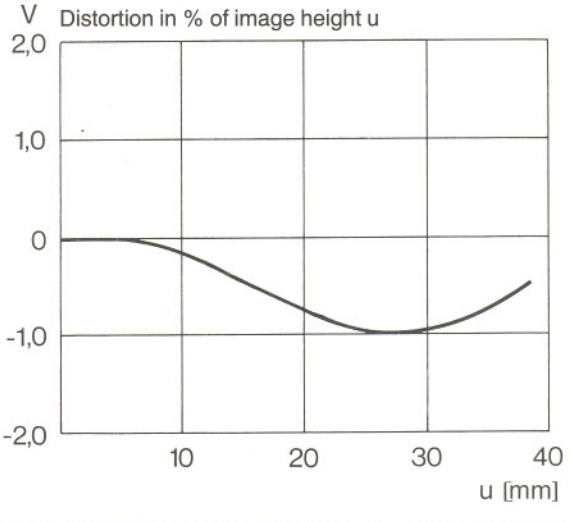
Modulation transfer T as a function of image height u
Slit orientation tangential — — — —
sagittal ————

White light
Spatial frequencies R = 10, 20 and 40 cycles/mm









1. MTF Diagrams
The image height u – reckoned from the image center – is entered in mm on the horizontal axis of the graph. The modulation transfer T (MTF = **M**odulation **T**ransfer **F**actor) 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 right hand above the diagrams.
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.

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.

Subject to technical amendment