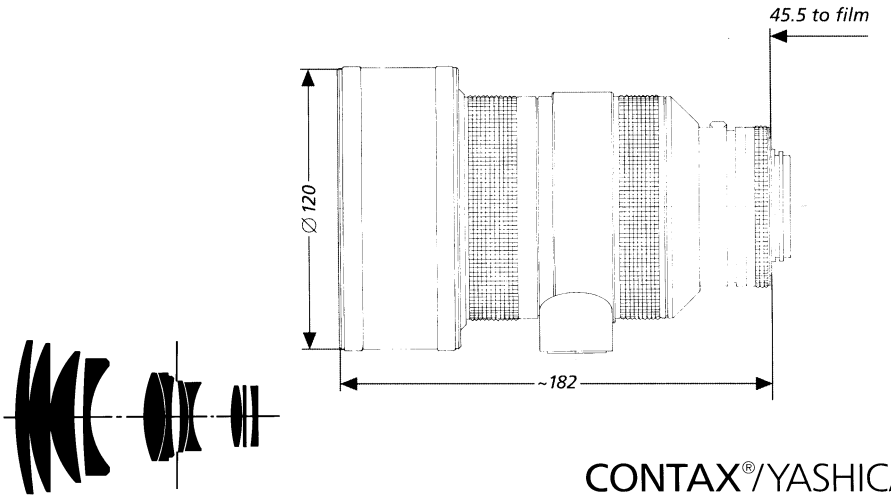
Aposonnar® T* f/2 - 200 mm



CONTAX®/YASHICA® mount

This 200 mm **Aposonnar**® T* f/2 telephoto lens from Carl Zeiss with an extremely high speed provides superb image quality. As indicated by the term "Apo", residual chromatic aberration has been drastically reduced - as in the 300 mm **Tele-Apotessar**® T* f/2.8 lens from Carl Zeiss - by the use of fluophosphate glass resulting in such superb sharpness and brilliance. Like the 300 mm **Tele-Apotessar**® T* f/2.8 lens, this **Aposonnar**® T* lens features an internal focusing system.

Cat. No. of lens:	**10 45 48**
Number of elements:	10 (+ filter)
Number of groups:	8 (+ filter)
Max. aperture:	f/2
Focal length:	199.9 mm
Negative size:	24 x 36 mm
Angular field 2w:	12º diagonal
Mount:	focusing mount with bayonet; TTL metering either at full aperture or in stopped-down position. Aperture priority/Shutter priority/ Automatic programs (Multi-Mode Operation) Built in lens shade.
Aperture scale:	2 - 2.8 - 4 - 5.6 - 8 - 11 - 16 - 22
Filter connection:	additional insertable filter
Weight:	approx. 2690 g
Focusing range:	∞ to 1.8 m (internal focusing)
Entrance pupil:	
Position:	200.4 mm behind the first lens vertex
Diameter:	98 mm
Exit pupil:	
Position:	55 mm in front of the last lens vertex
Diameter:	57.7 mm
Position of principal planes:	
H:	50 mm in front of the first lens vertex
H':	140.8 mm in front of the last lens vertex
Back focal distance:	59.7 mm
Distance between first and last lens vertex:	164 mm

Performance data:

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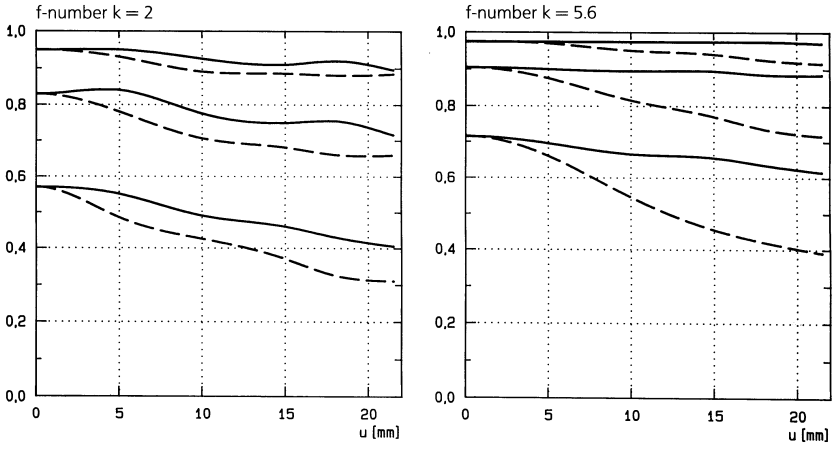
1. MTF Diagrams

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.

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

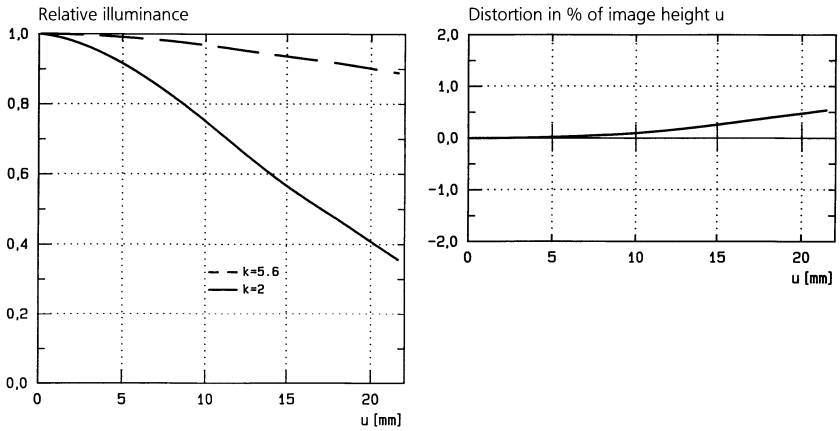


2. Relative illuminance

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.



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