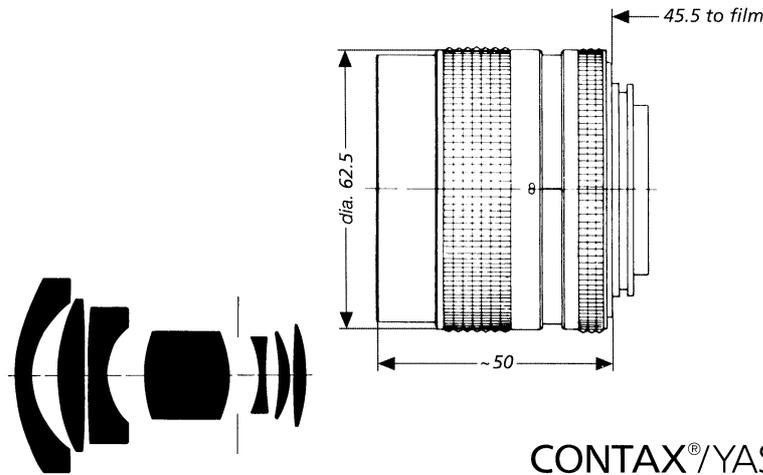


Distagon® T* f/2.8 - 28 mm



CONTAX®/YASHICA® mount

This **Distagon**® lens for **Contax**® 35 mm reflex cameras has been developed by Zeiss for all those who need a compact lens with an angular field of 74° and high image quality, but who do not require extremely high speed. This lens therefore meets the request voiced by many photographers for a lens with a relatively wide angular field and an initial aperture of f/2.8 which is perfectly adequate for most purposes. As the name **Distagon**® indicates, this is a lens where the distance between the last lens surface and the film plane is longer than the focal length, allowing unobstructed motion of the reflex mirror.

This lens therefore belongs to the class of so-called retrofocus-type lenses. The lens is a full-fledged member of the **Distagon**® family and displays excellent image quality and remarkable image field illumination even at full aperture. The distance between the first and the last lens vertex is exceptionally short.

Like its sister lens with a focal length of 35 mm, the applications of this **Distagon**® lens are so varied that it can be described as a universal lens for all fields of photography.

Cat. No. of lens:	10 48 55	Filter connection:	clip-on-filter, diameter 59 mm
Number of elements:	7		screw-in type, thread M 55 x 0.75
Number of groups:	7	Weight:	approx. 280 g
Max. aperture:	f/2.8	Focusing range:	∞ to 0.25 m
Focal length:	28.5 mm	Entrance pupil:	
Negative size:	24 x 36 mm	Position:	22.9 mm behind first lens vertex
Angular field 2w:	75° diagonal	Diameter:	10.0 mm
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)	Exit pupil:	
		Position:	16.3 mm in front of last lens vertex
		Diameter:	19.3 mm
		Position of principal planes:	
		H:	36.4 mm behind first lens vertex
		H':	9.4 mm behind last lens vertex
Aperture scale:	2.8 - 4 - 5.6 - 8 - 11 - 16 - 22	Back focal distance:	37.8 mm
		Distance between first and last lens vertex:	54.0 mm



Performance data:

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Cat. No. 10 48 55

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.

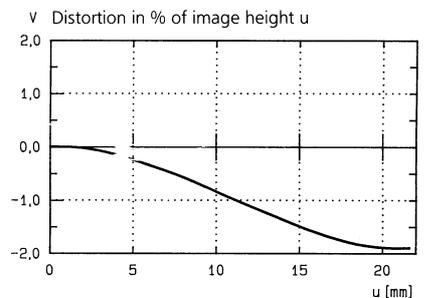
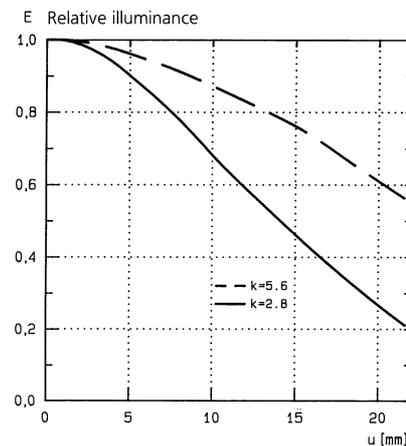
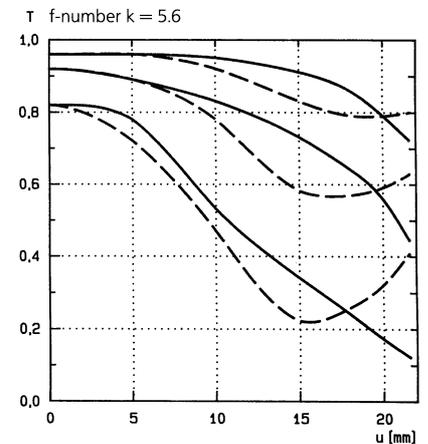
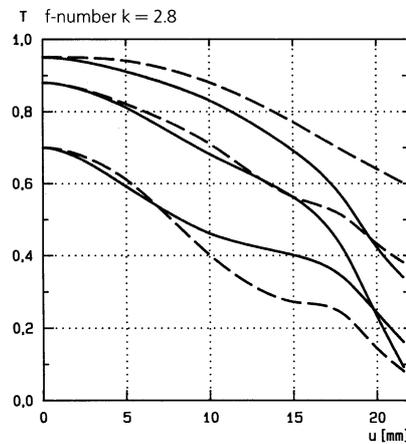
2. Relative illuminance

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.

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.

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



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Subject to change.