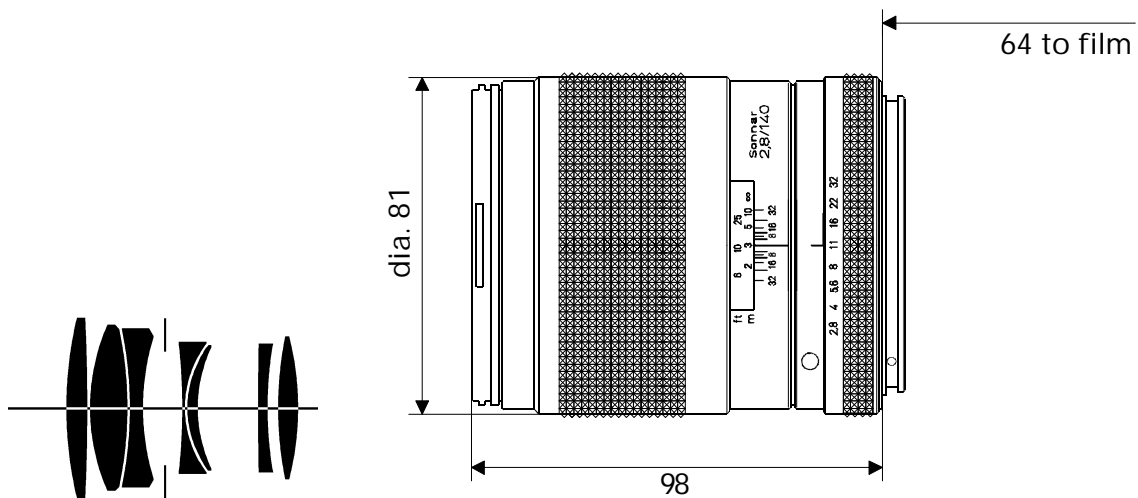


# Sonnar® T\* 2.8/140



CONTAX® 645

At a focal length of twice the format diagonal the **Sonnar® T\* 2.8/140** lens is the first choice for pleasing head and shoulders portraits of people. Also the **Sonnar® T\* 2.8/140** lens is a general purpose telephoto lens for handheld shots in travel, sports, fashion, editorial and theatrical photography, to mention just a few. The Contax® 645 autofocus further adds tremendously to the versatility of this lens. Size and weight have been kept low to make it an ideal travel companion on scenic landscape photo assignments and calendar productions. The optical system of the **Sonnar® T\* 2.8/140** lens was designed using the latest technology, incorporating internal focusing (IF) and the most recent optical glass types.

This results in a telephoto lens with excellent performance. A good tripod is recommended to bring the high image quality of the **Sonnar® T\* 2.8/140** lens onto film. The lens can be used with professional results even at full aperture. Image definition is so evenly distributed over the entire frame and the distortion is so well controlled that the **Sonnar® T\* 2.8/140** lens can deliver professional medium format product shots – and this at a rapid pace and in a cost effective way. Preferred use: portraits of all kinds, travel, scenic landscapes, beauty, sports, theatrical and stage photography

<b>Cat. No. of lens:</b>	<b>10 11 38</b>
Number of elements:	7
Number of groups:	5
Max. aperture:	1:2.8
Focal length:	140.1mm
Negative size:	41.5 x 56mm
Angular field 2w:	28°
Mount:	Contax 645 Mount
Filter connection:	screw-in type, thread M72x0.75
Focusing range:	∞ to 1.3m
Aperture scale:	2.8 - 4 - 5.6 - 8 - 11 - 16 - 22 - 32
Weight:	approx. 688 g

Entrance pupil <sup>*</sup> :	
Position:	27.3mm behind the first lens vertex
Diameter:	49.3mm
Exit pupil <sup>*</sup> :	
Position:	44.2mm in front of the last lens vertex
Diameter:	48.6mm
Position of principal planes <sup>*</sup> :	
H:	23.2mm behind the first lens vertex
H':	48.2mm in front of the last lens vertex
Back focal distance:	91.9mm
Distance between first and last lens vertex:	66.2mm

<sup>\*</sup> at ∞



# Performance data:

## Sonnar® T\* 2.8/140

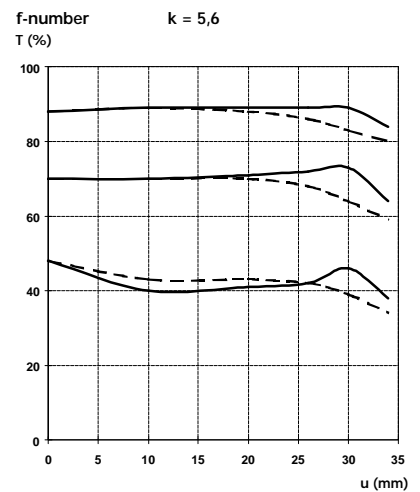
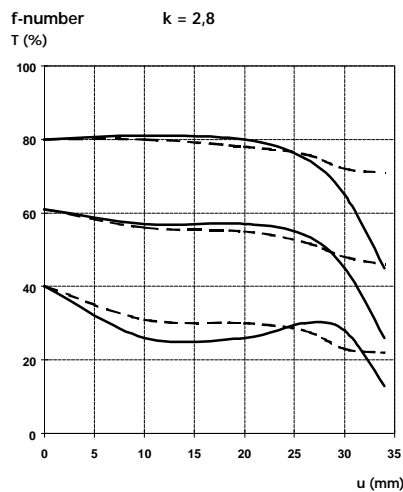
### Cat. No. 10 11 38

#### 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.

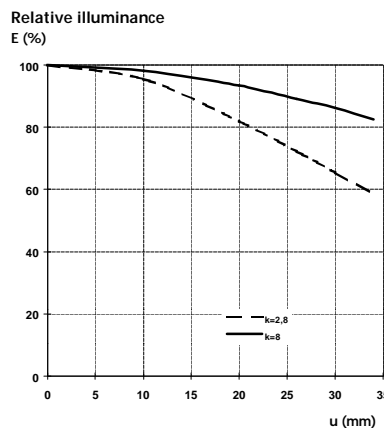
Modulation transfer  $T$  as a function of image height  $u$ .  
White light. Spatial frequencies  $R = 10, 20$  and  $40$  cycles/mm

Slit orientation: — sag — tan



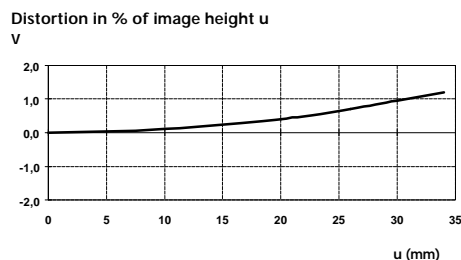
#### 2. Relative illuminance

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 change.  
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