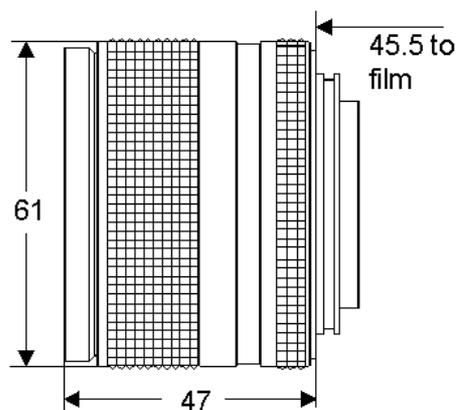
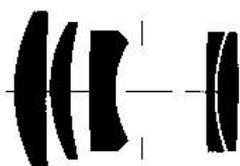


# Sonnar<sup>®</sup> T\* 2.8/85



**CONTAX<sup>®</sup>/YASHICA<sup>®</sup> mount**

The Carl Zeiss **Sonnar<sup>®</sup> T\* 2.8/85** lens is the most compact telephoto lens in the Contax SLR system. It is as small and lightweight as a 50 mm f/1.4 standard lens. And the price is equally attractive. Thus it is a great lens for travelling with the Contax and it is widely used in applications like photojournalism. 85 mm is a very popular and flexible focal length for portrait photography, too, especially on location.

The Carl Zeiss **Sonnar<sup>®</sup> T\* 2.8/85** lens delivers stunning sharpness and contrast - even at full aperture of f/2.8. In combination with modern color films or professional digital receivers this lens can produce photos with details delivered so clear that the images can be easily printed in full page size -

even two-page spreads are possible - within high quality brochures and on covers of glossy magazines. The results are convincing.

The Carl Zeiss **Sonnar<sup>®</sup> T\* 2.8/85** lens comes with a precision barrel made of metal. This ensures smooth and precise focusing and long lasting performance, even if the lens is used extensively and is subjected to considerable fluctuations of temperature and humidity which tends to happen quite often in travel and photojournalistic photography. The Carl Zeiss **Sonnar<sup>®</sup> T\* 2.8/85** lens is a must-have item for photographers seeking high performance in a small and lightweight package.

|   |   |   |  |
|---|---|---|--|
| <b>Cat. No. of lens</b>   | <b>10 11 11</b>                           |   |  |
| Number of elements  | 5   | Close limit field size                      | 223 mm x 333 mm                          |
| Number of groups  | 4   | Max. scale                                  | 1 : 9.3                                  |
| Max. aperture   | f/2.8                                     | Entrance pupil*                             |  |
| Focal length  | 87.6 mm                                   | Position                                    | 36.6 mm behind the first lens vertex     |
| Negative size   | 24 x 36 mm                                | Diameter                                    | 31.2 mm                                  |
| Angular field*  | width 23°, height 16°,<br>diagonal 2w 27° | Exit pupil*                                 |  |
| Min. aperture   | 22  | Position                                    | 20.5 mm in front of the last lens vertex |
| Camera mount  | Contax/Yashica mount                      | Diameter                                    | 22.3 mm                                  |
| Filter connection   | M 55 x 0.75                               | Position of principal planes*               |  |
| Focusing range  | infinity to 1 m                           | H   | 0.6 mm in front of the first lens vertex |
| Working distance (between mechanical front end of lens and subject) | 0.9 m                                     | H'  | 46.6 mm in front of the last lens vertex |
|   |   | Back focal distance                         | 41.0 mm                                  |
|   |   | Distance between first and last lens vertex | 47.0 mm                                  |
|   |   | Weight                                      | 260 g                                    |

\* at infinity



Performance data:

**Sonnar**<sup>®</sup> T\* 2.8/85

Cat. No. 10 11 11

### 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.

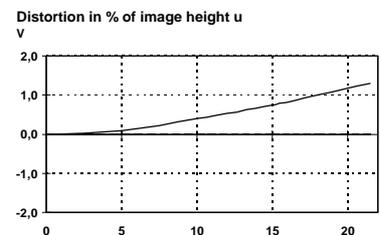
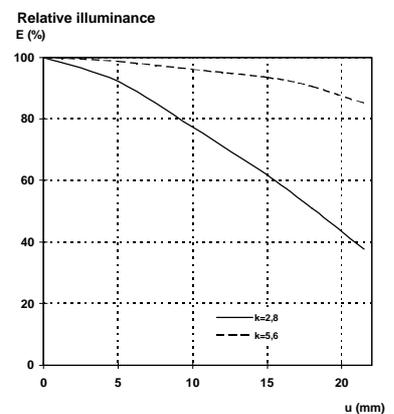
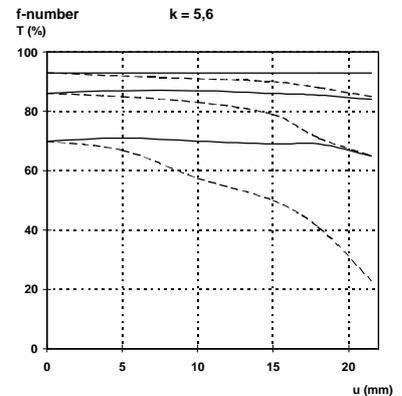
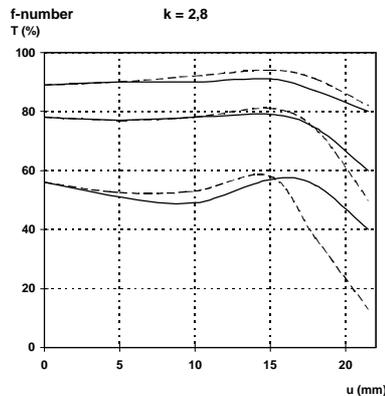
### 2. Relative illuminance

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.



Subject to change.

Printed in Germany 31.07.2000



**Carl Zeiss**  
Photoobjektive  
D-73446 Oberkochen  
Telephone (07364) 20-6175  
Fax (07364) 20-4045  
eMail: photo@zeiss.de  
http://www.zeiss.de