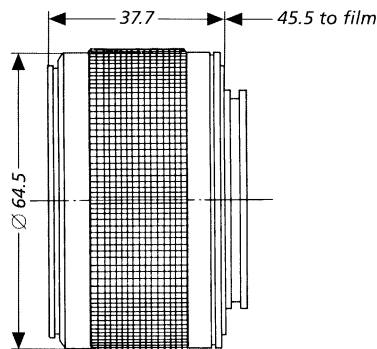
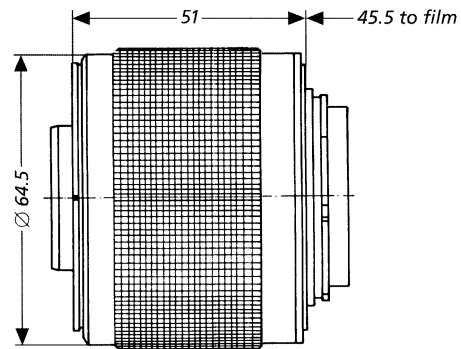


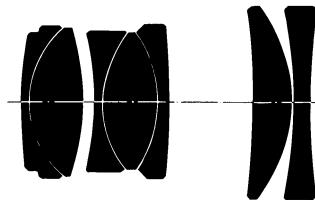
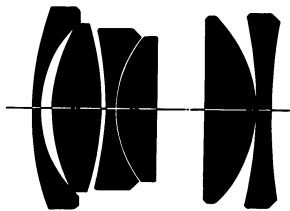
Mutar® I 2x T*



Mutar® II 2x T*



CONTAX®/YASHICA® mount



The **Mutar**® 2x converters from Carl Zeiss for the lens range for **Contax**® SLR cameras are inserted between the camera and the lens and double the focal length of the lens. This reduces the relative aperture set on the lens by two f-stops. Hence exposure time is quadrupled.

The use of **Mutar**® converters considerably increases the range of usable focal lengths. When used in combination with the lenses recommended, their very good image quality and low weight make them an extremely useful addition to the lens range for **Contax**® SLR cameras.

| | | |
|--|---|---------------------------------|
| Cat. No. of lens: | 10 43 31 | 10 43 30 |
| Number of elements: | 6 | 7 |
| Number of groups: | 5 | 4 |
| Relative aperture: | Reduction of lens aperture set by a factor of 2 | 2x |
| Increase in focal length: | 2x | 2x |
| Negative format: | 24 x 36 mm | 24 x 36 mm |
| Mount: | Bayonet mount, TTL metering at full aperture or in stopped-down position. | Visible spectrum |
| Spectral range: | Visible spectrum | No major chages. See lens used. |
| Focusing range: | No major chages. See lens used. | No major chages. See lens used. |
| Distance between first and last lens vertex: | 33.6 mm | 51.8 mm |
| Weight: | approx. 250 g | approx. 300 g |

ZEISS

Possibilities of combining
Carl Zeiss lenses with **Mutar®** converters
for use with the **Contax®** SLR camera system

| Lens | Mutar® I, 2x, T* no. 10 43 31 | Mutar® II, 2x, T* no. 10 43 30 |
|-----------------------------------|----------------------------------|-----------------------------------|
| 15 mm Distagon® f/3.5 | 2 | 3 |
| 16 mm F-Distagon® f/2.8 | 2 | 3 |
| 18 mm Distagon® f/4 | 2 | 3 |
| 21 mm Distagon® f/2.8 | 2 | 3 |
| 25 mm Distagon® f/2.8 | 2 | 3 |
| 28 mm Distagon® f/2 | 2 | 3 |
| 28 mm Distagon® f/2.8 | 2 | 3 |
| 35 mm Distagon® f/1.4 | 2 | 3 |
| 35 mm Distagon® f/2.8 | 2 | 3 |
| 35 mm PC-Distagon® f/2.8 | 2 | 3 |
| 45 mm Tessar® f/2.8 | 1 | 3 |
| 50 mm Planar® f/1.4 | 1 | 3 |
| 50 mm Planar® f/1.7 | 1 | 3 |
| 60 mm Makro-Planar® f/2.8 | 1* | 3 |
| 60 mm Makro-Planar® C f/2.8 | 1* | 3 |
| 85 mm Planar® f/1.2 | 1 | 3 |
| 85 mm Planar® f/1.4 | 1 | 3 |
| 85 mm Sonnar® f/2.8 | 1 | 3 |
| 100 mm Planar® f/2 | 1 | 2 |
| 100 mm Sonnar® f/3.5 | 1 | 3 |
| 100 mm Makro-Planar® f/2.8 | 1* | 3 |
| 100 mm S-Planar® f/4 | 3 | 3 |
| 135 mm Planar® f/2 | 1 | 2 |
| 135 mm Sonnar® f/2.8 | 2 | 1 |
| 180 mm Sonnar® f/2.8 | 2 | 1 |
| 200 mm Aposonnar® f/2 | 2* | 1 |
| 200 mm Tele-Tessar® f/3.5 | 1 | 3 |
| 200 mm Tele-Tessar® f/4 | 2* | 1 |
| 300 mm Tele-Apotessar® f/2.8 | 2 | 1 |
| 300 mm Tele-Tessar® f/4 | 2* | 1 |
| 28-85 mm Vario-Sonnar® f/3.3-4 | 1 | 3 |
| 35-70 mm Vario-Sonnar® f/3.4 | 1 | 3 |
| 35-135 mm Vario-Sonnar® f/3.3-4.5 | 2** | 3 |
| 40-80 mm Vario-Sonnar® f/3.5 | 1 | 3 |
| 70-210 mm Vario-Sonnar® f/3.5 | 2 | 3 |
| 80-200 mm Vario-Sonnar® f/4 | 2 | 3 |
| 500 mm Mirotar® f/4.5 | 2 | 1 |
| 1000 mm Mirotar® f/5.6 | 2 | 1 |

1. Recommended combination
2. Possible combination but with optical limitations
3. Combination not possible for mechanical reasons

* When used for extreme close-up photography or macrophotography, minor vignetting can occur.

** Not to be recommended because of vignetting



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

Subject to change.