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**The PRO-TESSARS  
for the CONTAFLEX  
III, IV, rapid and super  
Instructions for use**



**Zeiss Ikon AG. Stuttgart**



## PRO-TESSAR components

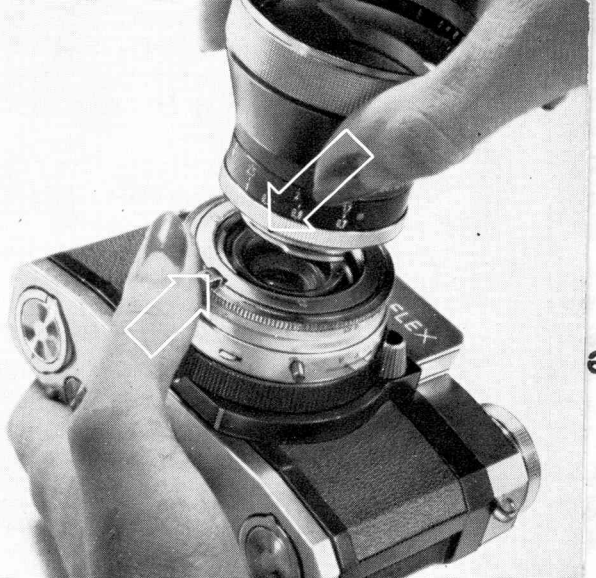
The CONTAFLEX III, IV, rapid and super cameras are supplied with f/2.8-50 mm ZEISS TESSAR lenses with interchangeable front elements. By adding a 5-element wide-angle or a 5-element portrait (telephoto) component to the three remaining elements in the camera, you convert the standard lens into

PRO-TESSAR f/4-35 mm wide-angle lens  
or PRO-TESSAR f/4-85 mm portrait or telephoto lens.

These lenses are colour-corrected and every air-to-glass surface is hard-coated. (Anti-reflection coating). The PRO-TESSARS do not call for an increase in exposure and the engraved f/stops on the shutter housing equally apply to 35, 50 and 85 mm focal length with the exception of the f/2.8 setting which cannot be used with 35 and 85 mm PRO-TESSARS.

## Removing and mounting front lens components

The interchangeable components are fitted into sturdy bayonet mounts for fast interchangeability and accurate seating. Fig. 1 shows how to hold the CON-TAFLEX camera safely. To remove the 50 mm front element or PRO-TESSAR from the camera, press the safety catch with your thumb in the direction of the lens



mount, then turn the component anti-clockwise as far as it will go. To insert an alternate front component into the shutter housing, place the red dot on the safety catch opposite the red dot on the lens mount – marked by the arrows in Fig. 1 – now press the component in and turn clockwise, until the safety catch engages with a click. For better care of your lenses, be careful not to touch the polished surfaces. When not in use, store the PRO-TESSARS in their plastic containers. We recommend the special leather carrying case with shoulder strap for field use (see page 12).

## **Viewing and focusing with PRO-TESSAR components**

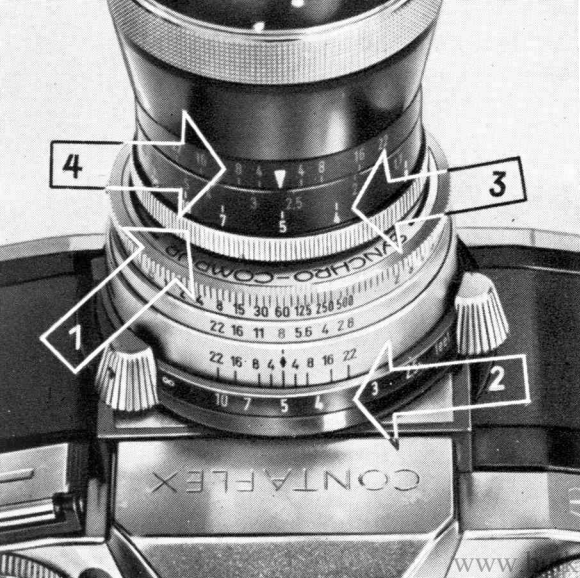
The CONTAFLEX viewfinder gives you a correct and parallax-free image with either the 35, 50 or 85 mm component. This is the great advantage of the single-lens reflex principle. There is no difference in focusing the 50 mm standard lens or one of the PRO-TESSARS. Align

the subject in the split-image field or focus the lens on the ground-glass screen, whichever is more convenient. Almost instantaneously the rangefinder will indicate correct focus, and you are ready to take the picture.

Note: The milled ring of the PRO-TESSAR is not coupled to the rangefinder; therefore, focus any PRO-TESSAR with the two focusing knobs of the camera.

### **Distance and depth of field readings with PRO-TESSARS** (Fig. 2)

The 35 mm and 85 mm PRO-TESSARS have three sets of scales, namely, a white and a red footage scale which are combined on a computer ring (3) and a depth of field scale on the lens mount (4). The depth of field scale comprises an indicator and numbers corresponding to lens openings which are arranged on either side of the indicator.



**Distance readings with the 35 mm PRO-TESSAR:** Let's assume that the lens is focused on a particular subject and you wish to determine the camera-to-subject distance. In Fig. 2 the distance scale of the camera (2) reads 5 feet, but you did not use the 50 mm standard lens for which this scale was calibrated. To convert this reading to 35 mm focal length, turn the milled ring (1) until the indicator points to the

Fig. 2

white 5-foot mark. In this position the red scale reads 2'7"; the actual distance.

**Distance readings with the 85 mm PRO-TESSAR:** We again assume that the lens is focused on the subject. In this instance, the camera scale (2) reads 7 feet. To convert this reading to 85 mm focal length, turn the milled ring (1) until the indicator points to the white 7 foot mark. In this position the red scale reads 18 feet actual distance.

Note: By turning the milled ring (1), you do not throw the lens out of focus.

**Depth of field Readings:** The depth of field is the "range of sharpness" in a picture and this "range of sharpness" covers a certain area in front of and behind the subject. The lens must be focused on the subject. The depth of field scale permits approximate readings at a



glance for a certain distance and a pre-selected lens stop. You find the depth of field by taking two readings on the red footage scale at the corresponding f/stop numbers on either side of the indicator. Check the following examples:

- 35 mm **PRO-TESSAR**

Actual distance: 3 feet

Depth of field: 2' 5" to 3' 10"

Pre-selected f/stop: f/8

85 mm **PRO-TESSAR**

Actual distance: 15 feet

Depth of field: 12 to 20 feet

Pre-selected f/stop: f/8

The tables on pages 9 and 10 give complete data.

Depth of field table for PRO-TESSAR f/4 35 mm.

Dist.	f/4	f/5.6	f/8	f/11	f/16	f/22
∞	22' 7" - ∞	16' 3" - ∞	11' 6" - ∞	8' 5" - ∞	5' 11" - ∞	4' 4 <sup>3</sup> / <sub>4</sub> " - ∞
20'	10' 9" - 171' 4"	9' 1" - ∞	7' 4" - ∞	6' - ∞	4' 7" - ∞	3' 7 <sup>1</sup> / <sub>4</sub> " - ∞
10'	7' 1" - 17' 6"	6' 3 <sup>3</sup> / <sub>4</sub> " - 25' 1"	5' 5 <sup>1</sup> / <sub>2</sub> " - 74' 6"	4' 8 <sup>1</sup> / <sub>4</sub> " - ∞	3' 9 <sup>1</sup> / <sub>2</sub> " - ∞	3' 1 <sup>1</sup> / <sub>2</sub> " - ∞
7'	5' 5 <sup>1</sup> / <sub>4</sub> " - 9' 10"	5' - 11' 10"	4' 5 <sup>1</sup> / <sub>2</sub> " - 17' 1"	3' 11 <sup>1</sup> / <sub>2</sub> " - 38' 5"	3' 3 <sup>3</sup> / <sub>4</sub> " - ∞	2' 9 <sup>1</sup> / <sub>2</sub> " - ∞
5'	4' 2 <sup>1</sup> / <sub>4</sub> " - 6' 3"	3' 11" - 6' 11 <sup>3</sup> / <sub>4</sub> "	3' 7 <sup>1</sup> / <sub>4</sub> " - 8' 5"	3' 3" - 11' 5"	2' 10" - 29' 5"	2' 5 <sup>1</sup> / <sub>2</sub> " - ∞
4'	3' 5 <sup>3</sup> / <sub>4</sub> " - 4' 8 <sup>3</sup> / <sub>4</sub> "	3' 3 <sup>1</sup> / <sub>2</sub> " - 5' 1 <sup>1</sup> / <sub>2</sub> "	3' 1" - 5' 10"	2' 10" - 7' 1"	2' 6" - 11' 2"	2' 2 <sup>1</sup> / <sub>2</sub> " - 38' 10"
3'	2' 8 <sup>1</sup> / <sub>2</sub> " - 3' 4 <sup>1</sup> / <sub>2</sub> "	2' 7 <sup>1</sup> / <sub>4</sub> " - 3' 6 <sup>3</sup> / <sub>4</sub> "	2' 5 <sup>3</sup> / <sub>4</sub> " - 3' 10 <sup>1</sup> / <sub>4</sub> "	2' 3 <sup>3</sup> / <sub>4</sub> " - 4' 4"	2' 1 <sup>1</sup> / <sub>4</sub> " - 5' 6 <sup>1</sup> / <sub>4</sub> "	1' 11" - 8' 3"
2.5'	2' 3 <sup>3</sup> / <sub>4</sub> " - 2' 9"	2' 2 <sup>3</sup> / <sub>4</sub> " - 2' 10 <sup>1</sup> / <sub>4</sub> "	2' 1 <sup>1</sup> / <sub>2</sub> " - 3' 1 <sup>1</sup> / <sub>2</sub> "	2' 1 <sup>1</sup> / <sub>4</sub> " - 3' 3 <sup>3</sup> / <sub>4</sub> "	1' 10 <sup>1</sup> / <sub>2</sub> " - 3' 11"	1' 8 <sup>1</sup> / <sub>2</sub> " - 5' 3 <sup>3</sup> / <sub>4</sub> "
2'	1' 10 <sup>1</sup> / <sub>2</sub> " - 2' 1 <sup>3</sup> / <sub>4</sub> "	1' 10" - 2' 2 <sup>1</sup> / <sub>2</sub> "	1' 9 <sup>1</sup> / <sub>4</sub> " - 2' 3 <sup>1</sup> / <sub>2</sub> "	1' 8 <sup>1</sup> / <sub>2</sub> " - 2' 5 <sup>1</sup> / <sub>4</sub> "	1' 7 <sup>1</sup> / <sub>4</sub> " - 2' 8 <sup>3</sup> / <sub>4</sub> "	1' 6" - 3' 2 <sup>1</sup> / <sub>2</sub> "
1.7'	1' 7 <sup>1</sup> / <sub>2</sub> " - 1' 9 <sup>1</sup> / <sub>2</sub> "	1' 7" - 1' 10"	1' 6 <sup>1</sup> / <sub>2</sub> " - 1' 10 <sup>3</sup> / <sub>4</sub> "	1' 6" - 2'	1' 5" - 2' 2"	1' 4" - 2' 5"
1.5'	1' 5 <sup>1</sup> / <sub>4</sub> " - 1' 6 <sup>3</sup> / <sub>4</sub> "	1' 5" - 1' 7 <sup>1</sup> / <sub>4</sub> "	1' 4 <sup>1</sup> / <sub>2</sub> " - 1' 7 <sup>3</sup> / <sub>4</sub> "	1' 4 <sup>1</sup> / <sub>4</sub> " - 1' 8 <sup>1</sup> / <sub>2</sub> "	1' 3 <sup>1</sup> / <sub>2</sub> " - 1' 9 <sup>3</sup> / <sub>4</sub> "	1' 2 <sup>3</sup> / <sub>4</sub> " - 2'
1.3'	1' 3 <sup>1</sup> / <sub>8</sub> " - 1' 4 <sup>1</sup> / <sub>8</sub> "	1' 2 <sup>7</sup> / <sub>8</sub> " - 1' 4 <sup>3</sup> / <sub>8</sub> "	1' 2 <sup>5</sup> / <sub>8</sub> " - 1' 4 <sup>3</sup> / <sub>4</sub> "	1' 2 <sup>1</sup> / <sub>4</sub> " - 1' 5 <sup>1</sup> / <sub>4</sub> "	1' 1 <sup>3</sup> / <sub>4</sub> " - 1' 6 <sup>1</sup> / <sub>8</sub> "	1' 1 <sup>1</sup> / <sub>4</sub> " - 1' 7 <sup>3</sup> / <sub>8</sub> "

The depth of field is measured from the film plane.

Depth of field table for PRO-TESSAR f/4 85 mm.

Dist.	f/4	f/5.6	f/8	f/11	f/16	f/22
∞	117'8" - ∞	84'2" - ∞	59'1" - ∞	43' 1" - ∞	29'10" - ∞	21'10" - ∞
80'	47' 9" - 248'	41'2" - 1593'	34'1" - ∞	28' 1" - ∞	21' 9" - ∞	17' 1" - ∞
50'	35' 3" - 86'5"	31'7" - 118'8"	27'3" - 321'	23' 3" - ∞	18' 9" - ∞	15' 3" - ∞
30'	24' - 40'	22'3" - 46' 2"	20'1" - 60'2"	17'10" - 96'10"	15' 1" - ∞	12' 9" - ∞
20'	17' 2" - 23'11"	16'3" - 26'	15'1" - 29'10"	13'10" - 36'8"	12'1½" - 59'2"	10' 6¾" - 231'
15'	13' 4½" - 17'1"	12'10" - 18'1"	12'1" - 19'10"	11' 3½" - 22'8"	10'2" - 29'8"	9' 1" - 47'7"
12'	10'11½" - 13'3¼"	10'7" - 13'10¼"	10'1" - 14'10¼"	9' 6" - 16'4"	8'8¼" - 19' 7"	7'10¾" - 25'9"
10'	9'3¼" - 10'10¼"	9' - 11' 3"	8'7¾" - 11'10½"	8' 2¾" - 12'9½"	7'7½" - 14' 7¾"	7' - 17'9½"
8'	7' 6½" - 8'6¼"	7'4½" - 8' 9"	7'1½" - 9' 1½"	6'10¼" - 9'7¾"	6'5¼" - 10' 7¾"	6' - 12'2"
7'	6' 8" - 7'4¾"	6'6½" - 7' 6¾"	6'4" - 7'10"	6' 1½" - 8'2½"	5'9½" - 8'10¾"	5' 5½" - 9'11"
6'	5' 9" - 6'3½"	5'7¾" - 6' 5"	5'6¼" - 6' 7¼"	5' 4¼" - 6'10"	5'1¼" - 7' 4"	4'10" - 7'11¾"

The depth of field is measured from the film plane.

## Accessories

We supply an attractive leather carrying case with plastic insert which accommodates the 35 mm and 85 mm PRO-TESSARS, the 50 mm front element, the lens shade for the 50 mm TESSAR lens and one PROXAR close-up lens. The two bayonet mounts in the case accept the PRO-TESSAR components and when inserting them, make sure that the red dot on the lens mount is opposite the red dot on the bayonet mount in the case; then turn clockwise. The plastic insert for the 50 mm front element, lens shade and PROXAR lens can be purchased separately. When sliding this insert into the metal clips inside the case, a slight pull on the front of the case is necessary to provide enough clearance for the locking pin. This pin secures the insert in the front. The metal clamp which you receive with the insert is placed over the clip near the hinges of the case. Now the insert is securely locked at both ends.



The elastic bands in the cover of the case accept two 60 mm filters without their plastic containers.

## Filters

ZEISS IKON filters are furnished with anti-reflection coating; all mounts are precision-made for accurate fitting. There are two complete sets of filters for PRO-TESSARS: In 49 mm screw-in mounts for 35 mm PRO-TESSAR and in 60 mm screw-

Fig. 3

on mounts for 85 mm PRO-TESSAR. Each set includes the following types: yellow, yellow-green; orange, red, UV and IKOLOR A, B, F. With the step-up ring over the 35 mm PRO-TESSAR, 60 mm filters can be used for 35 mm and 85 mm PRO-TESSAR lenses.

Note: 60 mm filters do not screw into the PRO-TESSAR mount, but over the knurled part of the outer mount.

## **Lens shade for the 85 mm PRO-TESSAR**

A lens shade guards against stray light in back-light exposure and night scenes, thereby increasing the brilliance of your pictures. It also protects the lens surface from rain, snow and ocean spray. The lens shade for the 85 mm PRO-TESSAR screws over the lens like a filter, and it can also be used with a ZEISS IKON filter fitted over the

lens. There is no lens shade for the 35 mm PRO-TESSAR at the present time. We suggest the leather case for this lens shade which is secured to the shoulder strap of the PRO-TESSAR carrying case.

## **How to clean a lens**

First remove any dust particles from the lens with a soft camel's hair brush. Then wipe the surface with a piece of soft clean linen or lens cleaning tissue constantly breathing on the lens. Protect your lenses as much as possible and reduce wiping of the highly polished surfaces to a minimum.

**Serial numbers:** Every PRO-TESSAR has a serial number engraved on its mount. It is strongly recommended that a record should be kept of these numbers, which may be of valuable aid in establishing ownership in cases of loss or theft.

**Photographic advice:** If you want expert advice ask your photo-dealer who will be always glad to be of assistance.



Subject to changes in the interest of technical progress.