

**YASHICA**

# Carl Zeiss Interchangeable Lenses





# Interchangeable Carl Zeiss T\* (T-Star) Lenses

\* Specifications and exterior design subject to change without prior notice.

Lens:	Elements-Groups	Angular Field	Minimum Focus	Aperture Range	Lens Pouch	Diameter x Length	Weight
F-Distagon T* f/2.8 16 mm ( Fisheye )	8 - 7	180°	0.3 m ( 1 ft)	f/2.8 - f/22	No. 2	70.0 x 61.5 mm	460 g
Distagon T* f/3.5 15 mm	13 - 12 (F)	110°	0.16 m (6")	f/3.5 - f/22	No. 4	83.5 x 94.0 mm	815 g
Distagon T* f/4 18 mm	10 - 9 (F)	100°	0.3 m ( 1 ft)	f/4 - f/22	No. 2	70.0 x 51.5 mm	350 g
Distagon T* f/2.8 25 mm	8 - 7	80°	0.25 m (10")	f/2.8 - f/22	No. 1	62.5 x 56.0 mm	360 g
Distagon T* f/2 28 mm	9 - 8 (F)	74°	0.24 m (10")	f/2 - f/22	No. 3	62.5 x 76.0 mm	530 g
Distagon T* f/2.8 28 mm	7 - 7	74°	0.25 m (10")	f/2.8 - f/22	No. 1	62.5 x 50.0 mm	280 g
Distagon T* f/1.4 35 mm	9 - 8 (A)(F)	62° 30'	0.3 m ( 1 ft)	f/1.4 - f/16	No. 2	70.0 x 76.0 mm	600 g
Distagon T* f/2.8 35 mm	6 - 6	62°	0.4 m ( 1.5 ft)	f/2.8 - f/22	No. 1	62.5 x 46.0 mm	245 g
Tessar T* f/2.8 45 mm	4 - 3	50°	0.6 m ( 2.1 ft)	f/2.8 - f/22	No. 7	60.0 x 18.0 mm	90 g
Planar T* f/1.4 50 mm	7 - 6	45°	0.45 m (1.5 ft)	f/1.4 - f/16	No. 1	62.5 x 41.0 mm	275 g
Planar T* f/1.7 50 mm	7 - 6	45°	0.6 m ( 2 ft)	f/1.7 - f/16	No. 1	61.0 x 36.5 mm	190 g
Planar T* f/1.4 85 mm	6 - 5	28° 30'	1.0 m ( 3.5 ft)	f/1.4 - f/16	No. 2	70.0 x 64.0 mm	595 g
Sonnar T* f/2.8 85 mm	5 - 4	27° 30'	1.0 m ( 3.5 ft)	f/2.8 - f/22	No. 1	62.5 x 46.5 mm	230 g
Planar T* f/2 100 mm	6 - 5	24° 30'	1.0 m ( 3.5 ft)	f/2 - f/22	No. 2	70.0 x 84.0 mm	670 g
Sonnar T* f/3.5 100 mm	5 - 4	24°	1.0 m ( 3.5 ft)	f/3.5 - f/22	No. 1	61.0 x 61.0 mm	285 g
Planar T* f/2 135 mm	5 - 5	18° 30'	1.5 m ( 5 ft)	f/2 - f/22	No. 5	75.0 x 101 mm	830 g
Sonnar T* f/2.8 135 mm	5 - 4	18° 30'	1.6 m ( 5.5 ft)	f/2.8 - f/22	No. 3	68.5 x 93.0 mm	585 g
Sonnar T* f/2.8 180 mm	6 - 5 (F)	14°	1.4 m ( 5 ft)	f/2.8 - f/22	No. 5	78.0 x 131 mm	815 g
Tele-Tessar T* f/3.5 200 mm	6 - 5	12° 40'	1.8 m ( 6 ft)	f/3.5 - f/22	No. 5	77.5 x 121.5 mm	750 g
Tele-Tessar T* f/4 200 mm	6 - 5	12° 40'	1.5 m ( 5 ft)	f/4 - f/32	No. 5	66.5 x 122 mm	550 g
Tele-Tessar T* f/4 300 mm	5 - 5	8° 15'	3.5 m ( 11.5 ft)	f/4 - f/32	No. 6	88.0 x 205 mm	1.2 kg
Vario-Sonnar T* f/3.5 40~80 mm	13 - 9	55° ~ 31°	1.2 m ( 4 ft)	f/3.5 - f/22	No. 3	67.0 x 87.0 mm	605 g
Vario-Sonnar T* f/3.5 70~210 mm	15 - 12	33° ~ 12°	1.8m (6 ft) • Macro (0.3m/M1:2)	f/3.5 - f/22	No. 6	77.0 x 186 mm	1.145 kg
S-Planar T* f/2.8 60 mm ( Macro )	6 - 4	39°	M1:1 (0.24 m)	f/2.8 - f/22	No. 2	75.5 x 74.0 mm	570 g
S-Planar T* f/4 100 mm ( Bellows )	6 - 4	24° 30'/33°	(M1.4:1)	f/4 - f/32	No. 1	62.5 x 48.5 mm	285 g
PC-Distagon T* f/2.8 35 mm ( Shift )	9 - 9 (F)	63°/83°	0.3 m ( 1 ft)	f/2.8 - f/22 (M)	No. 1	70.0 x 85.5 mm	725 g
Mirotar f/4.5 500 mm	5 - 5	5°	3.5 m ( 11.5 ft)	-	-	151 x 225 mm	4.5 kg
Mirotar f/5.6 1000 mm	5 - 5	2° 30' ( 4° 30' )	12.0m ( about ca. 39.5 ft)	-	-	250 x 470 mm	16.5 kg

(F) With Aberration Correction at close range      (A) Aspherical Lens Element      (M) Manual aperture setting

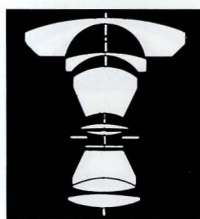
YASHICA

---

## F-Distagon T\* f/2.8 16mm w/CASE

---

3892 4 mm Price



An ultra-wideangle lens of the so-called fisheye type. Features excellent image quality and remarkable field illumination at full aperture. Unusually fast for this type.

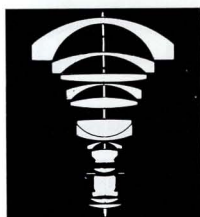
- **Lens Composition:** 8 elements, 7 groups.
- **Angular Field:** 180° ● **Minimum Focus:** 0.3 m (1 ft.).
- **Aperture Range:** f/2.8 — f/22.
- **Diaphragm Action:** fully automatic. ● **Filter:** built-in turret type (UV, Or57, Y50, B11).
- **Lens Shade:** built-in ● **Lens Case:** No. 2, Leather. ● **Lens Cap:** 70 mm slip-on type. ● **Size:** 70 x 61.5 mm (2-3/4 x 2-7/16 in.) ● **Weight:** 460 grams (1 lbs.)

---

## Distagon T\* f/3.5 15mm w/CASE

---

3892 4 mm Price



A sensational ultra-wideangle lens that is highly effective for accentuating perspective for strong spatial impressions. Marginal illumination is unbelievably good when slightly stopped down.

- **Lens Composition:** 13 elements, 12 groups. Correction of aberration at close range with "floating element"
- **Angular Field:** 110° ● **Minimum Focus:** 0.16 m (6 in.)
- **Aperture Range:** f/3.5 — f/22 ● **Diaphragm Action:** fully automatic
- **Filter:** built-in turret type (UV, Or57, Y50, B11).
- **Lens Shade:** built-in ● **Lens Case:** No. 4 Leather
- **Lens Cap:** 83.5 mm slip-on type
- **Size:** 83.5 x 94 mm (3-5/16 x 3-11/16 in.)
- **Weight:** 815 grams (1.8 lbs.)



---

## Distagon T\* f/4 18mm w/CASE

---

Price

Well proven design with excellent imaging performance, exceptional correction of distortion and extremely compact. Performance is superb for close range photography.

● **Lens Composition:** 10 elements, 9 groups  
Correciton of aberration at close range with "floating element" ● **Angular Field:** 100° ● **Minimum Focus:** 0.3 m (1 ft.) ● **Aperture Range:** f/4 – f/22 ● **Diaphragm Action:** fully automatic ● **Filter:** 86 mm with 70/86 mm ring ● **Lens Shade:** used with 70/86 mm ring ● **Lens Case:** No. 2, Leather ● **Lens Cap:** 70 mm slip-on type ● **Size:** 70 x 51.5 mm (2-3/4 x 2 in.) ● **Weight:** 350 grams (12.3 ozs.)



---

## Distagon T\* f/2.8 25mm w/CASE

---

Price

Image quality is excellent over entire format, even at full aperture. Excellent for architectural and landscape photography where wide angular field with true rendition is required.

● **Lens Composition:** 8 elements, 7 groups  
● **Angular Field:** 80° ● **Minimum Focus:** 0.25 m (10 in.) ● **Aperture Range:** f/2.8 – f/22 ● **Diaphragm Action:** fully automatic ● **Filter:** 55 mm screw-in type ● **Lens Shade:** 55 mm G-12 soft lens shade, screw-in types ● **Lens Case:** No. 1, Leather ● **Lens Cap:** 59 mm clip-on type ● **Size:** 62.5 x 56 mm (2-7/16 x 2-3/16 in.) ● **Weight:** 360 grams (12.7 ozs.)

\* Rubber Hood should be used without filter.



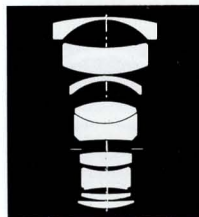


---

## Distagon T\* f/2 28mm w/CASE

---

Price



Amazingly uniform image quality right up to the corners even with the large maximum aperture. An intermediate wideangle lens useful for many applications where a wide angular field is required.

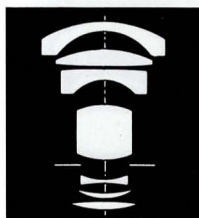
- **Lens Composition:** 9 elements 8 groups. Correction of aberration at close range with "floating element"
- **Angular Field:** 74°
- **Minimum Focus:** 0.24 m (10 in.)
- **Aperture Range:** f/2 – f/22
- **Diaphragm Action:** fully automatic
- **Filter:** 55 mm screw-in type
- **Lens Shades:** 55 mm G-12 Soft lens shade screw-in type; No. 1 Metal Hood (55/86 mm ring.), screw-in type
- **Lens Case:** No. 3 Leather
- **Lens Cap:** 59 mm clip-on type
- **Size:** 62.5 x 76 mm (2-7/16 x 3 in.)
- **Weight:** 530 grams (1.17 lbs.)

---

## Distagon T\* f/2.8 28mm w/CASE

---

Price



Designed for those who demand the highest image quality without the need for extra speed. Imaging performance and image field illumination are remarkable, even at full aperture.

- **Lens Composition:** 7 elements, 7 groups
- **Angular Field:** 74°
- **Minimum Focus:** 0.25 m (10 in.)
- **Aperture Range:** f/2.8 – f/22
- **Diaphragm Action:** fully automatic
- **Filter:** 55 mm screw-in type
- **Lens Shades:** 55 mm G-12 soft lens shade screw-in type; No. 1 Metal Hood (55/86 mm ring.), screw-in type
- **Lens Case:** No. 1 Leather
- **Lens Cap:** 59 mm clip-on type
- **Size:** 62.5 x 50 mm (2-7/16 x 1-15/16 in.)
- **Weight:** 280 grams (9.9 ozs.)



---

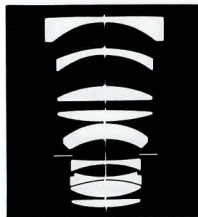
## Distagon T\* f/1.4 35mm w/CASE

---

Price

Image quality is surprisingly high in spite of the 4X greater speed than an f/2.8 lens. Distortion is highly corrected. The wide field of view and great depth-of-focus make this lens useful for many applications.

- **Lens Composition:** 9 elements, 8 groups (1 aspheric surface.) Correction of aberration at close range with "floating element"
- **Angular Field:** 62°30'
- **Minimum Focus:** 0.3 m (12 in.)
- **Aperture Range:** f/1.4 — f/16
- **Diaphragm Action:** fully automatic
- **Filter:** 67 mm screw-in type
- **Lens Shades:** 67 mm G-14 Soft lens shade, screw-in type; No. 2 Metal Hood (67/86 mm), screw-in type
- **Lens Case:** No. 2 Leather
- **Lens Cap:** 70 mm clip-on type
- **Size:** 70 x 76 mm (2-3/4 x 3 in.)
- **Weight:** 600 grams (1.32 lbs.)




---

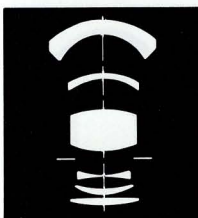
## Distagon T\* f/2.8 35mm w/CASE

---

Price

Designed for those who stress extraordinary image quality in a moderate wideangle rather than high speed. Image field illumination is also excellent, even at full aperture.

- **Lens Composition:** 6 elements, 6 groups
- **Angular Field:** 62°
- **Minimum Focus:** 0.4 m (1.5 ft.)
- **Aperture Range:** f/2.8 — f/22
- **Diaphragm Action:** fully automatic
- **Filter:** 55 mm screw-in type
- **Lens Shades:** 55 mm G-11 Soft lens shade, screw-in type; No. 3 Metal Hood (55/86 mm ring), screw-in type
- **Lens Case:** No. 1 Leather
- **Lens Cap:** 59 mm, clip-on type
- **Size:** 62.5 x 46 mm (2-7/16 x 1-13/16 in.)
- **Weight:** 245 grams (8.6 ozs.)



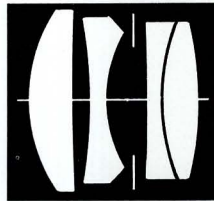
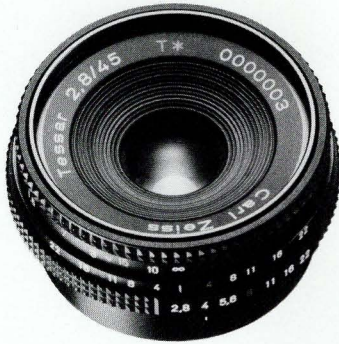


---

## Tessar T\* f/2.8 45mm w/CASE

---

Price



Exceptional sharpness in the classic Tessar 4-element design for extremely small size and light weight. Slightly wider than 'standard' lenses for versatile application in all types of photography.

- **Lens Composition:** 4 elements, 3 groups.
- **Angular Field:** 50° ● **Minimum Focus:** 0.6 m (2.1ft) ● **Aperture Range:** f/2.8 – f/22 ● **Diaphragm Action:** fully automatic ● **Filter Size:** 49mm screw-in type ● **49/55 Ring** for use with 55mm filters and softars. ● **Lens Shade:** 55mm G-11 soft lens shade screw-in type (with 49/55 ring) ● **Size:** 60 x 18mm (2-3/8 x 11/16 in.)
- **Weight:** 90 grams (3.2 ozs.) ● **Lens case:** No. 7, Leather ● **Lens cap:** 49mm, clip-on type

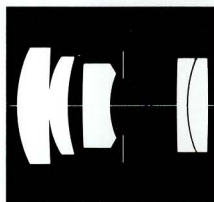
\* Rubber Hood should be used without filter.

---

## Sonnar T\* f/3.5 100mm w/CASE

---

Price



Exceptional reproduction at all apertures and extremely even edge-to-edge illumination make this lens outstanding for medium telephoto or portrait applications. Excellent separation of main subject and background.

- **Lens composition:** 5 elements, 4 groups
- **Angular Field:** 24° ● **Minimum focus:** 1m (3.5ft) ● **Aperture range:** f/3.5–f/22 ● **Diaphragm action:** fully automatic ● **Filter Size:** 55mm screw-in type ● **Lens Shades:** 55mm screw-in type ● **Size:** 61 x 61mm (2-3/8 x 2-3/8 in.) ● **Weight:** 285 grams (10.1 ozs.)
- **Lens case:** No. 1, Leather ● **Lens cap:** 55mm, clip-on type.

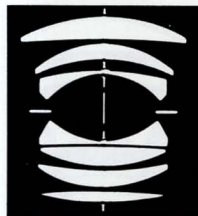


---

## Planar T\* f/1.4 50mm

---

Price



A fast, high-performance standard lens incorporating the latest achievements in optical glass and correction of image errors. Valuable both for fast action and low light levels.

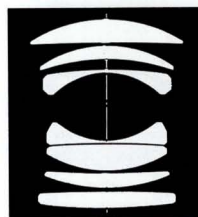
- **Lens Composition:** 7 elements 6 groups
- **Angular Field:** 45°
- **Minimum Focus:** 0.45 m (1.5 ft.)
- **Aperture Range:** f/1.4 – f/16
- **Diaphragm Action:** fully automatic
- **Filter:** 55 mm screw-in type
- **Lens Shades:** 55 mm G-11 Soft lens shade, screw-in type; No. 4 Metal Hood (55/86 mm ring), screw-in type
- **Lens Case:** No. 1 Leather, optional
- **Lens Cap:** 59 mm, clip-on type
- **Size:** 62.5 x 41 mm (2-7/16 x 1-5/8 in.)
- **Weight:** 275 grams (9.7 ozs.)

---

## Planar T\* f/1.7 50mm

---

Price



The newest standard lens in the line-up, featuring the same optical performance as the f/1.4 50 mm lens in a more compact package. Outstanding cost performance.

- **Lens Composition:** 7 elements, 6 groups
- **Angular Field:** 45°
- **Minimum Focus:** 0.6 m (2 ft.)
- **Aperture Range:** f/1.7 – f/16
- **Diaphragm Action:** fully automatic
- **Filter:** 55 mm screw-in type
- **Lens Shades:** 55 mm G-11 Soft lens shade, screw-in type; No. 4 Metal Hood (55/86 mm ring), screw-in type
- **Lens Case:** No. 1 Leather, optional
- **Lens Cap:** 59 mm, clip-on type
- **Size:** 61 x 36.5 mm (2-3/8 x 1-7/16 in.)
- **Weight:** 190 grams (6.7 ozs.)



---

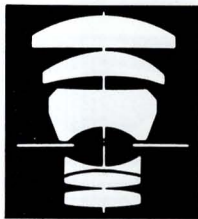
## Planar T\* f/1.4 85mm w/CASE

---

Price

One of the fastest 85 mm lens available for 35 mm SLR cameras. Image performance is excellent even at full aperture. Excellent for both outdoor and indoor photography where light levels may be low.

- **Lens Composition:** 6 elements, 5 groups
- **Angular Field:** 28°30'
- **Minimum Focus:** 1 m (3.5 ft)
- **Aperture Range:** f/1.4 – f/16
- **Diaphragm Action:** fully automatic
- **Filter:** 67 mm screw-in type
- **Lens Shades:** 67 mm G-13 Soft lens shade, screw-in type; No. 4 Metal Hood (67/86 mm ring.), screw-in type
- **Lens Case:** No. 2 Leather
- **Lens Cap:** 70 mm, clip-on type
- **Size:** 70 x 64 mm (2-3/4 x 2-1/2 in.)
- **Weight:** 595 grams (1.3 lbs.)



---

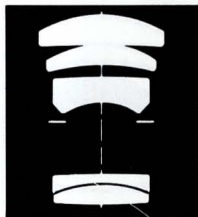
## Sonnar T\* f/2.8 85mm w/CASE

---

Price

A natural choice for those who want outstanding optical performance in a compact design, but are willing to forego a large maximum aperture. Useful for a wide range of applications where a slightly long focus lens is demanded.

- **Lens Composition:** 5 elements, 4 groups
- **Angular Field:** 27°30'
- **Minimum Focus:** 1 m (3.5 ft.)
- **Aperture Range:** f/2.8 – f/22
- **Diaphragm Action:** fully automatic
- **Filter:** 55 mm screw-in type
- **Lens Shades:** 55 mm G-11 Soft lens shade, screw-in type; No. 5 Metal Hood (55/86 mm ring), screw-in type
- **Lens Case:** No. 1, Leather
- **Lens Cap:** 59 mm, clip-on type
- **Size:** 62.5 x 47 mm (2-7/16 x 1-7/8 in.)
- **Weight:** 255 grams (9 ozs.)

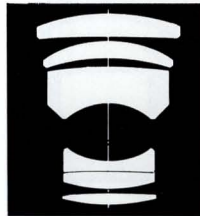


---

**Planar T\* f/2 100mm w/CASE**

---

Price



An extremely fast, high-performance lens, and one of the newest of the Carl Zeiss T\* lenses. Excellent for portraits, landscapes and architecture. Selective focus effects possible due to small depth-of-field at full aperture

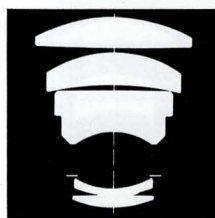
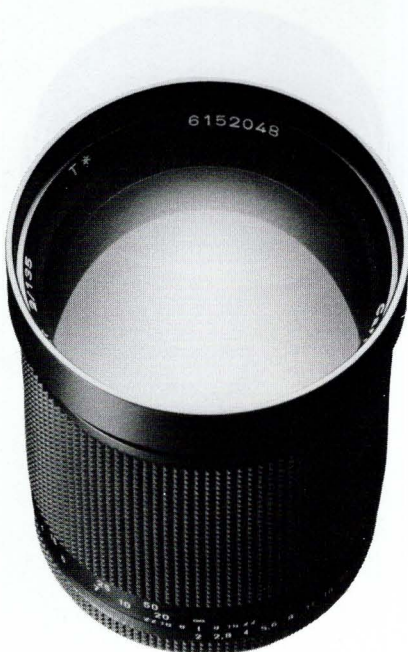
- **Lens Composition:** 6 elements, 5 groups
- **Angular Field:** 24°30' ● **Minimum Focus:** 1 m (3.5 ft.)
- **Aperture Range:** f/2 — f/22
- **Diaphragm Action:** fully automatic ● **Filter:** 67 mm screw-in type
- **Lens Shades:** 67 mm G-13 Soft lens shade, screw-in type; No. 4 Metal Hood (67/86 mm ring), screw-in type
- **Lens Case:** No. 2 Leather ● **Lens Cap:** 70 mm, clip-on type
- **Size:** 70 x 84 mm (2-3/4 x 3-5/16 in.)
- **Weight:** 670 grams (1.48 lbs.)

---

**Planar T\* f/2 135mm w/CASE**

---

Price



Surprisingly small for its type, this lens has outstanding image quality and image field illumination at all apertures. An ideal medium focal length lens.

- **Lens Composition:** 5 elements, 5 groups
- **Angular Field:** 18°30' ● **Minimum Focus:** 1.5 m (5 ft.)
- **Aperture Range:** f/2 — f/22
- **Diaphragm Action:** fully automatic ● **Filter:** 72 mm screw-in type
- **Lens Shade:** No. 4 Metal Hood (72/86 mm ring), screw-in type
- **Lens Case:** No. 5 Leather ● **Lens Cap:** 75 mm, slip-on type
- **Size:** 75 x 101 mm (2-15/16 x 4 in.)
- **Weight:** 830 grams (1.83 lbs.)



---

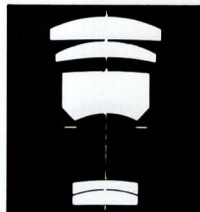
## Sonnar T\* f/2.8 135mm w/CASE

---

Price

Outstanding for landscape photography, flora and fauna studies, portraits and others where a telephoto effect is desired without the undesirable flattening of perspective prevalent with longer focal lengths.

- **Lens Composition:** 5 elements, 4 groups
- **Angular Field:** 18°30'
- **Minimum Focus:** 1.6 m (5.5 ft.)
- **Aperture Range:** f/2.8 – f/22
- **Diaphragm Action:** fully automatic
- **Filter:** 55 mm screw-in type
- **Lens Shade:** slide type metal hood built-in
- **Lens Case:** No. 3, Leather
- **Lens Cap:** 59 mm clip-on type
- **Size:** 68.5 x 93 mm (2-11/16 x 3-11/16 in.)
- **Weight:** 585 grams (1.29 lbs.)



---

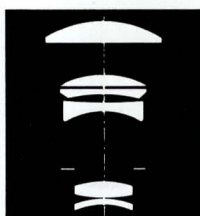
## Sonnar T\* f/2.8 180mm w/CASE

---

Price

The famous "Olympia Sonnar", updated with modern computer design techniques. Combines a telephoto focal length with a large maximum aperture for convenience in fast sports action and other similar fields.

- **Lens Composition:** 6 elements, 5 groups. Correction of aberration at close range with "floating element"
- **Angular Field:** 14°
- **Minimum Focus:** 1.4 m (5.0 ft.)
- **Aperture Range:** f/2.8 – f/22
- **Diaphragm Action:** fully automatic
- **Filter:** 72 mm screw-in type
- **Lens Shade:** slide type metal hood built-in
- **Lens Case:** No. 5, Leather
- **Lens Cap:** 75 mm, slip-on type
- **Size:** 78 x 131 mm (3-1/16 x 5-3/16 in.)
- **Weight:** 815 grams (1.8 lbs.)

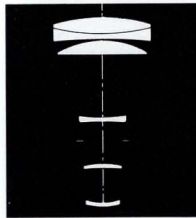




---

**Tele-Tessar T\* f/3.5 200mm w/CASE**

Price



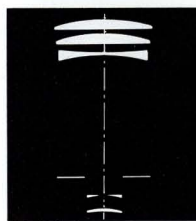
An ideal choice for long-range work in sports and press photography as well as for landscapes. The bright image makes focusing easier even with fresnel lens ground glass. Very compact.

- **Lens Composition:** 6 elements, 5 groups
- **Angular Field:** 12°40' ● **Minimum Focus:** 1.8 m (6 ft.)
- **Aperture Range:** f/3.5 – f/22
- **Diaphragm Action:** fully automatic ● **Filter:** 67 mm screw-in type
- **Lens Shade:** slide type metal hood built-in ● **Lens Case:** No. 5 Leather
- **Lens Cap:** 70 mm, clip-on type ● **Size:** 77.5 x 121.5 mm (3-1/16 x 4-13/16 in.)
- **Weight:** 750 grams (1.65 lbs.)

---

**Tele-Tessar T\* f/4 300mm w/CASE**

Price



Outstanding correction of all aberrations so performance is clearly superior to that of other lenses in this class. Useful for situations where the subject cannot be approached.

- **Lens Composition:** 5 elements, 5 groups
- **Angular Field:** 8°15' ● **Minimum Focus:** 3.5 m (11.5 ft.)
- **Aperture Range:** f/4 – f/32
- **Diaphragm Action:** fully automatic ● **Filter:** 82 mm screw-in type
- **Lens Shade:** slide type metal hood built-in ● **Lens Case:** No. 6, Leather
- **Lens Cap:** 85 mm, slip-on type ● **Size:** 88 x 205 mm (3-7/16 x 8-1/16 in.)
- **Weight:** 1,200 grams (2.65 lbs.)



---

## Vario-Sonnar T\* f/3.5 40~80mm w/CASE

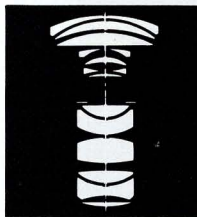
---

Price

Covers the most frequently used focal length range of 40-80 mm. Image quality is high at all focal lengths, even at full aperture.

Focusing and zooming performed with one easy-to-use ring.

- **Lens Composition:** 13 elements, 9 groups
- **Angular Field:** 55° – 31°
- **Minimum Focus:** 1.2 m (4 ft.)
- **Aperture Range:** f/3.5 – f/22
- **Diaphragm Action:** fully automatic
- **Filter:** 55 mm screw-in type
- **Lens Shades:** 55 mm G-11 Soft lens shade, screw-in type; No. 2 Metal Hood (55/86 mm ring), screw-in type
- **Lens Case:** No. 3, Leather
- **Lens Cap:** 59 mm, clip-on type
- **Size:** 67 x 87 mm (2-5/8 x 3-7/16 in.)
- **Weight:** 605 grams (1.33 lbs.)



---

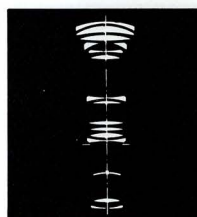
## Vario-Sonnar T\* f/3.5 70~210mm w/CASE

---

Price

Covers the medium to long telephoto range with a 3X focal length variation range. Images are sharp even with the large maximum aperture. Also has a macro range for close focusing. Sharpness and contrast are outstanding throughout the range.

- **Lens Composition:** 15 elements, 12 groups
- **Angular Field:** 33° – 12°
- **Minimum Focus:** 1.8 m (6 ft.) at macro setting
- **Aperture Range:** f/3.5 f/22
- **Diaphragm Action:** fully automatic
- **Filter:** 67 mm screw-in type
- **Lens Shade:** No. 3 Metal Hood (67/86 mm ring), screw-in type
- **Lens Case:** No. 6, Leather
- **Lens Cap:** 70 mm, clip-on type
- **Size:** 77 x 186 mm (3-1/16 x 7-5/16 in.)
- **Weight:** 1.145 grams (2.52 lbs.)



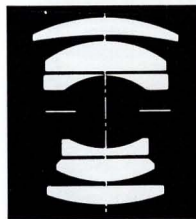


---

**S-Planar T\* f/2.8 60mm Macro w/CASE**

---

Price



A special lens characterized by optimum correction of aberrations apt to occur in photography at close distances. Can also be used for distant subjects. Provides up to 1:1 magnification ratio without extension tube.

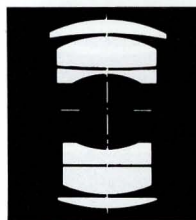
- **Lens Composition:** 6 elements, 4 groups
- **Angular Field:** 39° ● **Minimum Focus:** 0.24 m (10 in.)
- **Aperture Range:** f/2.8 — f/22 ● **Diaphragm Action:** fully automatic
- **Filter:** 67 mm screw-in type
- **Lens Shades:** 67 mm G-13 Soft lens shade, screw-in type; No. 3 Metal Hood (67/86 mm ring), screw-in type
- **Lens Case:** No. 2, Leather
- **Lens Cap:** 70 mm clip-on type
- **Size:** 75.5 x 74 mm (3 x 2-15/16 in.) ● **Weight:** 570 grams (1.26 lbs.)

---

**S-Planar T\* f/4 100mm Bellows w/CASE**

---

Price



Used with the Contax Auto Extension Bellows PC for extreme close-ups. Features superb correction of all aberrations at close distances. Has no helicoid, focuses using bellows action to infinity.

- **Lens Composition:** 6 elements, 4 groups
- **Angular Field:** 24°30' w/33° image circle
- **Minimum Focus:** 1.4X magnification ratio
- **Aperture Range:** f/4 — f/32 ● **Diaphragm Action:** instantaneous stopdown w/connector cord
- **Filter:** 55 mm screw-in type
- **Lens Shades:** 55 mm G-11 Soft lens shade, screw-in type; No. 5 Metal Hood (55/86 mm ring), screw-in type
- **Lens Case:** No. 1, Leather
- **Lens Cap:** 59 mm clip-on type
- **Size:** 62.5 x 48.5 mm (2-7/16 x 1-15/16 in.) ● **Weight:** 285 grams (10.1 ozs.)



---

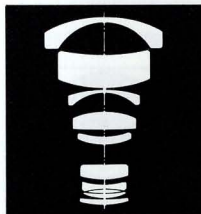
## PC-Distagon T\* f/2.8 35mm w/CASE

---

Price

This wideangle lens has an extra large image circle of 83 mm in order to permit displacements for control of perspective. Displacement of 10 mm is possible with slight thumb pressure. And the lens rotates 90° in 15° steps for control in all directions.

- **Lens Composition:** 9 elements, 9 groups
- Correction of aberration at close range with "floating elements"
- **Angular Field:** 63° (83° image circle)
- **Minimum Focus:** 0.3 m (1 ft.)
- **Aperture Range:** f/2.8 – f/22
- **Diaphragm Action:** preset
- **Filter:** 86 mm with 70/86 ring
- **Lens Shade:** Use 70/86 ring
- **Lens Case:** No. 2, Leather
- **Lens Cap:** 70 mm slip-on type
- **Size:** 70 x 85.5 mm (2-3/4 x 3-3/8 in.)
- **Weight:** 725 grams (1.6 lbs.)




---

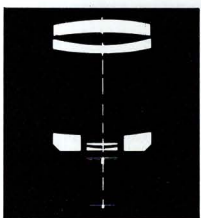
## Mirotar f/4.5 500mm w/CASE

---

Price

The fastest lens available today in this focal length, the Mirotar f/4.5 500 mm completely eliminates the chromatic aberrations so prevalent in conventional high-speed lenses of this class. Since lenses of this type do not have a built-in diaphragm, exposure values must be adjusted by varying the shutter speed or using neutral density filters.

- **Lens Composition:** 5 elements, 5 groups
- **Angular Field:** 5°
- **Minimum Focus:** 3.5 m (11.5 ft.)
- **Aperture Range:** f/4.5 only
- **Diaphragm Action:** no diaphragm
- **Filter:** slide type (UV, Y, O, 1R) and 3-position turret mount for ND filters to adjust exposure
- **Lens Case:** Special case holds lens and filters
- **Lens Cap:** included
- **Size:** 151 x 225 mm (5-15/16 x 8-7/8 in.)
- **Weight:** 4.5 kg (9.92 lbs.)





---

**Mirotar f/5.6 1000mm w/CASE**

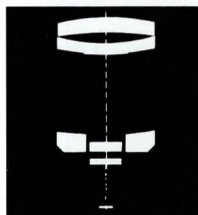
---

Price



The world's finest ultra-telephoto lens, the Mirotar f/5.6 1000 mm is also the fastest in its class by far. Precision processing of mirrors and lens elements ensures superb image quality that is uniform over the entire field of view. A must where only the finest work will do.

- **Lens Composition:** 5 elements, 5 groups
- **Angular Field:** 2°30' w/4°30' image circle
- **Minimum Focus:** 12 m (39.4 ft.)
- **Aperture Range:** f/5.6 only
- **Diaphragm Action:** no diaphragm
- **Filter:** slide type (UV, Y, O, 1R) and 3-position turret mount for ND-filters to adjust exposure
- **Lens Case:** Special case holds lens and filters
- **Lens Cap:** included
- **Size:** 250 x 470 mm (9-13/16 x 18-1/2 in.)
- **Weight:** 16.5 kg (36.38 lbs.)





---

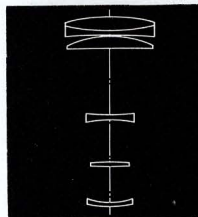
## Tele-Tessar T\* f/4 200mm w/CASE

---

Price

A true telephoto optical design, for unusual compactness, this lens is extremely well suited to sports, wildlife and landscape applications. Color balancing and full correction of all aberrations provide exceptional reproductive qualities.

- **Lens Composition:** 6 elements, 5 groups
- **Angular Field:** 12°40'
- **Minimum Focus:** 1.5m (5ft.)
- **Aperture Range:** f/4 - f/32
- **Diaphragm Action:** fully automatic
- **Filter Size:** 55mm screw-in type
- **Lens Hoods:** Built-in
- **Lens case:** No 5
- **Lens cap:** 55mm
- **Size:** 66.5 x 122mm (2-5/8 x 4-13/16 in.)
- **Weight:** 550 grams (1.2 lbs.)



## N-Mirotar

### A Special Purpose Lens for Near Total Darkness Photography



The N-Mirotar (n=Nacht, night) is a special lens which through advanced technology in image intensification makes night photography possible without the aid of artificial lighting or a tripod.

The instrument comprises a high-speed mirror lens, a 3-stage image intensifier tube, a wide aperture macro-lens and a power supply source.

The mirror lens picks up residual light and throws the image of a night scene onto the photocathode of the image intensifier tube. In this tube, the details of the scene are intensified 80,000 times in 3 steps according to luminance and then projected onto a screen. The macro-lens links the image intensifier to the camera and transfers the image from the screen onto the film.

Compared to a f/1.4 photographic lens, the N-Mirotar magnifies the intensity of illumination at the film plane 2,500 times. This means that exposure time can be reduced 11 exposure steps by using the N-Mirotar.

On a clear moonlit night (illuminance  $10^{-1}$  lux) with ASA-400 film (27 DIN) the exposure time is about 1/500 sec. Using the same type of film on a quarter moonlit ( $10^{-2}$ ) or starlit night ( $10^{-3}$ ), the exposure times are 1/60 sec. and 1/4 sec. respectively.

#### Specifications

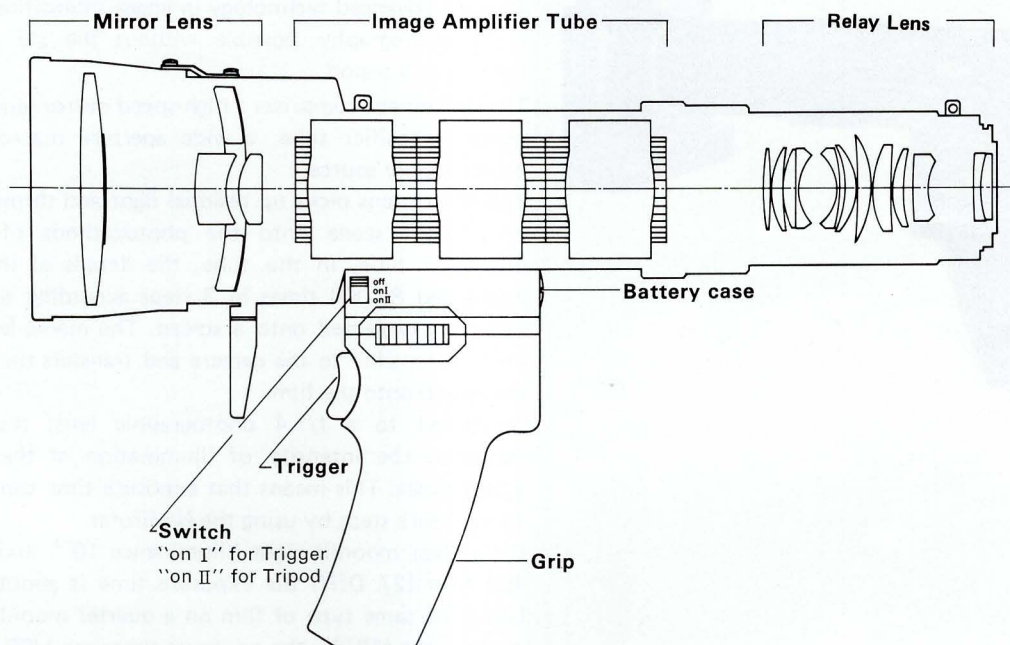
- Equivalent focal length: 210 mm
- Diameter of field: 30 mm
- Angular field:  $8^{\circ}$
- Focusing range:  $\infty$  to ca. 20 m
- Image intensifier: 3-stage
- Relative intensification: 2,500 times greater than a f/1.4 lens (corresponds to 11 exposure steps)
- Effective lens speed: f/0.03
- Power supply: 2 x 1.5 V penlight batteries (in the handle)
- Operating time on one set of batteries: 30 – 40 hours

#### Some useful applications at night or in dark areas are:

- **Police, narcotics control agents, night watchmen** : For night detection of crimes, narcotics traffic, trespassers, burglars etc.
- **Port authorities, coast guards** : Surveying the loading of contraband goods, pilferage of goods, coastal landing of unidentified vessels, smuggling, etc.
- **Game wardens, fauna studies** : Animals at night, poachers in game sanctuaries, etc.
- **News photographers, photo journalists** : Covering unusual events, rituals and ceremonies at night.



## N-MIROSTAR



### ● Mirror Lens

A wide-aperture catadioptric system collects nocturnal residual light, producing an image of the night scene through the cathode of the image amplifier tube.

The lens construction is a modified Cassegrain system. It is chromatically corrected in the wide spectral range from 400 nm to 1000 nm. The modulation transmission function of this system is optimized for an image amplifier's transmitted polar frequency range of 0 to 35 Lines/Millimeter (Frequency). Focusing is performed by shifting the lens group arranged in the opening of the collecting mirror in the axial direction.

#### Mirror lens specifications:

Elements:	4
Groups:	4
Mirror surfaces:	2
Aperture:	f/1.5
Focal length:	125 mm
Angle of view:	8°
Focusing range (internal focusing)	∞ to approx. 20 m

### ● Image Amplifier Tube

The image amplifier tube converts partly invisible nocturnal radiation into light by means of an electronic image, boosting the weak signals of the visible spectrum. The conversion of the incoming rays into an electronic image is performed at the photo cathode of the image amplifier tube. The electrons emitted by the cathode are applied to a luminescent screen through an electron-optical reproduction system and converted into light.

Each stage is coupled optically by Fiber-Optics. Fiber-Optics are also attached in front of the input cathode and behind the luminescent screen of the third amplifier stage. They are designed to optically flatten the cathodes and screens, which are heavily curved for electron-optical reasons, for the reproduction stages connected in front of and behind the image amplifier tube.

### Specifications of the 3-stage image amplifier tube:

Cathode type:	S 25
Maximum spectral sensitivity:	550 – 600 nm
Effective diameter of the cathode:	18 mm
Screen type:	P 20 (ZnCdS: Ag) or equivalent
Maximum emission:	550 nm
Focusing:	electrostatic self-focusing, with image inversion
Fiber-Optics input/output:	plane with numerical aperture 1
Brightness control:	automatic
Light amplification:	approx. 80,000

### ● Relay Lens

The luminescent screen of the image amplifier is magnified (magnification scale  $\beta = -1.7$ ) through a 12-element macro lens with a high numerical aperture, and reproduced to the film plane of the camera body. The diameter of the screen image on the film is about 30 mm.

The high reproduction performance of the relay lens ensures a loss-free transcription of the tube's screen image onto the film.

#### Relay lens specifications:

Elements:	12
Groups:	10
Numerical aperture:	0.18
Magnification scale:	1.7

### ● Battery Case

Power supply	AA-batteries 1.5V
	X2

Service life with one set of batteries: 30-40 hours

- Size: 365mm x 90mm (14-3/8 x 3-9/16 in.)
- Weight: 2.17 kg (4.78 lbs.)