

CONTAX
60 Years

Back to Camera Basics

CONTAX S2



The stream Kocher running by Oberkochen, Germany.

Carl Zeiss — Since 1846, the German name synonymous with perfection in fine manipulation of light.

To professional photographers and those who love photography, the name Carl Zeiss carries a special connotation all of its own. By association, it conjures up images of historically significant Carl Zeiss lenses such as Planar, Distagon, Tessar and Sonnar, all with pioneering formulations. Over more than 100 years, these lenses have been favored by great photographers such as Edward Weston (1886 ~ 1958), Ansel Adams (1902 ~ 1984), and Robert Capa (1913 ~ 1954) to realize the results by which they became renowned. The superb feeling of depth and clarity of such famous photographic studies as many in Adams' scenic series taken in Yosemite (U.S. National Park) are

a tribute and testimony to the superb contrast reproducibility, natural ambience and aberration-corrected characteristics of Carl Zeiss lenses. To take these monochromatic artistic masterpieces, Ansel Adams favored his Sonnar lenses. NASA made scientific photographic history by capturing the whole earth from space on film for the first time by using a Planar lens (mounted on a Hasselblad body).

Serving as the extended eyes of mankind for more than 100 years, Carl Zeiss optics have been chosen with confidence by generations of scientific researchers and photographic artisans alike. They have also played an active role in industrial applications as well,

especially where critically high precision has been required. Some of these many uses include light, electron, electronic metallurgical and surgical microscopes, photographic lenses, binoculars, eyeglasses, astronomic telescopes (earth and satellite based), surveying instruments, and planetarium projectors (such as the pioneering model used when the famed American Museum of Natural History's Hayden Planetarium opened).

All of this harks back to the engineering genius of Carl Zeiss who in 1846 established a company bearing his name, to manufacture microscopes. This machinery/optical factory in Jena, Germany soon developed a reputation for

the high quality that has remained linked with the Carl Zeiss name ever since. In fact, by the time he entered into a partnership with Dr. Ernst Abbé in 1866, the Carl Zeiss mark was held in great esteem throughout the world. Dr. Abbé, was a physicist whose superior optical formulations had made the world sit up and take notice. The duo were later joined by Dr. Otto Schott, a pioneering scientist in the development of optical glass theory and practice. By the 1880's Dr. Schott was so successful that the term "Jena



glass" entered common use and was equated as "the best". While Carl Zeiss laid the base, he along with Abbé and Schott set the three foundation stones in place upon which that company was built and continues to grow. Today their bronze busts stand side-by-side in the center hall of the Oberkochen plant. The company diversified as it

grew, so just one year after the death of Dr. h.c. Carl Zeiss (in 1888), Dr. Abbé reorganized the firm as a foundation (Carl Zeiss Stiftung). As with many post-World War I European industries, German camera makers were under terrible pressure, partially due to runaway inflation, to rationalize production. Reacting to this situation, in 1926 four leading camera makers (Contessa-Nettel of Stuttgart, C.P. Goerz of Berlin, Ernemann and Ica, both of Dresden) joined with the foundation to form a holding company in Dresden under the name Zeiss-Ikon, marking the foundation's entry into the field of camera manufacturing, and it was under their doublet logo that the foundation was known globally, well into the seventies.

Carl Zeiss' Dr. Paul Rudolph developed probably the world's most famous camera lens, the first Tessar lens (with a working aperture of $f/6.3$) which was made available in 1902. Improving on this formulation, the firm's Dr. Ernst Wandersleb developed faster Tessar lenses of $f/4.5$ and $f/3.5$; all three known for their high resolution. By the time the Contax I was made available, Carl Zeiss engineers had succeeded in



producing an $f/2.8$ Tessar lens (1931) and an incredibly fast Sonnar 50mm $f/1.5$ lens (1932) for mounting on this camera. As an optical pioneer, Carl Zeiss' engineering feats and technological advancements have made world photographic history. Even by



Left & top: Views at the center of provincial Oberkochen. Above: Main section of the Oberkochen Plant.



Carl Zeiss' founding triumvirate.



today's criteria, a 50mm f/1.5 lens is amazingly bright (maximum aperture) lens, so one can only imagine how revolutionary it was some sixty years ago!

Although Germany was tragically divided into East and West after World War II, and two Carl Zeiss firms competed (one based in Jena, the other in Oberkochen), with reunification being realized in 1990, Carl Zeiss became one again, but based in Oberkochen. Oberkochen is a small town nestled among idyllic surroundings of open, rolling green hills (pastureland and forests), about a one-

hour train ride from Stuttgart, it's a "company" town as Carl Zeiss employs approx. 75% of the some 8,000 population. Today, the Foundation is headquartered in Heidenheim, while Oberkochen is home to both their modern production facilities and the principal optical design center. As such, the Carl Zeiss sign can be clearly seen throughout the area.

Within the Carl Zeiss works, almost everything you can think of in the field of optics is manufactured, ranging from giant astronomical telescopes and aspherical lenses with complicated curvatures,



through advanced instrumentation that applies cutting-edge technology to outer-space exploration, as well

as photographic lenses, direct successors to over 100 years of photo-optical technology developed by Carl Zeiss' founders and collaborators. In fact, today, just as in



the past, Carl Zeiss executives hold by their motto that, "There can be no compromise with 'Quality'." It is by these words that all employees from the top, down, continue to maintain the Carl Zeiss name and products as the epitome of optical technology, standards for which the world recognizes them.

Left: Raw optical glass still made to Dr. Schott's formulation. Middle: Carl Zeiss lenses designed for the new CONTAX SLRs. Right: A proud Carl Zeiss craftsman.

Contax — Since 1932, the name of great camera stars in the photographic constellation.

Surely the 35mm SLR must be ranked as one of this century's greatest developments; helping to spur rapid growth of the photographic industry, and popularizing film use by the masses.

Use of the 35mm cine-film was not only the prerequisite for the construction of smaller camera bodies, but also had the enormous advantage, compared with the 120 roll-film, of yielding 36 exposures per roll. When the Contax I 35mm rangefinder camera appeared

in 1932, with its light aluminum alloy diecast body, detachable back, all-metal vertically running shutter curtain, and bayonet (instead of screw) interchangeable lens mount, it was an instant hit among photographers who desired the optimum in precision and handling ease.

Building upon the high reputation accorded the Contax I, Zeiss Ikon in 1936 introduced both the improved Contax II with the shutter speed setting knob moved

from the front of the camera to the top plate and more modern lines including the contrasting black leather accents on a chromium body with satin/shiny finishes, as well as the Contax III which, except for the built-in (selenium cell) exposure meter on top, was essentially identical. These cameras were certainly technologically advanced for their time, especially the latter, as a built-in exposure meter was rare even as late as 1950. Accordingly,

the Contax cameras and the superb performance of the range of interchangeable Carl Zeiss lenses did much to further the company's image as being one of the world leaders in the photographic industry. During the post-World War era, Zeiss Ikon, then headquartered in Stuttgart, brought out updated, but basically similar versions, the Contax IIa in the spring of 1950, and the Contax IIIa a year later. Both of these cameras proved to be, as before, the standard by which other 35mm coupled rangefinders were measured. To support the Contax system, further advanced lenses were produced at the newly established Carl Zeiss Oberkochen works.

At about the same time (1949) behind the Iron Curtain, in Jena, the original home of Carl Zeiss, the East German team of VEB Zeiss Ikon gave the Contax name a new direction by introducing the Contax S (the 'S' in German standing for Spiegelreflex, SLR in English). This was a pioneering approach as it eliminated the need for a cumbersome reflex housing which could be mounted between the camera body and lens, if desired. Further, by mounting a pentaprism on the body itself, a relatively streamlined, easy to handle 35mm camera was pro-



Carl Zeiss optical laboratory.

duced. In fact, the Contax S could very well be called a forerunner of the modern SLR.

Through the cooperative efforts of Carl Zeiss, the specially chosen Japanese technological team, and the Porsche Design Group, the Contax name was reborn in 1974 with the introduction of the sophisticated CONTAX RTS 35mm SLR system. Readily sought after by old and new generations of Contax fans and lovers of Carl Zeiss optical superiority alike, as both the camera and lenses were true inheritors of the German history and tradition that made the earlier ones so great. Through the untiring efforts of the Kyocera Contax development team, continuous progress has been made in creating new models, the latest of which, the CONTAX RTS III produced from 1990, has received a great deal of recognition including the prestigious "1991 Camera Grand Prix" (Japan) and "TIPA-Award, Best SLR 91/92" (Europe).

Not one to rest on their laurels, after considerable brainstorming and discussion, the same team decided that the current movement in design towards "reevaluation of the past" should be carefully examined. From such an investigation, a "return to basics" approach was decided upon. To further this goal, the concept of "simple is best," was adopted. Every system and mechanism was scrutinized and rescrutinized, time and again. It was also felt that where precision, reliability and durability could be heightened, especially under adverse or extreme conditions, mechanical over electronic mechanisms were to be chosen.

Upon these principles, much the same ones that made the Contax S revolutionary, the CONTAX S2 has been born. Kyocera engineers were determined that total control should remain with human hands, eyes and brain, rather than through electronic automation. Simplicity and manual controls thus deliver continuous, proven precision even against adverse environmental conditions, plus afford an extra degree of intellectual and artistic freedom over that found in conventional automated cameras which tend to limit the photographer's control options.

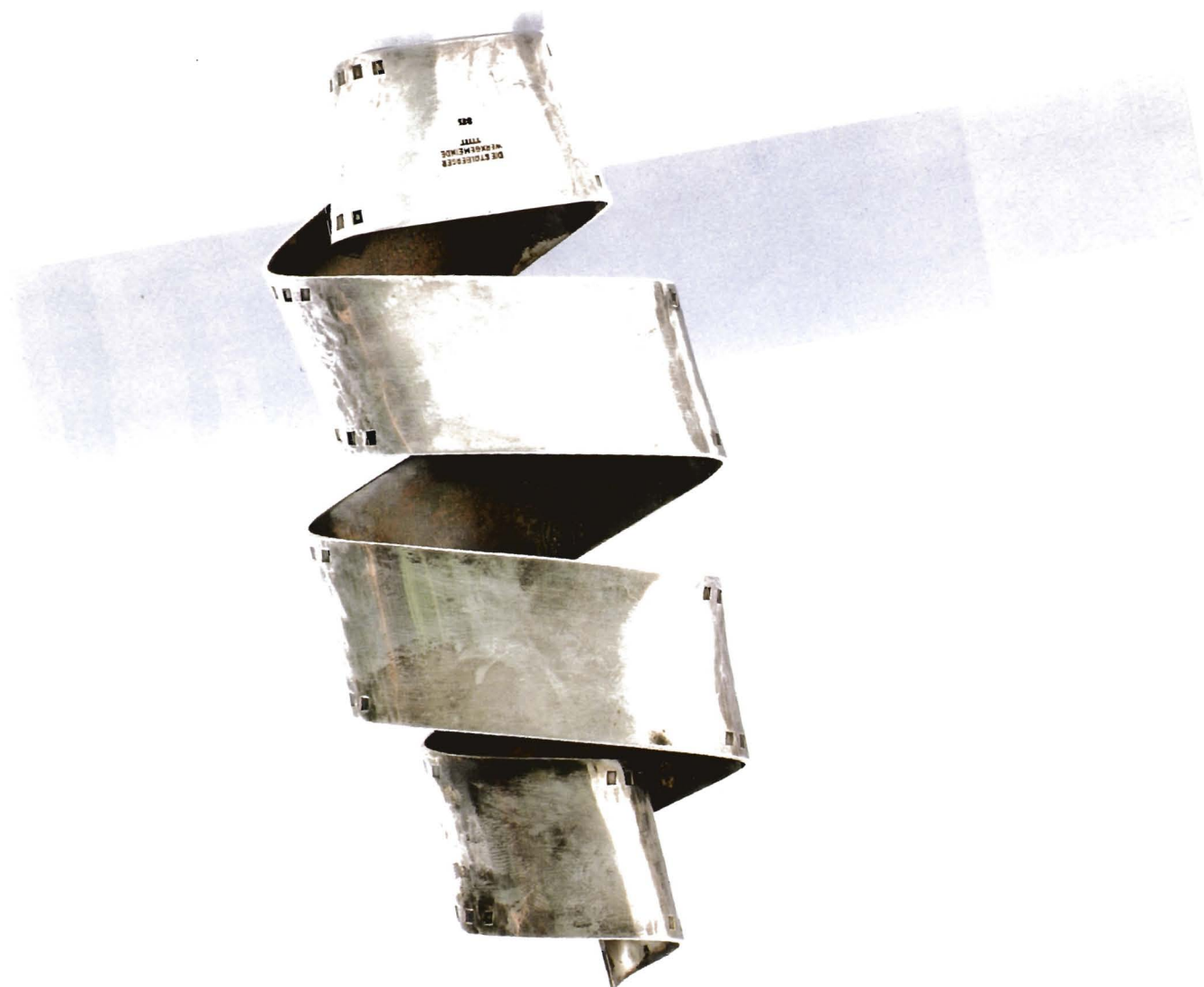
1950. Zeiss Ikon, Stuttgart introduced the Contax IIa, a modified version of their pre-war Contax II model.



1949. VEB Zeiss Ikon, Dresden produced the Contax S, the first SLR with the Contax name.









The CONTAX S2 Concept ... "Simple Is Best!"

A daring approach was taken by selecting mechanical over electronic controls for use in the CONTAX S2, especially considering that the latter are so highly thought of today. In fact, many sophisticated cameras which include auto-everything (such as load, wind, rewind) even do away with the winding lever so familiar to generations of 35mm camera users.

With all essential camera operations ... movement of the mechanical metal shutter, selection of shutter speed, film easy-load, wind, rewind, light metering (spot-type), exposure adjustments, focusing, and the multiple exposure option ... being controlled mechanically or manipulated by hand, they are free from requiring a battery power source. Manpower is the energy source! Thus, even in the field under adverse environmental conditions and heavy duty use, the CONTAX S2 will take the punishment and deliver reliable, high precision performance. It is this conservative or classic design approach that harks back to the past when "simple was best," and true artisans captured

images photographically with all the true depth and subtleties of light, that viewers of their treasured results still marvel at how real these images appear to be. With the CONTAX S2, the New Classic Camera for the 90's, the photographer's creativity triumphs over automation. Kyocera's engineers have built in such a high degree of quality, sturdiness, manual reliability and the classic feel, that camera lovers in the future will look back on the CONTAX S2 with the great nostalgia now afforded its noble predecessors from the pioneers of the past to the highly advanced SLRs of the present.

Full Manual Control Provides Extra Reliability and Creative Human Independence





Mechanical Metal Shutter ... Space-age Reliability that Offers a Whisper of the Past

The mechanically controlled, vertically running metal focal plane shutter, being constructed of the latest materials, delivers highly precise, reliable performance even up to a maximum shutter speed of 1/4000 sec. and a flash synch. at 1/250 sec. or slower under all types of conditions and over long periods of continuous use. An extra smooth stroke gives the shutter release button a sure, 'just right' feel. At the same time, supremely robust construction plus



the ability to better withstand external shock and intense vibration as compared with conventionally built cameras, will make the CONTAX S2 a reliable companion especially to photographers working in rugged terrain.

The Surety of Generations of Proven Manual Film Winding

How many generations of professionals have been introduced to photography using a camera with manual wind, and how many still carry along one such body as a backup? Therefore, such professionals on occasion feel more



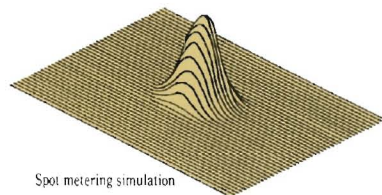
assured when a manual film winding lever, rather than just motorized control is available on the camera. This is especially true when using an SLR camera under adverse conditions, and there is a greater chance of battery power or automation failure. The CONTAX S2 has been designed with this concern in mind as it allows for completely reliable manual manipulation while not detracting from the handling ease of a classic-styled camera.





Spot Metering ... the Perfect Exposure Complement to Carl Zeiss Lens Precision

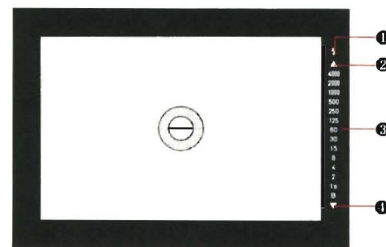
Many methods for metering the light falling on a subject (e.g. averaged, center-weighted, matrix) have been tried in 35mm SLRs. Likewise, many systems have been devised to use this information



in controlling exposure. Even in cameras with built-in AE, many times there's a choice between different AE programs. Yet in the end, the decision about which system/program is to be used, remains a human one. With the CONTAX S2, Kyocera's engineers decided to use a spot metering system coupled with a simple exposure selection system easily visible in the viewfinder. This spot sensor measures just the brightness of an area essentially equal to the area covered by the microprism ring in the viewfinder. By heavily weighing the metering on such a confined

area (as seen by the computer-generated representation), precisely targeted light measurement is assured, uninfluenced by illumination outside the critical subject area.

Such a highly accurate sensing system thus allows the photographer to select and create the exact artistic exposure desired, one that will take full advantage of the superb clarity and performance of the full range of Carl Zeiss lenses.



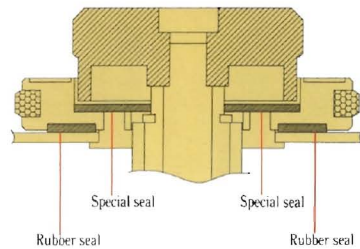
- ① Flash mark
- ② Over-exposure warning
- ③ Shutter speed
- ④ Under-exposure warning





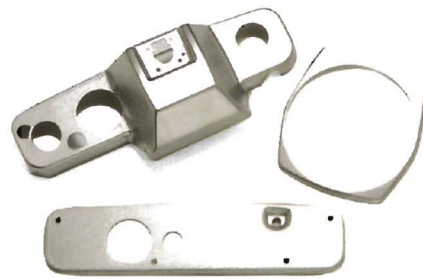
Specially Designed for All-Weather Camera Use

A fine precision instrument, the CONTAX S2 incorporates a number of soft rubber tubes and seals to make the inner working mechanisms freer from dust and moisture than conventionally designed cameras. Accordingly, the CONTAX S2 will better withstand adverse weather and climate conditions so as to continue to deliver the high performance for which CONTAX cameras are well known.



Lightweight, Yet Tough, Titanium Covers

Titanium, the durable and corrosion-resistant metal favored for use in outer and inner space vehicles (supersonic airliners, rockets, etc.), is employed for construction of the camera's top, bottom, and front casings. By using this material, and applying Kyocera's advanced metallurgical technologies, the CONTAX S2 development team achieved heightened camera body durability, including protection of the vital internal precision mechanisms from extreme external shock and adverse environmental conditions. Additionally, the brushed titanium appearance gives the camera an elegant look of fine quality and craftsmanship.



Manual Rewind Crank for Enhanced Control

Although it has disappeared in many of modern auto-everything 35mm cameras, the manual rewind crank remains an important tool for photographic professionals. The CONTAX S2 sports a large crank that permits smooth, quick rewinding, and that has a positive pull for the user to confidently confirm the film's rewinding.



and the film will not be advanced to the next frame, thus allowing for quick multiple exposures when desired. To prevent accidental use, the multi-exposure lever returns to the neutral position automatically, and slides in the opposite direction of the movement of the winding lever.



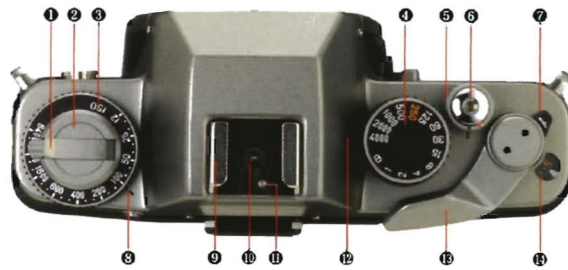
Traditionally Designed, Easy-Loading System

Part of the beauty of using the 35mm film cassette is its handling ease. Using a traditional design, enhanced with additional slots in the take-up spool mechanism, film is loaded simply by feeding the leader into place; a tried and true approach that also affords easy confirmation of proper loading, visually.

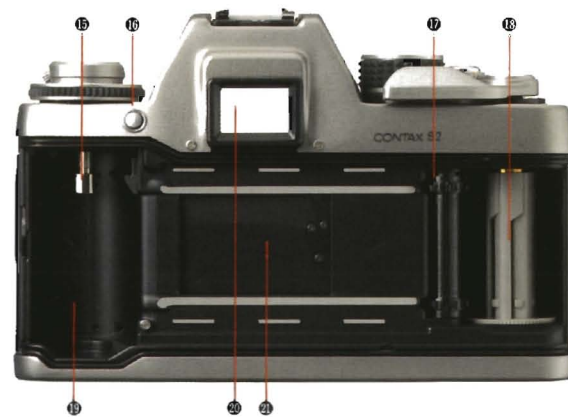
Swift Multi-exposure Selection ... a Creative Tool

Simply by moving the multi-exposure lever, the shutter can be recocked using winding lever,

- 1 Film Rewind Crank
- 2 Film Rewind Knob
- 3 Film Speed Dial
- 4 Shutter Control Dial
- 5 Shutter Release Button Ring
- 6 Shutter Release Button
- 7 Cable Release Socket
- 8 Multi-exposure Lever
- 9 Film Speed Setting Index
- 10 Accessory Shoe
- 11 Direct X Contact
- 12 Dedicated Flash Contact
- 13 Shutter Speed Index
- 14 Film Winding Lever
- 15 Exposure Counter



- 16 Film Rewind Stud
- 17 Film Speed Dial Release Button
- 18 Sprocket
- 19 Spool
- 20 Film Cassette Chamber
- 21 Viewfinder Eyepiece
- 22 Shutter Curtain
- 23 Depth-of-field Preview Button



- 24 Strap Lug
- 25 Self-timer Lever
- 26 Lens Release Button
- 27 Lens Index
- 28 Focusing Screen Release Lug
- 29 X Synchro Terminal



- 30 Film Rewind Button
- 31 Tripod Socket
- 32 Battery Compartment/Battery Compartment Cover

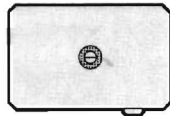


Interchangeable Focusing Screens

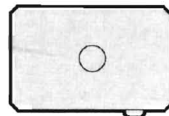
Four bright, quickly interchangeable focusing screens are available for the CONTAX S2 to meet any number of special photo requirements.



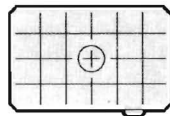
FU-3 45° Split/Micropism Screen
Universal type screen especially suited for general subjects lacking vertical lines, allowing for focusing using the split, micropism, or surrounding matte fields.



FU-4 Standard Screen
(horizontal split micropism)
Supplied with the CONTAX S2, this general purpose screen is virtually the same as FU-3, except the split is horizontal.



FU-5 Matte Screen
Full matte field with center circle;
Best choice for use with telephoto or close-up lenses where there's difficulty in focusing with a split or micropism screen.



FU-6 Matte Grid Screen
Same as FU-5, but with spaced reference grid; Ideally suited for detailed copying work and shift-tilt (architectural) photos.

Flexible Case C-3

A fashionable leather case capable of holding and protecting the CONTAX S2 with Sonnar 100mm f/3.5 lens and the lenses* with a focal length shorter than 85mm mounted on the body.



*Cannot be used with
Vario-Sonnar T * f/3.3-1/4 28-85mm,
Vario-Sonnar T * f/3.5 40-80mm,
PC-Distagon T * f/2.8 35mm,
Distagon T * f/3.5 15mm.

Special Edition S2 Strap

A special wide strap with the "CONTAX 60 Years" commemorative mark and equipped with a small pocket (e.g. to hold a film cassette) on both ends.



CONTAX S2 Specifications

Type	35mm metal focal-plane shutter SLR camera
Lens mount	Contax/Yashica mount
Shutter	Mechanically controlled, vertically-running metal focal-plane shutter
Shutter Speeds	B (bulb), 1 sec. ~ 1/4000 sec.
Flash Synch.	X setting at 1/250 sec. or slower (w/direct X contact and synch. terminal)
Selftimer	Mechanical (delay of approx. 10 sec.)
Shutter Release	Mechanical (w/cable release socket, release lock)
Exposure Control	Manual, TTL spot (approx. 45mm) metering coupled with viewfinder panel readout
Metering Range	EV4 ~ 20 (ISO 100, f/1.4)
Film Speed Setting	Manual, ISO 12 ~ 6400
Viewfinder	Fixed eye-level pentaprism finder (long eyepoint); 95% field-of-view; 0.82x magnification (w/standard 50mm lens at ∞)
Focusing Screen	Horizontal split/micropism center spot on matte field (standard); interchangeable
Display in Viewfinder	LEDs for (top to bottom) flash indicator, overexposure warning, shutter speeds (in use, preferred), underexposure warning
Film Loading	Easy-loading multi-slotted take-up spool
Film Advance	Manual by lever with 30° stand-off angle, full 135° for advance
Film Rewind	By pushing rewind button and turning rewind crank
Exposure Counter	Mechanical, auto-resetting, additive type
Multiple Exposure	Available using mechanical multi-exposure lever, auto-resetting
Accessory Shoe	Direct X-contact (flash ready with dedicated flash units)
Back Cover	Pull up rewind knob release; Film advance indicator
Power Source (for exposure meter)	Two 1.5V alkaline (LR44) or two 1.55V silver oxide (SR44) batteries
Battery Check	Automatic (viewfinder battery check mark blinks if power is insufficient)
Depth-of-Field	Preview button
Dimensions and Weight	134.5(W) x 89(H) x 51(D)mm (5 5/16 x 3 1/2 x 2 inch), approx. 565g (20 oz.) (w/o batteries)

*Specifications and design are subject to change without notice.



F-Distagon T * f/2.8 16mm
<Fisheye>



Distagon T * f/3.5 15mm



Distagon T * f/4 18mm



Distagon T * f/2.8 21mm



Distagon T * f/2.8 25mm



Distagon T * f/2.8 28mm



Distagon T * f/1.4 35mm



Distagon T * f/2.8 35mm



PC-Distagon T * f/2.8 35mm
<Shift>



Planar T * f/1.4 50mm



Planar T * f/1.7 50mm



Planar T * f/1.4 85mm



Planar T * f/2 100mm



Sonnar T * f/2.8 135mm

Carl Zeiss T * Lenses — A Full Range of Superior Interchangeable Optics
from 15mm through 1000mm to Meet All Creative Photographic Needs.



Sonnar T * f/2.8 180mm



Tele-Tessar T * f/4 300mm



Aposonnar T * f/2 200 mm



Vario-Sonnar T * f/3.3-4 28 ~ 85mm



Vario-Sonnar T * f/3.4 35 ~ 70mm



Vario-Sonnar T * f/4 80 ~ 200mm



Makro-Planar T * f/2.8 60mm <Macro>



Makro-Planar T * f/2.8 100mm <Macro>



Mutar T * I (2X)



Mutar T * II (2X)

Carl Zeiss T* Lenses

Lens	Elements/Groups	Angular Field	Minimum Focus	Aperture Range	Diameter × Length	Weight
F-DistagonT* f/2.8 16mm (Fisheye) (AE) ★	8-7	180°	0.3 m (1ft)	f/2.8-f/22	70.0 × 61.5mm	460g
DistagonT* f/3.5 15mm (AE) ★	13-12⑥	110°	0.16 m (6")	f/3.5-f/22	83.5 × 94.0mm	815g
DistagonT* f/4 18mm (MM)	10-9⑥	100°	0.3 m (1ft)	f/4-f/22	70.0 × 51.5mm	350g
DistagonT* f/2.8 21mm (MM)	15-13⑥	92°	0.22m (9")	f/2.8-f/22	85 × 90.5mm	500g
DistagonT* f/2.8 25mm (MM)	8-7	80°	0.25 m (10")	f/2.8-f/22	62.5 × 56.0mm	360g
DistagonT* f/2.8 28mm (MM)	7-7	74°	0.25 m (10")	f/2.8-f/22	62.5 × 50mm	280g
DistagonT* f/1.4 35mm (MM)	9-8⑥①	62° 30'	0.3 m (1ft)	f/1.4-f/16	70.0 × 76.0mm	600g
DistagonT* f/2.8 35mm (MM)	6-6	62°	0.4 m (1.5ft)	f/2.8-f/22	62.5 × 46.0mm	245g
PC-DistagonT* f/2.8 35mm (Shift) ★	9-9⑥	63° (83°)	0.3 m (1ft)	f/2.8-f/22	70.0 × 85.5mm	740g
□ TessarT* f/2.8 45mm (MM)	4-3	50°	0.6 m (2ft)	f/2.8-f/22	60.0 × 18.0mm	90g
PlanarT* f/1.4 50mm (MM)	7-6	45°	0.45 m (1.5ft)	f/1.4-f/16	62.5 × 41.0mm	275g
PlanarT* f/1.7 50mm (MM)	7-6	45°	0.6 m (2ft)	f/1.7-f/16	61.0 × 36.5mm	190g
□ PlanarT* f/1.2 85mm (MM) ★	8-7⑥	29°	1.0 m (3.5ft)	f/1.2-f/16	80.0 × 72.5mm	875g
PlanarT* f/1.4 85mm (MM)	6-5	28° 30'	1.0 m (3.5ft)	f/1.4-f/16	70.0 × 64.0mm	595g
PlanarT* f/2 100mm (MM)	6-5	24° 30'	1.0 m (3.5ft)	f/2-f/22	70.0 × 84.0mm	670g
□ PlanarT* f/2 135mm (MM) ★	5-5	18° 30'	1.5 m (5ft)	f/2-f/22	75.0 × 101.0mm	830g
SonnarT* f/2.8 135mm (MM)	5-4	18° 30'	1.6 m (5.5ft)	f/2.8-f/22	68.5 × 93.0mm	585g
SonnarT* f/2.8 180mm (MM)	6-5⑥	14°	1.4 m (5ft)	f/2.8-f/22	78.0 × 131.0mm	815g
AposonnarT* f/2.0 200mm (MM)	10-8	12°	1.8m (6ft)	f/2-f/16	120.8 × 182.0mm	2,600g
□ Tele-TessarT* f/4 200mm (MM/AE) ★	6-5	12° 40'	1.5 m (5ft)	f/4-f/32	66.5 × 122.0mm	550g
□ Tele-ApotessarT* f/2.8 300mm (AE) ★	8-7	8° 10'	3.5 m (11.5ft)	f/2.8-f/22	120.0 × 244.0mm	2,600g
Tele-TessarT* f/4 300mm (MM)	5-5	8° 15'	3.5 m (11.5ft)	f/4-f/32	88.0 × 205.0mm	1,200g
□ ○ Mirotar f/4.5 500mm ★	5-5	5°	3.5 m (11.5ft)	—	151.0 × 225.0mm	4,500g
□ ○ Mirotar f/5.6 1000mm ★	5-5	2° 30' (4° 30')	12.0 m (39.5ft)	—	250.0 × 470.0mm	16,500g
Vario-SonnarT* f/3.3~f/4 28~85mm (MM)	16-13	75°~29°	0.6 m (2ft)	f/3.3-f/22	85.0 × 99.5mm	735g
Vario-SonnarT* f/3.4 35~70mm (MM)	10-10	64°~34°	0.7 m (0.25m/M1:2.5)	f/3.4-f/22	70.0 × 80.5mm	475g
□ Vario-SonnarT* f/3.3-f/4.5 35~135mm (MM)	16-15	61°~19°	1.3m (0.26/M1:4)	f/3.3-f/22	85.0 × 107.0mm	860g
Vario-SonnarT* f/4 80~200mm (MM)	13-10	33° 30'~12° 10'	1.0 m (3.5ft)	f/4-f/22	67.0 × 160.5mm	680g
Makro-PlanarT* f/2.8 60mm <Macro> (AE)	6-4	39°	0.24m (M1:1)	f/2.8-f/22	75.5 × 74.0mm	570g
□ Makro-PlanarT* f/2.8 60mm C <Macro> (MM)	6-4	39°	0.27m (M1:2)	f/2.8-f/22	65.8 × 51.4mm	260g
Makro-PlanarT* f/2.8 100mm <Macro> (AE)	7-7	24°	0.41m (M1:1)	f/2.8-f/22	76.0 × 86.5mm	740g
□ ○ N-Mirotar 210mm ★	4-4	8°	approx. 20.0m (70ft)	—	90.0 × 365.0mm	2,170g
MutarT* I (2x) (AE)	6-5	—	—	—	64.5 × 37.5mm	240g
MutarT* II (2x) (AE)	7-4	—	—	—	64.5 × 51.0mm	300g

Notes: (MM) for Multi-mode exposure (AE) for Aperture priority AE or Manual exposure (MM/AE) both types available ⑥-Floating element used
 ①-Aspherical lens element ○ Mark-Special order required ★: Made by Carl Zeiss (Germany) NO ★: Made by Kyocera (Japan) under supervision of Carl Zeiss.
 Lenses preceded by □ are not illustrated at left

MutarT* I (2x) & II (2x) plus Carl Zeiss T* Lenses

Lens	MutarT* I	MutarT* II	Lens	MutarT* I	MutarT* II
F-DistagonT* f/2.8 16mm	○	—	SonnarT* f/2.8 135mm	⊙	☆
DistagonT* f/3.5 15mm	○	—	SonnarT* f/2.8 180mm	⊙	☆
DistagonT* f/4 18mm	○	—	AposonnarT* f/2.0 200mm	⊙	☆
DistagonT* f/2.8 21mm	○	—	Tele-TessarT* f/3.5 200mm	⊙	—
DistagonT* f/2.8 25mm	○	—	Tele-TessarT* f/4 200mm	*②	☆
DistagonT* f/2 28mm	○	—	Tele-ApotessarT* f/2.8 300mm	○	☆
DistagonT* f/2.8 28mm	○	—	Tele-TessarT* f/4 300mm	*②	☆
DistagonT* f/1.4 35mm	○	—	Mirotar f/4.5 500mm	○	⊙
DistagonT* f/2.8 35mm	○	—	Mirotar f/5.6 1000mm	○	⊙
PC-DistagonT* f/2.8 35mm	*①	—	Vario-SonnarT* f/3.3~f/4 28~85mm	○	—
TessarT* f/2.8 45mm	○	—	Vario-SonnarT* f/3.4 35~70mm	○	—
PlanarT* f/1.4 50mm	○	—	Vario-SonnarT* f/3.3~f/4.5 35~135mm	○	—
PlanarT* f/1.7 50mm	○	—	Vario-SonnarT* f/3.5 40~80mm	○	—
PlanarT* f/1.2 85mm	○	—	Vario-SonnarT* f/3.5 70~210mm	*②	—
PlanarT* f/1.4 85mm	○	—	Vario-SonnarT* f/4 80~200mm	○	—
SonnarT* f/2.8 85mm	○	—	Makro-PlanarT* f/2.8 60mm	*②	—
PlanarT* f/2 100mm	⊙	○	Makro-PlanarT* f/2.8 60mm C	*③	—
SonnarT* f/3.5 100mm	○	—	Makro-PlanarT* f/2.8 100mm	*③	—
PlanarT* f/2 135mm	⊙	○	S-PlanarT* f/4 100mm	*④	○

☆: Lens performance especially favorable. ⊙: Favorable ○: Coupling possible. —: Coupling not possible. *①: Using perspective control, vignetting may occur when the lens is stopped down to small apertures. *②: Vignetting at macro setting and small apertures. *③: Edges darken at macro setting. *④: Vignetting at macro setting.
 When the MutarT* I (2x) or II (2x) is combined with a Carl Zeiss T* lens, high quality image reproduction is comparable to that with the lens alone. Coupling characteristics for these extenders with each Carl Zeiss T* lens is shown in the above table.



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