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SUPER IKONTA

$1\frac{3}{4}$" x $2\frac{1}{4}$"

INSTRUCTION BOOK

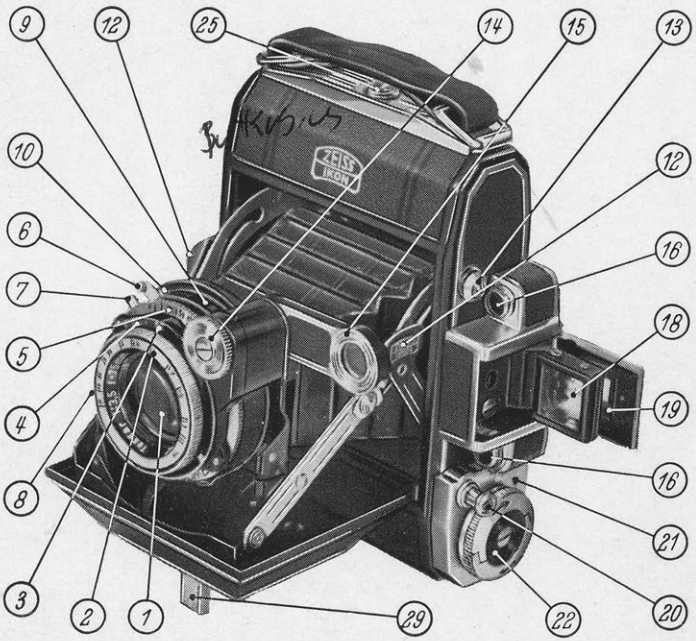
ZEISS IKON

ZEISS IKON AG STUTTGART

PARTS OF THE SUPER IKONTA 1¾" x 2¼"

1 Lens
2 Lens mount with distance scale
3 Distance setting mark
4 Depth-of-focus scale
5 Shutter speed setting ring
6 Shutter setting lever
7 Flash contact
8 Synchro lever
9 Diaphragm scale
10 Diaphragm setting mark
11 Milled diaphragm setting ring (see page 9)
12 Struts
13 Push button for opening camera
14 Setting wheel for rangefinder
15 Pivoted arm of rangefinder
16 Rangefinder

Description of parts continued on page 26 of cover.



Good photos

can easily be obtained with your SUPER IKONTA camera. With the small and handy SUPER IKONTA you can not make any mistake when taking pictures and you will always be satisfied with your photos. This instruction booklet is intended to show you the way of making full use of the advantages of your camera. Before loading the first film, exercise the manipulations described in the booklet. If there should still remain any question, your photo dealer will be pleased to give you the information desired.

The picture on the second page of the cover was taken with a SUPER IKONTA *1¾" x 2¼" camera with f/11 at 1/100 sec.*

ZEISS IKON

FEATURES OF THE SUPER IKONTA 1¾" x 2¼"

The SUPER IKONTA 1¾" x 2¼" is a high quality roll film camera for 16 1¾" x 2¼" pictures on the usual B II/8 (120) roll film.

The value of a camera depends mainly on the quality of the lens. In consideration of this fact the SUPER IKONTA has been equipped with a high-speed ZEISS Tessar lens of an aperture of f/3.5 and 75 mm focus, which already for decades has given proof of its efficiency. It is colour corrected and coated and renders black and white as well as colour photographs of matchless definition and plasticity.

The built-in rotating wedge-type rangefinder is coupled to the lens, so that the required distance can always be set correctly.

The correct framing of the picture, even in the case of quickly moving objects, is easily done with the van Albada sports finder.

The Synchro-Compur shutter permits exposure times from 1 to 1/500 sec. and time exposures of any duration. Owing to its flash synchronisation contact it can be coupled to any kind of flash unit.

The SUPER IKONTA is provided with a red-dot setting, which makes it particularly suitable for snapshots.

The shutter lock prevents double exposures, while blank frames are avoided by a signal device.

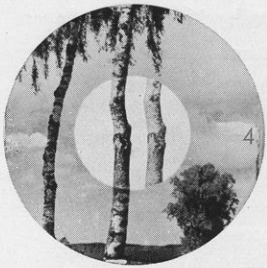
Preparations for the exposure

Before each exposure the distance, the lens aperture and the exposure time have to be set.

THE THREE SETTINGS

SETTING OF DISTANCE

The lens is set by means of the built-in rotating wedge-type rangefinder. Swing out pivoted arm (15) and view the subject through the eyepiece (17). In the middle of the picture field you will see a bright circular field in which the vertical lines appear duplicated (Fig. 2). By turning wheel (14) these double contours in the middle of the rangefinder field are brought to coincidence (Fig. 3) and the lens is simultaneously focused on the distance required. This distance can be verified at the setting mark (3) on the scale of the lens mount (2).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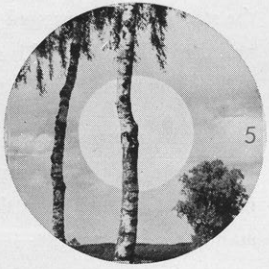
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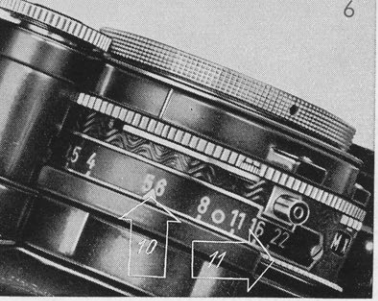


SETTING THE DIAPHRAGM

Turn milled ring (11) until the red triangular mark (10) indicates the desired lens stop.

SETTING THE EXPOSURE TIME

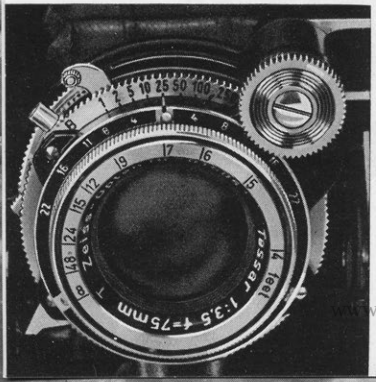
The exposure time is set by turning milled ring (5), on which are marked the exposure times, until the value desired is in front of the red mark. The figures indicate fractions of a second; "50", for instance, means 1/50 sec., etc. When setting B is used the shutter remains open as long as the release button (20) is pressed down (see page 16). When setting the shutter for 1/500 sec. a slight resistance has to be overcome. The shutter is set by pushing setting lever (6) in the direction of the setting wheel of the rangefinder. It does not matter whether the exposure time is set before or after setting the shutter. Only in the case of 1/500 sec. the exposure time must be set beforehand.

INTERDEPENDENCE OF THE SETTINGS

DISTANCE AND LENS APERTURE

The distance and the lens aperture are related to each other. If by means of the rangefinder the lens has been focused on a certain distance, the lens will record sharply not only objects at this distance but also objects that are a little nearer or further off. The range recorded sharply by the lens is called depth of focus. It is very small at full aperture (f/3.5) and increases proportionately to the reduction of the lens aperture and the increase of the lens aperture value.

The depth of focus resulting from the use of the various lens stops can be read off from the depth-of-focus ring (4). For this purpose the lens stops have been marked at the left and right of the distance setting mark (3). The figures on the distance scale (2) that are opposite these values indicate the extension of the depth of focus. When setting the lens, for instance, at 7 ft., the number 8 on the right side is opposite 6 ft. on the distance scale, and the number 8 on the left side, opposite 9 ft. This means that with a distance setting of 7 ft. and lens aperture 8 everything from 6 ft. to 9 ft. is recorded sharply.



Exact values will be seen in the table on page 11.

You can, of course, also proceed the other way round, i. e. measure the front and the rear limit of the area that has to be reproduced sharply and then determine the required lens stop by means of the depth-of-focus scale.

DEPTH-OF-FOCUS SCALE FOR SUPER IKONTA 1 3/4" x 2 1/4" (focal length 75 mm)

Lens setting feet	DIAPHRAGM 3.5	4.0	4.5 (intermed. value)	5.6
inf	70' 8"– ∞	61' 8"– ∞	55' 0"– ∞	44' 4"– ∞
48	28' 8"–147' 8"	27' 4"–210' 0"	25' 8"–364' 0"	23' 4"– ∞
24	18' 0"– 36' 0"	17' 4"– 38' 8"	17' 0"– 42' 0"	15' 8"– 51' 4"
15	12' 8"– 19' 0"	12' 4"– 19' 8"	12' 0"– 20' 4"	11' 4"– 22' 4"
12	10' 4"– 14' 4"	10' 4"– 14' 8"	10' 0"– 15' 0"	9' 8"– 16' 4"
9	8' 0"– 10' 4"	8' 0"– 10' 4"	7' 8"– 10' 8"	7' 8"– 11' 0"
7	6' 6"– 7' 8"	6' 4"– 7' 8"	6' 4"– 8' 0"	6' 2"– 8' 4"
6	5' 6"– 6' 6"	5' 6"– 6' 6"	5' 6"– 6' 8"	5' 4"– 6'10"
5	4' 8.5"– 5' 4"	4' 8"– 5' 4"	4' 7.5"– 5' 6"	4' 7"– 5' 6"
4	3'10" – 4' 2,5"	3' 9,5"– 4' 3"	3' 9"– 4' 3"	3' 9"– 4' 4"

Lens setting feet	DIAPHRAGM 8	11	16	22
inf	31' 0"– ∞	22' 8"– ∞	15' 8"– ∞	11' 4"– ∞
48	19' 0"– ∞	15' 8"– ∞	12' 0"– ∞	9' 4"– ∞
24	13' 8"–101' 0"	11' 8"– ∞	9' 8"– ∞	8' 0"– ∞
15	10' 4"– 28' 0"	9' 4"– 42' 4"	8' 0"–265' 4"	6' 8"– ∞
12	8' 8"– 19' 0"	8' 0"– 24' 4"	7' 0"– 47' 0"	6' 0"– ∞
9	7' 0"– 12' 4"	6' 6"– 14' 4"	5'10"– 19' 8"	5' 2"– 35' 8"
7	5'10"– 8' 8"	5' 6"– 9' 8"	5' 0"– 12' 0"	4' 6"– 16' 4"
6	5' 2"– 7' 4"	4'10"– 8' 0"	4' 6"– 9' 4"	4' 1"– 11' 8"
5	4' 4.5"– 5'16"	4' 2.5"– 6' 2"	3'11"– 7' 0"	3' 7.5"– 8' 4"
4	3' 7.5"– 4' 6"	3' 5.5"– 4' 8.5"	3' 3.5"– 5' 1.5"	3' 1.5"– 5' 8.5"

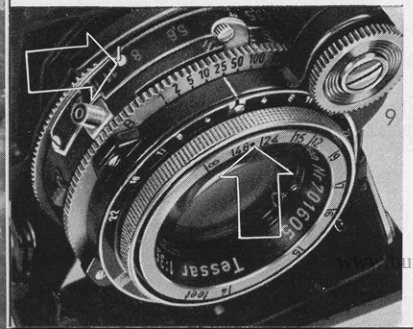
LENS APERTURE AND EXPOSURE TIME

It is recommendable to stop down the lens only to the extent necessary for obtaining the required depth of focus; otherwise the exposure time would have to be extended too much; for, the smaller the lens aperture the longer must be the exposure. The lens stops and the exposure times have been so calculated that the exposure time has to be doubled if the aperture is reduced by one step and viceversa. Thus, $^1/_{25}$ sec. at f/11 corresponds to $^1/_{50}$ sec. at f/8 or to $^1/_{100}$ sec. at f/5.6. The ZEISS IKON exposure meter IKOPHOT (see page 24) permits reading off immediately and without any conversion the corresponding exposure time.

SPECIAL FEATURES

RED-DOT SETTING

The red-dot setting is used when snapshots have to be taken and no time has to be lost for focusing. The diaphragm setting lever and the distance setting mark are set on the red dots. When this setting is used everything from 14 ft. to infinity will be recorded sharply. According to the prevailing lighting conditions exposure times of $^1/_{25}$, $^1/_{50}$ or $^1/_{100}$ sec. have to be



taken. The SUPER IKONTA can be closed also when set in this manner, so that it is ready for action immediately when it is opened.

WORKING WITH A SET DISTANCE

The following method of photographing moving objects has also given good results. If you intend, for instance, taking a photo of a child at play, you set the diaphragm and the exposure time and focus the lens on the most favourable distance. You then observe the child in the rangefinder and approach it until the double images are brought to coincidence. Then you look through the viewfinder and release the shutter.

THE CORRECT EXPOSURE TIME

can be ascertained by means of tables or, very exactly, with the photo-electric exposure meter IKOPHOT, which even gives readings at the light of a candle. The exposure time depends on the lens aperture used, the film speed, the general lighting conditions, and, if colour filters are used, on the filter factors.

BASIC RULE:

Outdoor photographs in bright sunshine:
film speed 32 ASA
diaphragm setting 8
$^1/_{100}$ sec.

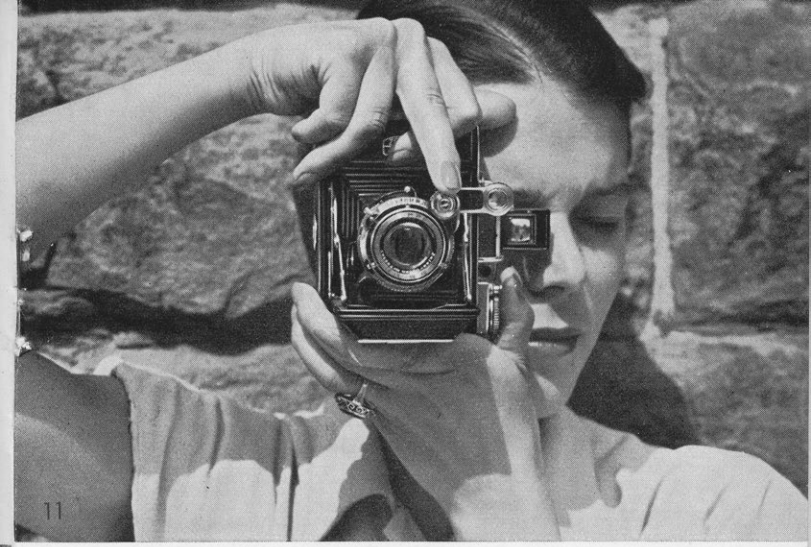
Outdoor photographs, sky overcast:
film speed 32 ASA
diaphragm setting 5.6
$^1/_{50}$ sec.

The exposure

HOW TO HOLD THE CAMERA

During the exposure the SUPER IKONTA must be held absolutely rigidly, in order to get negatives of pin-point definition. For vertical photographs, the camera body must be grasped firmly with both hands. The middle finger of the right hand operates the focusing wheel (14) of the rangefinder, and the index finger of the left hand releases the shutter (20) (fig. 10).

For horizontal pictures, the camera is grasped from above with the right hand, while the left hand supports



11

it from below. The thumb of the left hand operates the body release (fig. 11). Long instantaneous and time exposures have always to be made from a tripod or another solid support. The camera can easily be set up by folding out the camera foot (29). A tripod bushing (28) on the side of the camera is provided for photographs that require the use of a tripod. It will be recommendable to use in this case the ZEISS IKON cable release, which is equipped with a plunger catch for continuous pressure, which is very suitable for long time exposures.

THE ALBADA SPORTSFINDER

On pressing button (13) for opening the camera the optical viewfinder will automatically open. A look through the viewfinder shows the subject to be photographed and a bright deliminitation of the picture field by means of white lines. The viewfinder must be held closely to the eye. The eyepiece (19) should, however, not be pushed forward, as this would cause a distortion of the picture field. Also take care that the horizontal and vertical lines of the subject run parallel to the edges of the viewfinder.

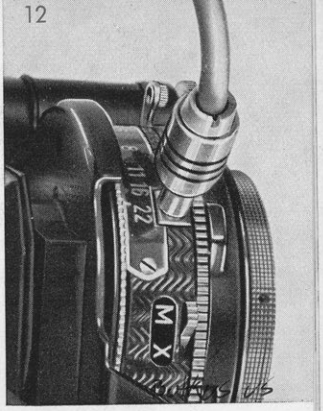
THE RELEASE

The shutter is released by completely pressing down button (20) without jerking. Releasing is possible only if

1. the film has been advanced by one frame, which is indicated by the red dot of signal mark (21);
2. the shutter has been set.

FLASH PHOTOGRAPHS

The fully synchronised shutter can be coupled with any flash unit. The synchro switch permits two positions:



POSITION X

When this position is used the flash is fired at the moment when the shutter is wide open. Electronic flashes are always fired with position X.

POSITION M

This position serves for firing flashes with a pre-ignition that corresponds to the ignition delay of most flash bulbs. This is the reason why position M allows firing of flash bulbs in conjunction with even the shortest shutter speeds.

The Synchro-switch (8) is set either on X or M. The distance, the exposure time, and the lens aperture are set, and the shutter setting lever is wound as usually. The flash cable is fitted to contact nipple (7) and the flash bulb is inserted. On pressing down release (20) the bulb is fired in accordance with the synchronisation setting used and the shutter action.

Our table on page 18 indicates the exposure times to be used with positions X or M for the various types of flash bulbs.

SHUTTER SPEEDS TO BE USED FOR FLASH BULBS

Type of Flash		Synchro-Switch in Position	
		M	X
Osram	X P	1 – 1/50	–
Vacublitz	X 0	1 – 1/50	–
	F 1	1 – 1/25	–
	F 2	1 – 1/25	–
	S 0	1 – 1/25	1/50 – 1/500
	S 1	1 – 1/25	1/50 – 1/500
	S 2	1 – 1/25	1/50 – 1/500
Philips	PF 3	1 – 1/25	1/50 – 1/100
Photoflux	PF 14	1 – 1/25	1/50 – 1/500
	PF 25	1 – 1/25	1/50 – 1/500
	PF 56	1 – 1/25	1/50 – 1/500
	PF 24	1 – 1/25	1/50 – 1/500
	PF 45	1 – 1/25	1/50 – 1/500
	PF 110	1 – 1/10	1/25 – 1/50
General	SM	1 – 1/50	–
Electric	No. 5	1 – 1/25	1/50 – 1/500
Westinghouse	No. 11	1 – 1/25	1/50 – 1/500
	No. 22	1 – 1/25	1/50 – 1/500
	No. 6	1 – 1/25	1/50 – 1/500
	No. 31	1 – 1/25	1/50 – 1/500
	No. 50	1 – 1/10	1/25 – 1/50
Sylvania	SF	1 – 1/50	–
Superflash,	No. 0	1 – 1/25	1/50 – 1/500
Wabash	No. 2	1 – 1/25	1/50 – 1/500
	Press 25	1 – 1/25	1/50 – 1/500
	Press 40	1 – 1/25	1/50 – 1/500
	No. 3	1 – 1/10	1/25 – 1/50
Electronic flashes		1 – 1/500	–

Manipulations after the exposure

FILM TRANSPORT

After each exposure the film has to be advanced by one frame. Open slide (24) of film window (23) in the back of the camera and wind film winding button (22) until the next number appears in the window. Then shut again the slide of the window.

PREVENTION OF DOUBLE EXPOSURES

Accidental double exposures are not possible with the SUPER IKONTA, as the release button can be pressed down only when the film has been advanced. When the film has been properly advanced a red point will show at signal mark (21). Thereby also blank frames are avoided.

LOADING THE CAMERA

After pushing button (25) in the direction of the arrow the camera can be opened. For loading the camera with a B II/8 (120) roll film, pull out the spring prong (26) at the side of the camera and insert the spool into the upper spool chamber of the open camera, so that the end of the red protective paper is directed towards the empty take-up spool. Now slit the lable of the film and pull out the pro-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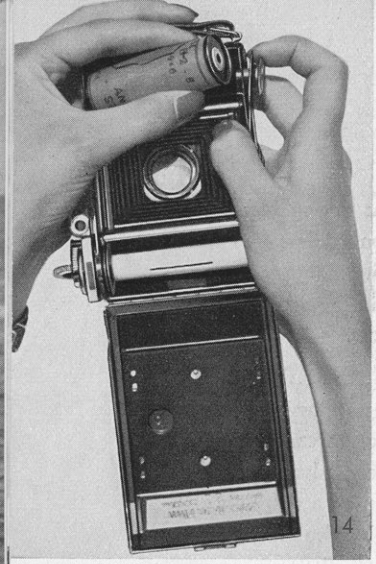

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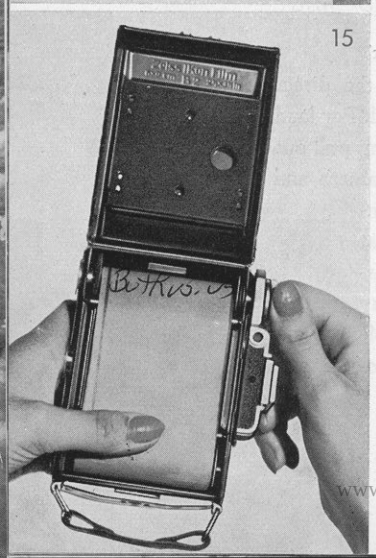

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tective paper, so that its beginning can be inserted into the wider slot of the take-up spool. Tighten the protective paper by turning the folding film winding key (22) several times. Take care that the protective paper remains smooth on both sides of the spool when being wound on. Close the camera back. Turn the film winding key (22) until number "1" appears in the film window. After the film window has been closed the SUPER IKONTA is ready for the first exposure.

EXCHANGE OF FILM

After the 16th exposure, turn the film winding key (22) until the end of the protective paper passes the film window (23). Open the camera back, pull out the lower spring prong, carefully remove the spool in the shadow (not in bright sunshine) and glue it. Before loading a new film, remove the empty spool and insert it into the take-up spool chamber. By turning the film winding key make sure that the empty spool has engaged properly with the prong of the winding key.

Accessories

THE EVEREADY CASE

The convenient Eveready Case protects the SUPER IKONTA from dust and scratches. The camera is firmly secured in the case by a screw. The case need not be removed for taking a picture.

COLOUR FILTERS

ZEISS IKON colour filters (yellow, yellow green, orange, red and ultraviolet) are made for obtaining special effects. They are screwed on the lens mount (Ø 35.5 mm) and need not be removed when the camera is closed. When filters are used the exposure time must be prolonged in accordance with the filter factor, which is engraved on the the mount of the ZEISS IKON filters.

POLARIZATION FILTER

The polarization filter ZEISS Bernotar (Ø 32 mm) is slipped on the lens when the photographer wishes to eliminate reflexes on shining surfaces of the subject. The exposure time must in this case be multiplied by 3.

SUPPLEMENTARY LENSES FOR CLOSE-UPS (ZEISS PROXAR)

The SUPER IKONTA can be focused on distances down to 3' 11 1/4". When photographs at shorter distances are to be taken, one of the supplementary lenses ZEISS Proxar Ø 32 mm has to fitted on the lens. The Proxar lens f = 1 m is used for distances down to 1' 7 3/4" (50 cm), and the Proxar lens f = 0.5 m, for distances down to 1' 1 3/4" (35 cm). The scale of reproduction and the size of the area reproduced can be seen in the table on page 24.

THE LENS HOOD

The lens hood prevents reflexes and flare when you are photographing against the light and protects the lens from rain and snow. The ZEISS IKON lens hood (Ø 32 mm) can also be slipped on ZEISS IKON filters and ZEISS Proxar lenses.

CABLE RELEASE

A cable release can be fitted into the thread of the body release button (20). It is used for the longer instantaneous and time exposures. The ZEISS IKON cable release is very suitable for long time exposures (shut-

ter setting "B"), as it can be locked for continuous pressure.

COLOUR PHOTOGRAPHS

The excellent quality and colour correction of the ZEISS Tessar accounts for the beautiful colour photographs that can be taken with the SUPER IKONTA. As colour films, contrary to black and white films, have only a limited latitude the exposure time must be very carefully set for colour photographs. The ZEISS IKON photo-electric exposure meter will help you to find the correct exposure time.

FLASH PHOTOGRAPHS

If you want to take flash photographs, you will find the ZEISS IKON flash units IKOBLITZ I and IKOBLITZ II and the ZEISS IKON electronic flash unit IKOTRON very useful.

ZEISS IKON

TABLE FOR USE OF CLOSE-UP LENSES (ZEISS Proxar)

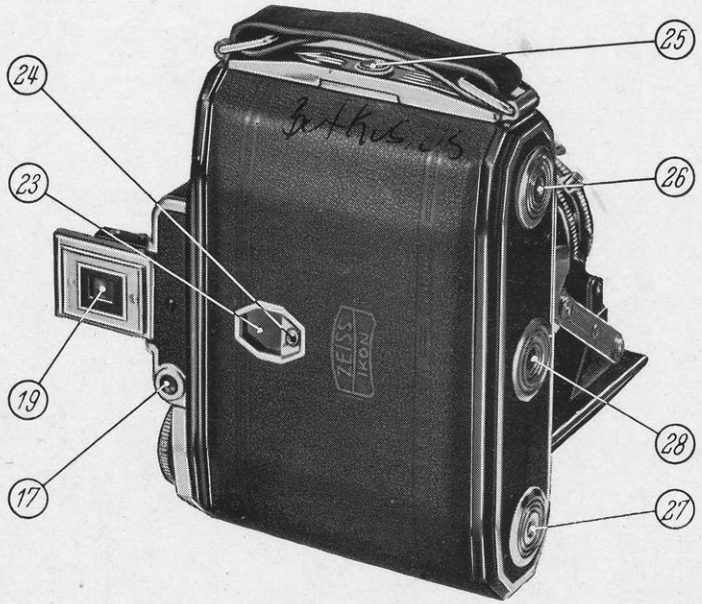
The distance is measured from the front rim of the lens mount to the subject.
A sufficient depth of focus is obtained already at f/8.

Lens setting feet	Distance between obj. and camera	Reduction 1 :	Size of picture field Width Height	Distance between obj. and camera	Reduction 1 :	Size of picture field Width Height
inf.	3' 3 1/4"	13.3	1' 10" x 2' 6"	1' 7 3/4"	6.7	11" x 1' 3 1/4"
48'	3' 1/2"	12.3	1' 8 1/4" x 2' 3 3/4"	1' 7"	6.4	10 1/2" x 1' 2 1/2"
24'	2' 10 1/2"	11.7	1' 7 1/4" x 2' 2 1/2"	1' 6 1/4"	6.2	10 1/4" x 1' 2"
15'	2' 8"	10.8	1' 5 3/4" x 2' 1/2"	1' 5 1/2"	5.9	9 3/4" x 1' 1 1/4"
12'	2' 6 1/2"	10.3	1' 5" x 1' 11 1/4"	1' 5"	5.7	9 1/2" x 1' 1"
9'	2' 4 1/4"	9.5	1' 3 3/4" x 1' 9 1/2"	1' 4 1/2"	5.5	9" x 1' 1/2"
7'	2' 2 1/4"	8.8	1' 2 1/2" x 1' 8"	1' 3 3/4"	5.3	8 3/4" x 1'
6'	2' 3/4"	8.2	1' 1 1/2" x 1' 6 3/4"	1' 3 1/4"	5.1	8 1/2" x 11 1/2"
5'	1' 11"	7.6	1' 1/2" x 1' 5 1/4"	1' 2 1/4"	4.8	8" x 10 3/4"
4'	1' 9 1/4"	6.9	11 1/2" x 1' 3 1/2"	1' 1 1/2"	4.5	7 3/4" x 10 1/4"
	F = 1 m			F = 0.5 m		

PARTS OF THE SUPER IKONTA 1¾" x 2¼"

17 Eyepiece of rangefinder
18 Albada viewfinder
19 Eyepiece of viewfinder
20 Body release with thread for cable release
21 Signal mark for film transport
22 Film winding knob
23 Film window
24 Protective slide for film window
25 Knob for opening camera back
26 Spring prong for feed spool
27 Spring prong for take-up spool
28 Tripod bushing
29 Camera foot

Numbers refer in part to front view on page 3.



How to take care of the

SUPER IKONTA

It is advisable to dust the interior of the camera from time to time with a soft camel hair brush. If the lens is dirty, clean it carefully with a soft, well washed, dry piece of linen. Dust particles should be removed beforehand with a soft camel hair brush. The valuable lens should, however, be cleaned only when it is really necessary.

SERIAL NUMBER

A serial number is engraved on every SUPER IKONTA, and the ZEISS lens with which the camera is equipped is also numbered. We recommend every SUPER IKONTA owner to take a note of these two numbers in order to be able to prove his ownership if the camera should be lost or exchanged.

Small changes on the camera as compared to the description may have been necessary due to technical progress.

STUTTGART

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