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16 mm. cine camera.



for 50 and 100 feet cine spools

Many things for which the cine amateur has up to now envied the professional camera-man—all the technical refinements that go to make up the niceties of the modern film—are now available to him in the Movikon. Whether it is direct focussing on the film, slow-motion or single-picture action, or whether it is the possibility of altering the exposure given by the shutter . . . all these things—and many others also—are incorporated in the Movikon.

Moreover a tripod is quite unnecessary—although one can be used if desired, as the powerful clockwork motor does away with handle turning so that for "flexibility" the Movikon is more useful than any professional camera. Again the introduction of the delayed action release in conjunction with the predeterminable footage device even opens the way to an "autobiographical" film.

There is the possibility of filming "round the corner." There are the six interchangeable lenses—from the ultra-rapid Sonnar of I in. focal length, aperture f/1.4, to the $7\frac{1}{8}$ in. telephoto lens. There is the direct-vision finder with automatic adjustment for parallax and last, the dream-come-true of all those who have worked with large aperture lenses—*Automatic focussing by means of a distance meter coupled to the lens*. The Movikon 16 specification is best studied by referring in detail to the illustrations on pages 84/86 and to the paragraphed information given below. The outer casing of the Movikon 16 is a light metal die casting covered with leather. Its strength is ample and forms a foundation upon which has been built a fine precision construction that will give a lifetime of good service.

- 1. Semi-automatic release of the sprocket rollers.
- 2. Reels of either 50 or 100 feet—any make—black and white or colour.
- 3. Plenty of room for the film loop consequently no mistakes in loading.
- 4. Feed sprocket.
- 5. Automatic-opening film gate.
- 6. Lens in bayonet mount.
- 7. Take-up sprocket.
- 8. Semi-automatic release of the sprocket rollers.
- 9. Peepholefordirectfocussingonthefilm.
- 10. New type lock to camera lid.
- **II.** Tell-tale for automatic delayed action release (a piece of paper or card clamped under the hook falls away directly the film starts). 12. Universal finder for various focal lengths of lenses, with automatic parallax correction. A signal appears in the finder tube to show when the reel of film is exposed, while another indicator shows the footage that the motor will still expose. 13. Rotating wedge distance meter coupled to the lens focussing. 14. Large-aperture Zeiss Sonnar lens (f/I.4) of 25 mm. (I inch) focal length. 15. Focussing lever for lens, distance meter, and parallax correction. 16. Angle view finder for taking pictures at right angles to the subject—thus

avoiding camera consciousness.

- 17. Footage indicator for use in connection with automatic delayed action release. This enables one to predetermine the length of shot—up to 20 feet—and thus avoid any waste of film.
- 18. Winding handle for clockwork motor —full wind gives 20 feet.
- 19. Film footage meter, showing length of film exposed.
- 20. Setting disc for single-picture action.
- 21. Setting disc for delayed action release for filming oneself.
- 22. Indicator, giving 12, 16, 24 and 64 frames per second, adjustable while the camera is running.
- 23. Rewind spindle for mixes.
- 24. Exposure release to start and stop the shutter.
- 25. Button operating "direct-focus-onfilm" mechanism.
- 26. Adjustable shutter exposure mechanism. The table gives the limits of the exposures possible using the picture frequencies provided by the camera.

Pictures per second :

16

Shutter

exposure 1/25-1/200 1/30-1/300 sec. Pictures per second :

12

24

64

Shutter

exposure 1/50-1/450 1/125-1/1000 sec.



includes for the first time in cine camera construction, distance meter and automatic compensation for parallax, both coupled with lens focussing.

> Movikon opened, loaded with 100 ft. spool.



Shutter adjustment for varying speed. 1/25 to 1/1000 sec.

MOVIKON 16 PRICES

Code No. 5495 MOVIKON with Zeiss Sonnar f/1.4, focal length 2.5 cm. (1 inch) and coupled distance meter, as described on page 85 98 10 $O(E^*)$ Dimensions : $2\frac{3}{4}'' \times 6\frac{3}{4}'' \times 8''$. Weight : $5\frac{3}{4}$ lbs.

Extra Ler	ises	Focal	length	Coupled		Pric	ce
Code No. 917/5 917/4 917/3 918/1 918/2	Lens Zeiss Tessar $f/2.7$ Zeiss Tessar $f/2.7$ Zeiss Sonnar $f/2.8$ Zeiss Sonnar $f/1.4$ Zeiss Sonnar $f/4$ Zeiss Tele Tessar $f/6.3$	ins. 응동45 2 1 3 7章	cm. 1.5 2.0 5.0 2.5 7.5 18.	Distance Meter No No Yes Yes No	focussed *Fixed focus 18 inches 1 20 inches 1 3 feet 2	C S. 7 15 0 2 7 10 6 5 6 5 2 12	d. 0(E*) 6 0 0 6
918/2		10	18.		5		0 6

* At full aperture everything over 10 feet sharp.

Supplementary Lenses for Close-ups supplied in Bakelite Cases

T 7: The first and Trive Common first focal langth of mon

For Zeiss	Tessar $f/2.7$, focal	length	15 mm.	For Zeiss Sonnar $f/1.4$, foca.	l length	1 25 m	m.
Code No.	Focus	£	s. d.	Code No. Focus	£	s. d.	
999/I	10-3 feet	0	12 6	$995/28 3-1\frac{1}{2}$ feet	0		
999/2	3-2 feet	0	12 6		0		
999/3	$2-1\frac{1}{2}$ feet	0	12 6				
999/31	All 3 lenses in ca	se 1	17 6	995/33 All 3 lenses in case	1	17 6)" <mark>-</mark> "
	C1			1			Ē

Zeiss Tessar f/2.7, 20 mm., focusses to 18 inches. Supplementary lenses not required.

Yellow Filters supplied in Bakelite Cases

S1 light, S2 medium, S3 dark.When ordering please state kind required.For Zeiss Tessar f/2.7 focal length 15 mm.For Zeiss Sonnar f/1.4 focal length 25 mm.Code No.£ s. d.Code No.£ s. d.989/1Single Yellow Filter0 12 6988/7Single Yellow Filter .. 0 10 6(E*)989/313 Filters in case..1 17 6988/31 3 Filters in case..For Zeiss Tessar f/2.7For Zeiss Sonnar f/2.8For Zeiss Sonnar f/4focal length 20 mm.focal length 50 mm.focal length 75 mm.Code No.s. d.Code No.s. d.990/1S2 Yellow988/9S2 Yellow988/8 S2 YellowFilter9 6Filter20 0Filter

Accessories

Code No.			Ç	s.	d.
1732/10	Brown Leather Case for the Movikon with 6 pockets to take supplementary lenses, yellow filters, long-focus lens and colour filter		4	15	$0(\mathbf{E}^{\star})$
	Brown Leather Case, simple pattern, otherwise as above, velve		2	7	4
	lined, with lock, key and shoulder strap			7	
1647	Special Metal Tripod with tilting panoram head	•	/	10	0
1647/1	Case for Tripod	. (0	7	6
1628/2	Ball and Socket Joint for Tripod	•	1	1	6
1630/3	Tilting Head, tilting to an angle of 90 degrees, with clamp .		1	16	0
5495/24	Focussing Magnifier		2	15	0
5490/15	Lengthening Adapter for increasing the lens extension (using su				
	plementary lens No. 995/30 8 ins. distance can be focussed) .	•	1	0	0
5495/25	Brilliant Prism Finder		3	15	0
5495/27	Fade-in and out Iris Diaphragm Arrangement for Sonnar $f/1.4$.		5	0	0
5495/26	Device to read Iris diaphragm stop from the rear	•	1	2	6

Many other accessories are available for Movikon 16, *e.g.* green and red filters, supplementary attachment for "soft focus" effects, prism and other finders, reproduction apparatus, special sighting devices, electric motor drive, etc. For particulars see Movikon brochure No. K574. For Zeiss Ikon projectors see our special projection lists.



New Model for 1937.

Using either Kodak double-eight spools of 25 feet or Agfa single or straight eight.

Movikon 8

showing front control panel and location of other controls and indicators.





Costs of running play a more important part in amateur cinematography than the initial cost of the apparatus. This is one reason which prompted Zeiss Ikon to introduce the Movikon 8, the cost of 8 mm. film, picture content for picture content, being only a little over one-third that of 16 mm. But the screen enlargement required is extremely high when using so small a film picture, so the camera using 8 mm. film must be, before all things, a precision instrument of the highest class. Such is the Movikon 8. The general construction follows Movikon 16 but owing to the short focal length of the normal lens no focussing is necessary, so no distance meter is fitted.

The definition given by the Movikon 8 is so fine that screen picures as large as 6 feet wide can be shown.

SPECIFICATION

Body	-	-	Light aluminium casting of great strength.
Covering -		-	Choice of black or silver-grey morocco leather.
Mechanism			All working parts made from best material and worked to precision

Mechanism – –	All working parts made from best material and worked to precision
Internet Class Ma	standards and safely housed to avoid damage.
Intermittent Claw Mo	
Gate	Easily detachable and therefore accessible for cleaning.
	Giving simple loading facilities.
Two Width Film	By the introduction of a reversible bobbin either Kodak double
Device	eight or Agfa straight eight film can be used at will. Ordinary
	spool loading is standard.
Motor	Strong clockwork motor runs 12 feet of film at a perfectly even
	speed throughout. Long winding handle.
Footage Indicators -	Two. One showing length of film remaining to be exposed, the
3	other recording footage motor will draw through or for predeter-
	mining the length of a "delayed action" shot.
Finder -	Direct vision finder, suitable for both 1 cm. and 2 cm. lenses.
2 mach	Two signal devices are shown in the finder, one indicating when
	film has been entirely used, the other amount of footage clockwork
	motor will draw through. Finder can also be used at right angles
	to subject, thus avoiding camera consciousness. Shoe in front of
***	camera for attaching waist level finders.
Focussing	Fixed for 1 cm. lens, focussing mount supplied for 2 cm. focal
	length.
Picture Speeds	
Delayed Action	With signal indicator. Releases shutter after 10-12 seconds
Release	
Single Picture Device	
Controls	Release for interchanging lenses, shutter release, signal device for
	delayed action, change-over for single picture, normal running
	and delayed action, also picture speed lever, all located on one
	panel in front of camera. Wire releasing device also provided,
	winding lever, footage indicators and delayed action winder on
	side of camera.
Lens	
	Zeiss Sonnar $f/2$, $2/5''$ (I cm.) focal length, with Iris diaphragm in interchangeable bayonet mount is fitted as standard. Fixed focus
	interchangeable bayonet mount, is fitted as standard. Fixed focus.
	Zeiss Proxars for focussing distances closer than 3 feet. The
Dimminus	Sonnar possesses microscopic resolving power.
	$5\frac{1}{4}'' \times 2\frac{5}{8}'' \times 4''$.
Weight	$3\frac{1}{4}$ lbs. approx.

MOVIKON 8 PRICES

Code No.		£.	s.	d.	
5500	MOVIKON 8, covered in black or grey leather with interchangeable Zeiss Sonnar $f/2$, focal length $2/5''$ (1 cm.), fixed-focus type, giving sharp pictures between 3 feet and infinity	48	0.00	6 ((E*
920/4	Zeiss Tessar $f/2.7$, focal length $4/5''$ (2 cm.), focussing mount, for distances between 18'' and infinity	10	2	6	
1732/11	Leather Case lined	1	2	6	
989/11	Yellow Filter, S1, S2 or S3, in box each	0	12	6	
989/33	Set of 3 Yellow Filters, grades S1 (very light), S2 (light) and S3 (medium), in case	1	17	6	
990/I	Yellow Filter S2 (light) in box, for Tessar 4/5" (2 cm.)	0	9	6	
	Proxar 1 × 21 Supplementary Lens in box for focussing on distances between 3 feet and 27 inches	0	16	0	
	Proxar 2×21 Supplementary Lens in box for focussing on distances between 27 and 18 inches	0	16	0	
Special Mo	wikon 8 Brochure No. K752 free on application.				

For Zeiss Ikon Projectors see our special projection lists.

R

(E*)

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ACCESSORIES FOR USING THE MOVIKONI6 FOR

CINE MICRO WORK



The Movikon can conveniently be used by means of the special accessories listed on this page for cine-micrography. For this purpose we specially recommend the Mikrophot which, as the diagram shows, is attached to the ocular of the microscope. Two prisms in the Mikrophot are mounted together to form a cube with a silver coating between them. Thus the greater part of the light is reflected to the film. Sharp focussing on the film can be effected through the ocular.

The illuminating arrangement consists of a stand with a tilting housing, in which is a special low voltage lamp. For use when preparations sensitive to heat are being photographed, we recommend our heat absorption cell, which can also be used for filter solutions. The intensity of illumination is sufficient to permit of the usual exposures of about 1/30th econd with 800-1,000 times magnification.

011/20	$(/.) \land (/.) (/.) (/.) (/.) (/.) (/.) (/.) (/.)$	0		0	
811/29	Tube Connecting Piece for connecting Movikon with Mikrophot	0	12	6	
8009/8	Baseboard	0	16	0	
8009/10	Metal Stand for Movikon	3	16	0	
8009/4	Rod for attaching camera	0	10	0	
1471/2	Heat Absorption Cell	1	15	0	
8009/9	Holder for Heat Absorption Cell	0	11	0	
8009/1	Illuminating Arrangement, without lamp	7	12	6	(\mathbf{F})
8009/7	Transformer for alternating current, to suit 110 and 220/230				(- /
	volts	4	16	0	(E*)
1558/39	Resistance for direct current, to suit all the following voltages :				(- /
	100, 110, 125, 150, 220 and 250	3	8	0	
5439/9	Electric Bulb, 25 watts, 6 volts	0	3	6 ((\mathbf{F})
8009/0	Wood Polished Case to contain whole of above outfit	4	7		Ê*)
The comp	lete equipment consists of the following parts, all of which are	liste	d a		
811/30, 80	09/6, 811/26, 811/29, 8009/8, 8009/10, 8009/4, 1471/2, 8009/9,	800		51:	20/0
The wood	case takes all the parts just mentioned. Further, for alternating	CUT	7/1) rent	045 0 tt	19/9.
former, an	d for direct current a resistance will be required.	cun	luit	au	ans-
When usin	ig the micro equipment it is necessary to use the focussing magnin	6	Mo	~ 10	- 1- 1
(see page 8	(37)	lier]	INU.	549	5/24
(our page of	5/).				

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HELINOX PROJECTION PRINTERS

For enlarging $I_{\frac{5}{8}'' \times I_{\frac{1}{4}''}}$ (3 × 4 cm.) negatives—taken with Baby Box Tengor, Baby Ikonta, etc.

> No. 1411/1 gives enlarged prints $3\frac{1}{2}'' \times 2\frac{1}{2}''$ No. 1411/2 gives enlarged prints $4\frac{3}{4}'' \times 3\frac{1}{2}''$ or that size on postcards $5\frac{1}{2}'' \times 3\frac{1}{2}''$.

For enlarging 24×36 mm. negatives—taken with Contax and cameras using similar sizes.

> No. 1411/6 gives enlarged prints $3'' \times 2''$ No. 1411/7 gives enlarged prints $4\frac{1}{8}'' \times 2\frac{3}{4}''$



Miniature photography has been successful from the start, a fact which is really not surprising, since these delightfully small cameras give perfect, crisp negatives.

A complement to the miniature camera is now provided in the Helinox Enlarging Printer. The manipulation of this instrument is very simple. It requires no focussing, since the setting of the lens is done at the factory. The Helinox is made in the following sizes, 1411/1 and 1411/2, for making prints from $1\frac{5}{8}'' \times 1\frac{1}{4}''$ (3×4 cm.) negatives, and 1411/6 and 1411/7 for prints from Contax 24×36 mm. or similar size negatives.

SPECIFICATION

- (I) The housing is of metal, the lamp-house double walled so as to avoid excessive heating.
- (2) The insertion of the film is extremely simple. The top portion of the apparatus swings backwards, and the film is inserted between two glasses.
- (3) A metal print holder is provided at the bottom of the apparatus.
- The lens is the well-known Zeiss Ikon Novar Anastigmat, (4)working at f/6.3.



(5) The illuminant is a special 50-watt lamp, giving a high intensity, but if desired the top portion of the apparatus can be removed so that the instrument can be used for daylight enlarging.

PRICES (including Lamp):

Code No. 1411/1 1411/2 1411/6 1411/7	Size of Negative $1\frac{8}{7} \times 1\frac{1}{4}$ (3 × 4 cm.) $1\frac{8}{7} \times 1\frac{1}{4}$ (3 × 4 cm.) 24 × 36 mm. 24 × 36 mm.	Size of Print $3\frac{1}{2}'' \times 2\frac{1}{2}''$ $5\frac{1}{2}'' \times 3\frac{1}{2}''$ $*3''' \times 2''$ $*3''' \times 2\frac{3}{4}''$	£ s. 1 10 1 12 1 10 1 12	0 6 0	(C)						
Spare Lamp, please state voltage required 2 6											
*Uses $3\frac{1}{2}'' \times 2\frac{1}{2}''$ paper. **Uses 9×12 cm. $(4\frac{3}{4}'' \times 3\frac{1}{2}'')$ paper.											

Showing method of inserting film and examination of picture to be printed.

MIRAX UNIVERSAL ENLARGING ATTACHMENT



(b) Mirax used horizontally



(a) Mirax used vertically on stand and easel

The owner of a good camera with a fine lens often wishes to use it as the optical equipment of an enlarger. The Mirax converts one's own camera into a highly efficient enlarger, and it is within the reach of the modest purse.

The Mirax is made for use in conjunction with cameras 9×12 cm., $4\frac{1}{4}'' \times 3\frac{1}{4}''$, $3\frac{1}{2}'' \times 2\frac{1}{2}''$, $4\frac{1}{4}'' \times 2\frac{1}{2}''$ and $3\frac{1}{4}'' \times 2\frac{1}{4}''$, but any size negatives up to 9×12 cm. $(4\frac{3}{4}'' \times 3\frac{1}{2}'')$ can be used, smaller sizes being suited by means of adapters or paper masks. Roll film cameras must be provided with hinged or removable backs. The illustrations show (a) the Mirax used with our Mirax Stand and Easel and (b) horizontally with a Zeiss Ikon Icarette.

The Mirax has an all-metal body and stand, and special care has been taken to render the construction light-tight.

The illumination is supplied by a special electric bulb. The interior is coated with aluminium enamel, and so designed that the maximum degree of reflection is obtained.

An ingenious clamping device permits cameras up to a thickness of $2\frac{1}{2}$ in. to be used. Self-erecting cameras, as for example, the Zeiss Ikon Ikonta, and any single extension camera can also be used, although the limited extension must necessarily limit the range of enlargement. Apart from the focussing of the camera lens the Mirax can be moved bodily and also slid on its base, thus with cameras possessing a variable bellows extension, a very wide range of magnifications can be obtained. Exposures naturally depend upon the quality of the negative, the magnification, the lens aperture and the rapidity of the bromide paper used, and may vary between 4 seconds to 2 minutes.

PRICES, including Lamp (state voltage when ordering)

Code No. 1459/1	Mirax, for use with roll film or plate cameras up to $4\frac{1}{4}'' \times 3\frac{1}{4}''$	£	s.	d.			
1007	and 9×12 cm	3	3	0 (C)			
1459/4	Mirax, for use with roll film or plate cameras $3\frac{1}{4}'' \times 2\frac{1}{4}''$ or $3\frac{1}{2}'' \times 2\frac{1}{2}''$	3	5	6			
1460/11	Mirax Vertical Wood Stand with Easel, as illustrated	1	17	6			
the second	Spare Lamp, 100-250 volts	0	3	9 (F)			
Note.—1459/4 is similar to 1459/1 but with $3\frac{1}{2}'' \times 2\frac{1}{2}''$ Adapter, which can be purchased separately for 2/6.							

MIRAPHOT ENLARGERS

With Automatic focussing and auxiliary focussing mount to lens.

The Miraphots in the larger sizes, No. 1444, taking up to $4\frac{1}{4}'' \times 3\frac{1}{4}''$ or 9×12 cm. negatives, and No. 1445, taking negatives not larger than $3\frac{1}{2}'' \times 2\frac{1}{2}''$, are condenserless enlargers. In addition to being extremely compact, the Miraphots possess the following advantages :



Automatic Focussing, and auxiliary focussing mount for focussing of transparencies on glass or controlling the degree of sharpness of the enlargement. The addition of the auxiliary focussing mount is strongly recommended.

Simplicity in Operation. A pull on the adjusting lever is all that is required to focus and to control the size of the enlargement.

Adaptable to any house lighting circuit.

The lenses give perfect definition.

Choice of two lenses, Zeiss Ikon Novar f/6.3 and Zeiss Tessar f/4.5.

The special Miraphot Lamp gives powerful illumination, therefore short exposures.

The condenserless system, helped by the special design of the reflector, renders the retouching of negatives almost unnecessary. Slight scratches or blemishes do not appear on the enlargement.

No. 1444



Any negative which will give a good contact print is suitable for use in the Miraphot Enlarger. Very thin negatives should be avoided. Either films or plates are used, the former being carried between two pieces of glass. The focussing is automatic—a not inconsiderable advantage, especially when dense negatives are being enlarged—but, as before mentioned, for artistic effects and for transparencies on glass we specially recommend the auxiliary focussing mount.

For particulars of Enlargers suitable for Contax and miniature negatives see under Ikomat, Magniphot and Baby Miraphot, pages 75, 76 and 95.

No. 1445

MIRAPHOT ENLARGERS

PRICES AND SPECIFICATION

Each Miraphot is sold complete with special Miraphot Lamp, short length of flex with plug for wall socket, and one fit-over stop. No. 1444 also includes one adapter, taking $4\frac{1}{4}'' \times 3\frac{1}{4}''$ negatives.

Miraphot for Negatives not exceeding Linear $3\frac{1}{2}'' \times 2\frac{1}{2}''$ *Magnificatio	n Price	a
Code No. Lens up to	C	-
1445/1 Novar $f/6.3$ without focussing mount $3\frac{1}{2} \times$	8 2	d. 6 (C)
1445/1 Novar $f/6.3$ with focussing mount $3\frac{1}{2} \times$	9 7	6
1445/12 Zeiss Tessar $f/4.5$ without focussing	· ·	v
	10 15	0
mount $3\frac{1}{2} \times$ 1445/12 Zeiss Tessar $f/4.5$ with focussing	10 15	U
	12 0	0
mount \dots \dots $3\frac{1}{2}\times$	12 0	U
Miraphot for Negatives not exceeding		
9×12 cm. and $4\frac{1}{4}'' \times 3\frac{1}{4}''$		
1444/16 Novar $f/6.3$ without focussing mount $3\frac{1}{2}\times$	11 2	6
1444/16 Novar $f/6.3$ with focussing mount $\dots 3\frac{1}{2} \times$	12 15	0
1444/18 Zeiss Tessar $f/4.5$ without focussing		
mount \dots \dots \dots $3\frac{1}{2}\times$	14 15	0
1444/18 Zeiss Tessar $f/4.5$ with focussing mount $3\frac{1}{2} \times$		
Please state voltage when ordering.		•
	1	
* The minimum magnification in both sizes is	1-1/3	
times approximately.		

ACCESSORIES

Code N		£	s.	d.	
725/1	Adapter for $3\frac{1}{2} \times 2\frac{1}{2}^{"}$ from 9×12 cm., for use in 1444	0	1	3	(C)
725/25	Ditto, $2\frac{5}{16}$ " $\times 1\frac{3}{4}$ " from 9×12 cm., for use	•			(\mathbf{O})
	in 1444 Ditto, $2\frac{5}{16}'' \times 1\frac{3}{4}''$ from $3\frac{1}{2}'' \times 2\frac{1}{2}''$, for use	0	1	3	
725/26	Ditto, $2\frac{5}{16}'' \times 1\frac{3}{4}''$ from $3\frac{1}{2}'' \times 2\frac{1}{2}''$, for use	•		-	
10	in 1445	0	1	3	
15535/6	Extension Flex $6\frac{1}{2}$ ft. long, with plug and				
	adapters to fit into an ordinary electric lamp	0	-		
	fitting	U	5	6	
1444/20	Miraphot Gas-filled 75-watt Lamp, any	0	2	0	$\langle T \rangle$
	usual voltage between 100-250	U	3	У	(F)
	Please state voltage when ordering.				

Zeiss Ikon Folding Masks

We have designed for use in connection with the Zeiss Ikon Miraphot, or indeed, any vertical enlarger, Folding Masks or Frames. These Frames are laid on the baseboard, and the bromide paper inserted into the aperture provided. The top hinged portion is then folded over on to the bromide paper and the exposure made. By means of these Frames the necessity of pinning the paper to the baseboard is avoided, and all enlargements appear with a neat white margin.

Code No	o. For	s.	d.	Code No	. For		s.	d.
2674/3	$3\frac{1}{2} \times 3\frac{1}{2}$ in.	3	9	2674/26	10.5×	14.8		
2674/15	$4\frac{1}{4} \times 2\frac{1}{2}$,	4	6	cm. †			6	0 (C)
2674/7	9×12 cm.	4	6	2674/27	$6\frac{1}{2} \times 4\frac{3}{4}$	in.	6	6
2674/31	9 × 12 cm.*	4	6	2674/11	7×5	>>	6	3
2674/5	$4\frac{1}{4} \times 3\frac{1}{4}$ in.	4	6	2674/20	$9\frac{1}{2} \times 7$	22	7	6
2674/8	$5\frac{1}{2} \times 3\frac{1}{2}$,,	4	9	2674/28	$4\frac{3}{4} \times 4\frac{3}{4}$.,	6	0
2674/9	6 × 4 ,,			2674/29			8	3
	$(10 \times 15 \text{ cm})$) 6	0	2674/21	$12 \times 9\frac{1}{2}$	>>	12	0
* Spe	cial for Cont	ax	size	with prot	oortions	2:	3.	
-	ernational po			<u> </u>) (777) (873) (777)	5	
			1. Martin (1997)	1997 - TAL GATE (1997) (1997)				



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BABY MIRAPHOT ENLARGER

For enlarging $I_8^{\#} \times I_4^{\#}$ (3 × 4 cm.) negatives taken with the Baby Ikonta, Kolibri and cameras taking similar size pictures. Also suitable for Contax, Contaflex and Super Nettel 24×36 mm. negatives.

This Miraphot possesses the usual noteworthy Miraphot features—vertical construction and automatic focussing. The Baby model is fitted with a condenser and a separate lens focussing adjustment, for use in obtaining special pictorial effects, and for accurate focussing when making lantern slides or glass transparencies. The film feeding arrangement is ingenious—the negatives need not be cut, thus facilitating the insertion of the negative into the Enlarger. Enlargements between about $3\frac{1}{4}'' \times 2\frac{1}{4}''$ and $12'' \times 9''$ can be made without more trouble than contact prints. The Baby Miraphot can also be used for making enlargements from Contax negatives, the maximum magnification being about 8 times linear.



No. 1440/1

PRICES (Please state voltage when ordering)

Code No.		£	s.	d.
1440/1	Baby Miraphot with Zeiss Ikon Anastigmat, opal gas-filled			
	Lamp and short flex, with plug for wall socket	11	2	6 (C)
1557/50	Baby Miraphot Gas-filled Lamp	0	3	9 (F)
15535/6	$6\frac{1}{2}$ ft. Extension Flex, with plug and adapters for ordinary			
	electric lamp holder	0	5	6 (C)
For partici	ulars of folding frames for holding paper, see page 94.			

THE ZEISS HEROTAR

A polarizing filter for suppressing disturbing reflections in photographs

In the Zeiss Herotar, constructed according to Professor E. Bernauer's method, there is a pale green layer of Herapathite sandwiched between two perfectly plane thin glass plates, which do not detrimentally affect the definition of the lens. The cell is the usual type that slips over the lens. As a result of its polarising action and colour, about 2-3 times the normal exposure is required. The Herotar is simple to use—the subject it is desired to photograph is viewed visually through the Herotar. The Herotar is rotated until the reflections are extinguished as far as possible and then the filter is put over the lens in that position. It is not pretended that reflections are entirely extinguished under all conditions—but the best results are obtained at angles with the surface between 32° and 37° according to the class of subject being taken. See page 65 for illustrations of result obtained.

PRICES OF HEROTAR POLARIZING FILTERS in slip-on cells

Diam	leter						-	1			
ins.	mm.								£,	s.	d.
$I\frac{1}{8}$	28.5			• •			 		 2	15	0
I 1/4	32			• •			 		 3	5	0
$I \frac{7}{16}$	37			• •	• •		 		 3	15	0
$I\frac{5}{8}$	42						 		 4	7	0
2	51			• •			 		 5	13	0
55 mm. a	and 74.5 m	m. diar	neters i	in prep	aration	•					

ZEISS DISTAR and PROXAR LENSES

The Zeiss Distar and Proxar Lenses are high grade supplementary lenses to be used in front of the usual lens. The Distar, since it increases the focal length, is particularly useful for photographing distant objects which would otherwise be depicted on too small a scale in the picture.



The Proxar has the effect of reducing the focal length of the lens and is therefore invaluable for photographing confined interiors or other subjects where with the normal lens it is impossible to include the desired angle in the picture. The illustrations on this page will explain clearly the uses of the Distars and Proxars. All the three pictures, which are of Castleacre Priory, Norfolk, were taken from exactly the same standpoint, without moving the camera in any way. A double extension Zeiss Ikon camera was used fitted with a Zeiss Tessar f/4.5 of $5\frac{3}{8}''$ focal length.

TESSAR F.4.5.5% FOCUS & PROXAR



TESSAR F.4.5.5% FOCUS ALONE

Picture No. 1

This was taken with the Proxar 2×42 added, and the focal length of the combination thus made was $4\frac{3}{8}$ ".

Picture No. 2

was taken with the Tessar alone. This shows the view as taken with the normal focal length.



Picture No. 3

This was taken with the Distar 3.5×42 added, and the resulting focal length of the combination was approximately $9\frac{7}{8}''$.

Each Zeiss Distar and Proxar Lens supplied in a neat Bakelite case.

ZEISS DISTAR and PROXAR LENSES

The Distar, as will be seen from comparing the illustrations on previous page, depicts images on a larger scale than when the Tessars are used alone. The Distar is made in several different strengths and diameters, and the magnifications vary from 1.4 up to almost double the size given by the usual lens when used alone.

The Proxar reduces the focal length, thus including more in the picture. The Proxar is invaluable for use in interiors, at close quarters, etc.

Types of Cameras on which Distar or Proxar Lenses can be used. Satisfactory results can be obtained only with cameras equipped with ground glass focussing screens, because the focus of the lens is altered when a Distar or Proxar is added, consequently the ordinary scale on a roll film camera is rendered useless and the image must be checked on the focussing screen. In some special cases, as for example with Contax and certain other cameras, the Proxar is used as a high-class supplementary lens for portraits and "close-ups". Particulars are given under the respective cameras.

PRICES OF ZEISS DISTAR LENSES

Tessar or	ended for other lens al length	Diame Lens		Code No. for ordering	of com	length bination + Distar)	P	rice	e C)
Ins.	cms.	Ins.	mms.	Distar	Ins.	cms.	f.	s.`	d.
4 ¹ / ₈	10.5	Ił	32	3.5×32	61	16	ĩ	0	0
4 ¹ / ₈	10.5	$I \frac{7}{16}$	37	3.5×37	61	16	1	0	0
$4\frac{3}{4}$	12	I 1/4	32	3.5×32	$7\overline{4}$	18.5	1	0	0
$5\frac{3}{8}$	13.5	I <u>5</u>	42	2.5×42	81	20.5	1	0	0
$5\frac{3}{8}$	13.5	I <u>5</u>	42	3×42	878	22.5	1	0	0
$5\frac{3}{8}$	13.5	I 5/8	42	3.5×42	$9\frac{7}{8}$	25	1	0	0
$5\frac{3}{8}$	13.5	2	51	3×51	878	22.5	1	4	0
6	15	I <u>5</u>	42	2.5×42	94	23.5	1	0	0
6	15	I 5	42	3×42	IOI	26	1	0	0
6	15	I ⁸ / ₈	42	3.5×42	$II\frac{1}{2}$		1	0	0
$6\frac{1}{2}$	15 16.5	2	51	2.5×51	II	28	1	4	0
$6\frac{1}{2}$	16.5	2			II 12 8 II	32	1	4	0
7 ¹ / ₈	18	2	51 51	3×51 2×51	II	28	1	4	0
$7\frac{1}{8}$	16.5 18 18 21 21	2	51 57	2.5 imes 51	$12\frac{5}{8}$ $11\frac{3}{4}$	32	1	4	0
$8\frac{1}{4}$	21	$2\frac{1}{4}$	57	1.5×57	II $\frac{3}{4}$	30	2	1	0
$7\frac{1}{8}$ $8\frac{1}{4}$ $8\frac{1}{4}$	21	$2\frac{1}{4}$	57	2×57	13 <u>8</u>	29 28 32 28 32 30 34	2	1	0

PRICES OF ZEISS PROXAR LENSES

	ended for		6	O I I I		length			
lessar or	other lens	Diame	ter of	Code No.	of comb	oination	I	rice	e
of foca	l length	Lens	Cell	for ordering	(Tessar -	+ Proxar)		(C)
Ins.	cms.	Ins.	mm.	Proxar	Ins.	cms.	£	s.	d.
4 1/8	10.5	II	32	2×32	31/2	9	1	0	0
4 \$	10.5	I 7 16	37	2×37	31/2	9	1	0	0
$4\frac{3}{4}$	12	I 1/4	32	2×37	$3\frac{3}{4}$	9.5	1	0	0
$5\frac{3}{8}$	13.5	IS	42	2×42	$4\frac{3}{8}$	II	1	0	0
6	15	I 8	42	2×42	$4\frac{3}{4}$	12	1	0	0
$6\frac{1}{2}$	16.5	2	51	1.5×51	51	14	1	4	0
78	18	2	51	1.5×51	$5\frac{3}{4}$	14.5	1	4	0
81	21	21	57	$I \times 57$	71	18	2	1	0

A special pamphlet on Zeiss Distars and Proxars will be sent free on application.

ZEISS IKON FILTERS

Photographic emulsions are sensitive chiefly to blue and violet rays of light. Certain dyes may be added, as is the case with orthochromatic films, to increase the sensitiveness to green and yellow, but the effect of the blue rays is still predominant. Hence, for the purpose of rendering various colours in tones corresponding with the effect seen by the eye, the blue rays, when using orthochromatic films, must be subdued or partly cut out. This is done with a *yellow filter*.

Panchromatic films, while possessing excessive sensitiveness to blue, are also disproportionately sensitive to red. A green filter is necessary to remedy this inequality. Photographic emulsions which have been sensitised specially to the red and invisible infra-red rays are also sensitive to blue, green and yellow to some extent. Hence, for the purpose of allowing only the red rays to act, the lens must be fitted with a red filter which absorbs all visible light except red. For exposures for infrared photography a black red filter is employed.

Optically and spectroscopically, the quality of the Zeiss Ikon Filters is of the highest grade and ensures critically sharp definition in the negatives ; although the multiplying factors are low, the filter effect is the maximum. The technical and scientific experience of years, the use of the most modern machines and the most rigid inspection tests are applied to the production of filters of the perfection needed for the modern small camera. The purposes for which the filters are used and the approximate factors by which exposures require to be multiplied will be seen from the tables on the next page.

Since the multiplying factor is largely dependent on the spectral composition of the lighting and the colour-sensitiveness of the film or plate, the factor numbers must be taken as average values.

They apply to exposures at about midday in summer on good orthochromatic emulsions—or panchromatic, in the case of the green filters.

With sun low in sky, the factors to be used are about half those given in the table. With deep blue, cloudless sky, the factor should be doubled.

The multiplying factors of the red and dark filters indicate the number of times of exposure when using infra-red film and a red or dark filter, that would be required when using orthochromatic film of 23° Sch. With these filters, the factor varies very greatly with the prevailing atmospheric conditions; a very much higher number must be used if the sun is covered by light clouds.

All Zeiss Ikon filters are made from glass coloured in the mass.



Type VG. square mount

Zeiss Ikon Graduated Type VG Sky Filter

In this type of filter the tint is dark at the top, gradually diminishing until just beyond the centre is clear glass. The function of this filter is to retain the clouds in the negative. No increase of the normal correct exposure is required. Supplied either in square mounts, as illustrated, with spring fitting, or in usual type circular fit-over mount.

Square	To fit	P	rice	wit	h	Circu	lar			Pric	e in	ι
pattern	lenses up					patter				ircular	mo	unt
Size of Filt	er to Dia.	Code No.	£ s.	d.	d	iamet	er	Code No.		£ s.	d.	
$I_{16}^{9} \times 2''$	I1/"	. 1308	0 15	0		$I_{16}^{1''}$		1314/3		0 15	6	(C)
$1\frac{3}{2}'' \times 2\frac{3}{8}''$. 1308/1						1314/4	••	0 18	0	
$2\frac{3}{8}'' \times 3\frac{1}{8}''$	2″.	. 1308/2	1 7					1314/5		1 1	0	
31 × 41	31" .	. 1308/3	2 8	0								

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ZEISS IKON FILTERS

The types of filters mentioned in the following tables are supplied in circular metal mounts to fit over lens cells. Only the sizes and types listed are available.

Type Go	Colour of Filter Nearly colourless yellow filter, with strong ultra-violet absorption.	Suitable for Mountain photography	Film or Plate Recommended Orthochrom and Panchrom	Exposure Factor I
Gı	Light yellow filter	Sports work and instanta- neous portraits, land- scapes, with sun low in sky	Orthochrom	2
G2	Medium yellow filter	Landscapes, Snowscapes	Orthochrom	3

G3	Deep yellow filter	Landscapes with distance, snow and against the light subjects, still life, copies of paintings, coloured dresses.	Orthochrom	4
G4	Orange filter	Distant landscapes with- out foreground, aerial photographs, reproduc- tions and other photo- graphs in which the con- trasts should be empha- sised	Orthochrom	5
GR5	Yellow green filter	Landscapes with fore- ground, and snow scenes	Orthochrom and Panchrom	2-3
GR10	Green filter	Landscapes with dist- ance, snow pictures and photographs against the light, still life, portraits and reproductions	Panchrom	3-4
Rio	Light red filter	Distance photographs, daylight exposures giving night effect	Panchrom Agfa R-film	6-8 6-10
R15	Medium red filter	Distance work	Ilford Infra-Red plate or film Agfa R-film	8-10 20-25
R 20	Dark red filter	Infra-red photographs	Ilford Infra-Red plate or film Agfa Rapid Plate 810 and 855 R-film	8-10 20-25 20-25
R30	Black-red filter	Infra-red photography	Ilford Infra-Red plate or film Agfa Rapid Plate 810 and 855	150-200 200-500
B5	Blue	Exposures in artificial light	Panchrom	$I\frac{1}{2}$ -2

Zeiss Ikon Filter Prices including Bakelite Cases

To Lens dia	cell	Vie	tra- olet e Go Price	Yellow Types: G.1 Light G.2 Medium G.3 Dark Code Price	•	Yello Gre Type Code	en	Type	reen e GR10 Price	Blu Type Code		
ins.	mm.	No.	s. d.	No. s. d 1305 8)	No.	s. d.	No.	s. d.	No.	s. d.	
4 13	19.2 21			-505	0							
$ \frac{3}{4} \frac{13}{16} \frac{15}{16} 16 $	24			-) -) /	6							
$I \frac{10}{16}$	27	972/I	11 6	-3-31-4	6	972/3	12 6	972/4	13 6	972/10	15 0	
II	28.5				6	_						
IŦ	29				6							
$I\frac{3}{16}$	30			1305/4 10	0			() <u></u> ()				
$I\frac{1}{4}$	32	973/I	12 6	1305/5 10 0	0	973/3	14 0	973/4	15 0	973/10	17 0	
$\frac{1}{16}$ $\frac{7}{16}$ $\frac{5}{8}$	37	974/I	14 0	1305/6 12 (0	974/3	15 6*	974/4	16 6*	974/10	19 0	
$I\frac{5}{8}$	42			1305/7 12	6	976/3	17 6	976/4	18 6	976/10		
$2 \\ 2\frac{1}{4}$	51	967/I	23 6	1305/8 15	6	967/3	29 0	967/4	31 6	967/10	30 0	
$2\frac{1}{4}$	57			1305/9 18	6							
-				our sizes only:								72
$I_{4}^{1''}$ (32 mm	n.) . 15/	$-$ I $\frac{7}{16}$	"(37 mm.). 1	7/-	$I\frac{5}{8}''$	(42 mm.	.) . 19/	6 2" ((51 mm.)) . $31/($	6

*For Super Ikonta 2¼"×2¼" GR5 No. 974/13 and GR 10 No. 974/14 should be ordered, as these will allow closing of camera even when filter is in position.

	fit			t Red			ium Red		Dark Red Type R20			Black Red (C Type R30		
	s cell		1 yp	e Rio		Type	RIS		Iype	e K20				
dia	m.		Code	Pri	ce	Code	Pri	ce	Code	Pr	ice	Code	Pri	ce
ins.	mm.		No.	S.	d.	No.	s.	d.	No.	s.	d.	No.	s.	d.
$I \frac{1}{16}$	27	• •	972/5	15	0		-	-		1.	-			-
$I\frac{1}{4}$	32		973/5	16	0			-			_			-
$I\frac{7}{16}$	37	• •	974/5	18	0			-			-			-
I <u>5</u>	42	•••	976/5	20	0	976/6	20	0	976/7	20	0	976/8	22	0
2	51	••	967/5	33	6	967/6	33	6	967/7	33	6	967/8	38	6
0			-		-			-						

Super Nettel, Nettax, Contax and Contaflex Filters, see pages 64 and 65.



Taken with G2 Filter

100 Certain filters are made with "screw in" cells—see page 65 for particulars

ZEISS IKON NITRAPHOT REFLECTOR

The Nitraphot Reflector provides amateurs with ideal artificial illumination. Over flashlight, and arc lamps, both of which have been rendered almost obsolete, the Nitraphot possesses many advantages. With the Nitraphot the amateur can arrange and focus his subject in full illumination. This is impossible when using flashlight.

With the Nitraphot you can easily take instantaneous and cinematograph pictures in your own home. With a rapid



On base for use on table

film and a lens working at f/4.5, one reflector at $6\frac{1}{2}$ feet distance will require an exposure of 1/5th second. Two reflectors are sufficient when working at a distance of about 10 feet for amateur cine photography when using, for example, the Zeiss Ikon Movikon with Zeiss Sonnar f/1.4, assuming a picture frequency of 16 per second. Users of the Zeiss Ikon Nitraphot therefore know nothing of the restrictions imposed by daylight conditions or contingencies inseparable from the usual artificial sources of light. The apparatus requires no attention. It connects to any ordinary electric supply system, and is switched on in exactly the same way as the usual house lamp.

The table gives the approximate exposure in seconds with rapid panchromatic emulsions when using one Nitraphot Reflector. The use of two Reflectors will cut down the exposure to one-half.

Distance of	-		_		- 1972A - 194				
from Subjec	ct		L	lens S	top				
f/1.5	2.8 3.	5 4.5	5.6	6.3	8	II	16	22	
3 feet $\frac{1}{75}$	$\frac{1}{20}$ $\frac{1}{1}$	5 10	1	$\frac{1}{3}$	12	I	2	4	
$6\frac{1}{2}, \frac{1}{35}$	10	$\frac{1}{7}$ $\frac{1}{5}$	$\frac{1}{2}$	I	I 1/2	2	4	8	
$10, \frac{1}{15}$		$\frac{1}{3}$ $\frac{1}{2}$	I	$I\frac{1}{2}$	3	5	10	20	× 1
13,, ¹ / ₅	$\frac{3}{5}$ I	1]	2	3	5	IO	20	40	
$16\frac{1}{2}, \frac{1}{3}$	II	$\frac{1}{2}$ 2	3	5	8	15	30	60	
PRICES	5 :								
						0			-
Nitraphot I	Reflector	with 6	1/2 ft. o	f Flex	and	£s	s. d.		
								(C)	
Nitraphot I Plug, no la Cloth Diffu	mp	••	• •		••	1	10	(C)	
Plug, no la	mp ser for h	 anging	 in fro	 nt of	 lamp	1	10	(C)	
Plug, no la Cloth Diffu	mp ser for h Reflector	 anging with 6½	in fro ft. fle	nt of ex and	lamp plug	1	10	(C)	
Plug, no las Cloth Diffu Nitraphot F (no lamp),	mp ser for h Reflector but inclu	 anging with 6身 uding V	in fro ft. fle Vood	nt of ex and Stand	lamp plug No.	1 0	10 29	(C)	
Plug, no las Cloth Diffu Nitraphot F	mp ser for h Reflector but inclu preaders	anging with 6½ iding V	in fro ft. fle Vood	nt of ex and Stand	lamp plug No.	1 0	10 29 90		



On tripod stand

ZEISS IKON TRIPOD STANDS (C)



Metal Stands

Like all Zeiss Ikon products, these Stands are beautifully made and perfectly finished. They are drawn from the best quality seamless brass tube and can be depended upon to give treble the service of tripods made from inferior quality materials.

Circular Top Pattern

14″ 12″

The outside tubes of these Stands are black enamelled. The screw is the standard $\frac{1}{4}$ ["] Whitworth thread, reversible to the Continental thread ($\frac{3}{8}$ ["] Whitworth) if desired.

	Length	Length	Code		
Draw	Closed	Opened	No.	s.	d.
3	 17"	44″	1612	10	9
4	 16″	50″	1613	13	6

50″

50"

15 0

17

1615

1620

No. 1613



Special Compact Metal Stand

No. 1627. This is a new 8-draw Stand measuring when extended 44 ins., closed $8\frac{1}{2}$ ins. It can be termed without exaggeration a pocket stand.. $f_{,}$ s. d. Price, in leather case 1 10 0

Light Metal Flat Stand

Similar in appearance to No. 1627 but still more compact and lighter in weight. It is an 8-draw stand measuring when extended 45 ins. and when closed only $8\frac{1}{4}$ ins. Weight, without case 9 ozs.

Code No. 1626 Price, complete in leather case \dots 115 0

Table and Chain Tripod

Intended for miniature cameras—Contax, Super Nettel, etc. The metal tube contains at one end a short tripod and at the other end a chain which, in use, is placed under the foot, the length of chain being adjusted so that it is taut at eye or waist level as required. Thus the camera can be held steady for 1/5 or 1/10th second exposure. The Stand is for use on a table or for taking small children, dogs, etc. on the ground. Length extended $10\frac{1}{4}$ ins.; closed $6\frac{1}{4}$ ins. Weight, 6 ozs.



No. 893

Code No. 1624/10 Price 15/-

Safety Window Cover for Cameras (C)

This simple device renders any camera safe for panchromatic film. It consists of a spring cover surrounded by leather covering which matches that of most cameras. The back is "tacky" and will adhere to the camera back without the use of glue.

Code No. 893 Price 2/6

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Zeiss Ikon Wood Tripods (C)

No. 1635/2. A strong, light, two-fold Stand at a very cheap price. Eminently suitable for all light cameras. Length closed 26''; extended 45'' 5/6

Zeiss Ikon Tripod Stand Heads (C) Zeiss Ikon Ball and Socket Tripod Heads



Made from brass, and are stronger than the usual type of ball and socket joint. They are really firm and enable the camera to be fixed in any desired position.

Code No.	s.	d
1628/1 For hand cameras up to 10×15 cm. (6" $\times 4$		3
1628/2 heavy cameras up to 81" × 61"		6

Combined Tilting and Rotating Head No. 1630/2

Is designed for screwing on to a tripod; see illustration. It is extremely useful, as by its aid a camera can be turned in any direction without removing it from the stand.

No.s. d.1630/2Suitable for all cameras up to ½-plate size...171630/3Very strong, for cameras up to 1/1-plate...360

Zeiss Ikon Distance Meter No. 1344/1 (C)

In photography one of the questions which give the inexpert the greatest trouble is the accurate judging of distance. This difficulty is solved by the Zeiss Ikon Distance Meter. On looking through the eyepiece the subject is seen divided in the centre. The two portions can be brought into alignment by turning the dial, and the point where the dial stops shows the correct distance. Distances are engraved between 4 and 100 feet. This Distance Meter is not constructed according to the special Zeiss Ikon rotating wedge system.



No. 1628/1



No. 1630/2



Price, in leather case ...

Zeiss Ikon Focussing Magnifier (C)

A well-made Magnifier for focussing the image on the ground glass screen. Spiral focussing mount. The magnification is $5 \times .$ Code No. 1290. Price 14/6 No. 1344/1

s. d.

37 6



No. 1290



No. 430/2



Zeiss Ikon Direct Vision Finders

No. 430/2. A Frame Finder similar to that fitted to the Nettar cameras. The front opening measures $I_{16}^{\frac{5}{16}''} \times \frac{7}{8''}$. Suitable for use with $3\frac{1}{4}'' \times 2\frac{1}{4}''$ or $4\frac{1}{4}'' \times 3\frac{1}{4}''$ cameras. Price, finished in nickel, Code No. 430/2 ... 5/6 (C) No. 449. The Baby Ikonta No. 520/18 and the Ikonta No. 520 are fitted with direct vision finders only. The brilliant Finder No. 449 has been designed specially to slide on to the direct finders of these cameras—thus providing a finder to take pictures from waist level.

7/6 No. 449 for which finder is required. For Contax Finders see pages 66 and 67.

Albada Direct Vision Finder

This Finder is an optical direct vision finder giving an erect image unreversed and in natural size or slight reduction. The front glass is silvered on the inside. By reflection of white boundary lines the exact amount of the subject being taken is seen, so that, when looking through the finder, the user appears to see the white frame suspended in space, thus indicating the subject he will get on the picture. The advantages of this finder are: The field of view is large and clear; the image is erect and unreversed. The subject is viewed in its natural size, thus allowing of excellent judgment of distance.







The Albada is specially suitable for sports photography.

	r cameras $3\frac{1}{4}'' \times 2\frac{1}{4}''$.	 £1	5	0 ((C)
For cam	eras giving two picture sizes				
433/20	$3\frac{1}{4}'' \times 2\frac{1}{4}''$ and $2\frac{1}{4}'' \times 1\frac{3}{4}''$	 1	5	0	
433/22	$4\frac{1}{4}'' \times 2\frac{1}{2}''$ and $2\frac{1}{2}'' \times 2\frac{1}{8}''$.	 	5		
433/16	for Super Ikonta $2\frac{1}{4}'' \times 2\frac{1}{4}''$	 1	10	0	

Note. No. 433/16 is a special rigid pattern—others are of the collapsible type as illustrated.

Zeiss Ikon Autoknips

Delayed Action Automatic Shutter Release

These ingenious little instruments can be used in conjunction with most shutters capable of being discharged with a wire release. By its use the photographer himself is able to take up his position in the group or scene, the discharging of the shutter being automatically effected about 15 seconds afterwards by the Autoknips. In addition to the speeds within the range of the shutter the Autoknips gives automatic long time exposures from I to 15 seconds.

No. 1394/3



Code No. 1394/3. Price, with instructions \dots 12/- (C) Autoknips for Box Tengors giving instantaneous exposures 5/only

Zeiss Ikon Developing Dishes

For those amateurs who do their own developing the Zeiss Ikon enamelled dishes for developing complete lengths of film are ideal. They are compact and are much more economical of developer than developing tanks. Prices include two clips for securing film in dish. (C)

No. 2221	for	developing	$2rac{1}{2}'' imes Irac{5}{8}''$	vest-	pocket	t roll	S	d.
	film	n, 8 exposure	es		••		5	6
		or developin				exp.	7	9

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ZEISS IKON ELECTRIC DARK ROOM LAMPS

Large model Universal Dark Room Lamp

No. 1839/0. This Lamp has been very carefully designed and is large enough for professional as well as amateur purposes. In front there is a matt glass which can be withdrawn when desired. Inside there are four glassescolourless, amber yellow, bright red and ruby red, operated by the outside handle. If desired a green (Pan.) filter can be supplied in place of one of the other colours at an extra cost of 2/6. The light can be directed as desired—even to the ceiling when a diffused light is obtained. £ s. d. Size of glass $8'' \times 3\frac{1}{2}''$ 4 2 6 (E) Without Lamp Electric Lamps, 15 watts, for 110 or 220 .. each **0 2** (F) volts 6





No. 1839/5



No. 1839/5. This Lamp is a smaller edition of No. 1839/0 and forms a very convenient form of dark room lamp for attaching to a wall or bench. It contains a ruby red glass for plates and films, an amber yellow glass for slow bromide papers, also a matt white glass for gaslight papers, operated by rotating a handle. The Lamp can also be tilted to direct the rays in the desired position and clamped by means of the clamping screw. Size of glass, $4'' \times 2\frac{1}{4}''$. *f*, s. d. Without Lamp **1** 9 0 (C) Pan. green glass instead of matt glass, extra 0 2 6 Electric Lamps, 15 watts, for 110 or 220 volts ... each 0 2 6 (F)

Safety Covers for Ordinary Electric Lamps

No. 1807. A glass cover for fixing over an ordinary electric house lamp. Brass top cap.

Price, either ruby red for plates and films and s. d. bromide paper, or amber yellow for fast gaslight paper ... each **3 6** (C)

No. 1806. Converts an ordinary electric lamp into a satisfactory dark room lamp. The body is made of metal, enamelled, the top of soft, light-proof material. The glass at the bottom gives suitable illumination for dark room work. Extremely cheap and efficient. s. d.

IOOIII WOIK.	Extremely cheap and enterent.	0.	u.	
	With Ruby Glass	2	3	(C)
,, 1806/2.	With Green Panchromatic Safe-			
	light	2	6	

Lamps for 1806 and 1807 should not exceed 20 watts.

Zeiss Ikon Pocket Dark Room Lamp

This takes an ordinary flashlamp battery, and is especially useful in those cases where electric current is not available. Admirable for tourists.

No. 1844/6. With rotating disc giving White, Yellow, Dark Ruby and Panchromatic Green 6 0 (C)

Note.—Zeiss Ikon Dark Room Lamp Glasses are spectroscopically tested. Higher wattage lamps than those recommended should not be used.

No. 1844/6





No. 725/4

Zeiss Ikon Telescopic Finder Magnifiers

This very useful accessory is made in three sizes. It consists of a metal hood-shaped adapter, suitably sprung at one end to fit over the brilliant finders in Zeiss Ikon cameras-the other end taking a sliding magnifier.

NO.	11221321 1025	62.0V NS									S	d		
1351	To fit	finders	measuring	50"	×	5"					4	0	(\mathbf{C})	
1352	22		.,	23"		23"				•••	Ā	õ	(\mathbf{C})	
1353	22		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	3'2 T"	×	32 T″			•••	•••	7	0		
		33	33	÷.	~			•••	•••	• • •	2	U		
Ine	above	measu	urements	in	di	cate	the	la	rgest	finders	th	e 1	res-	

pective sizes will fit over. By means of the spring fittings they can be made to fit slightly smaller dimensions. State size of finder when ordering.

Zeiss Ikon Metal Reducing Adapters

The plate is first placed in the Adapter, then the plate, with the Adapter, inserted into the slide. These Adapters are very easy to load and there is no risk of the plate falling out. No. 1

					S.	a.
725/1	From 9×12 cm. to $3\frac{1}{2}'' \times 2\frac{1}{2}''$	 			1	3 (C)
725/4	$,, 9 \times 12$ cm. to $4\frac{1}{4}'' \times 3\frac{1}{4}''$				1	3
725/19		•••	•••	• • •	1	5
1-51-9	$,, 10 \times 15 \text{ cm. to } 5\frac{1}{2}'' \times 3\frac{1}{2}''$	 			1	0

Metal Reducing Adapters are also supplied for film pack adapters so that smaller film packs can be used in the large adapters.

No.

s.d. 1 3 (C) 725/30 From 9×12 cm. to $4\frac{1}{4}^{"} \times 3\frac{1}{4}^{"} \dots \dots \dots \dots$

Wire or Cable Releases

No.	100.000							s.	d.	
1312/22	3″ long	•••	•••		•••			1	3	(C)
1312/21	5″ ,,	•••						1	3	
1312/5	10″ ,,		•••		•••		•••	1	8	
1312/24	Special relea	use for u	ise w	ith shu	tters p	ossessi	ng B			
	movement o	nly—ena	bles l	ong tin	ne exp	osure t	o be			
	given				•••		•••	3	0	

Long Wire Releases

For Lengthening the Usual Releases

The ordinary camera release is placed in the fork of the lengthening release and then the shutter is released by the plunger of the lengthening release.

	-	<u> </u>					
No.		1390/1	1390/2	1390/3	1390/4	1390/5	
Length		10 ft.	15 ft.	20 ft.	24 ft.	26 ft.	
Price		9/-	10/-	11 / 3	14/-	15/3	(C)

Stereo Transposing Frames

With these Transposing Frames either transparencies or prints can be made from stereoscopic negatives without the necessity of cutting the negative or the positive. The frame itself is made of good quality wood polished outside, and inside lacquered black. The Frames are made in the following sizes : No. s. d. Plate size 45×107 mm., distance between centres 2653/5







No. 2653/5



No. 628/6

63 mm. **0** (C) Plate size 6×13 cm., distance between centres 65 mm. 2653/6 0

2653/2 Plate size 10 × 15 cm., distance between centres 75mm. 12 Zeiss Ikon Mahogany Box Form Stereoscope for Viewing Stereo Transparencies

No. 628/6. A very superior instrument, made from polished mahogany fitted with high power, good quality lenses and the focussing controlled by rack and pinion. It has a hinged lid at the top, fitted inside with a mirror, so that paper pictures can also be viewed as well as transparencies 45×107 mm. Price ... f_{3} **12 6** (C) No. 628/8. This model is designed to take 6×13 cm. $(5\frac{1}{8}'' \times 2\frac{3}{8}'')$ size transparencies or paper pictures. It is similar,

except in respect of size, to No. 628/6. Price $f_{1}4$ 7 6 (C)

HELIOS

The Zeiss Ikon Photo-Electric Exposure Meter. Extremely compact, light in weight, simple in manipulation.



The Helios is the world's smallest and neatest photo-electric exposure meter. Its principal advantage, however, is not so much its vest-pocket size $(2\frac{3}{4}'' \times 1\frac{1}{8}'' \times 1'')$ and light weight (5 ozs. with leather case) as the ease with which it can be used. One sets a scale to the speed of the film material used and looks through the instrument towards the object to be photographed. When the pointer has been brought opposite an index seen in the eyepiece, the exposure time for all diaphragm stops at any film or plate speed can be read off at a glance. The highly sensitive Helios gives accurate measurements also when lighting conditions are quite unfavourable, the only "complication" then being the necessity to multiply the exposure time shown on the scale by 2, 5, 10 or 20, as indicated on an engraved scale attached to the instrument. Notwithstanding its extreme simplicity of manipulation, the Helios can be depended upon to work with precision and accuracy. The Helios is suitable for both daylight and artificial light and for both still and cine cameras.

Code No.

1325

$$f_{\rm L}$$
 s. d. Helios in leather case (Film speeds indicated in DIN and Scheiner

- 4 0 0 (C 0 4 0 degrees) Ever-Ready Pattern Case in place of usual pattern .. extra
- Helios as above but fitted with special foot for attaching to Super 1325/3 4 10 0 Nettel, Nettax, Contax and Super Ikonta No. 530/16, in case ...

HELICON

Zeiss Ikon Rotating Wedge Distance Meter and Helios Photo-electric Exposure Meter combined in one instrument.





Helicon complete in soft leather purse case with "Zipp" fastener 1326

ZEISS IKON FILM



Zeiss Ikon Film, now made in three grades—Standard Speed, Orthochrom and Panchrom —is as good as any sensitive negative material can be. Its properties may be summed up as follows :

Sensitivity - - The rapidity of Zeiss Ikon Film is as high as is compatible with fineness of grain.

Anti-Halo	-	-	Zeiss Ikon Film will take pictures against the light without
			halation. It contains a special dye which is dissolved out
			in the developer and is a most effectual preventitive of halation.

- Fine Grain Considering the speed of Zeiss Ikon Film there is no finer grain film upon the market. Specially suitable for large enlargements from miniature negatives.
- Latitude in Exposure and Development. Considerable errors in exposure, even up to 5 times the normal, will still produce good negatives.
- Cleanness in Working. Negatives taken on Zeiss Ikon Film are free from blemishes, and as the film has a protective coating over the sensitive emulsion, negatives are also free from so-called telegraph wire markings.
- Keeping Qualities Zeiss Ikon Film will keep under unfavourable climatic conditions, even in the tropics, if properly stored.

Uniformity - - Zeiss Ikon Film is not good sometimes, sometimes indifferent it is uniformly good every time and can be relied upon always.

Both Zeiss Ikon Standard Speed and the Zeiss Ikon Orthochrom are especially sensitive to yellows and greens, and light yellow filters can be used with only double the normal exposure. Zeiss Ikon Panchrom is sensitive to red and orange as well as to yellow and green. Used in conjunction with the Zeiss Ikon yellow-green or green filters Zeiss Ikon Panchrom gives perfect monochrome rendering of colour.

ZEISS IKON FILM. Roll films to fit cameras of all makes (D)

					()
			Standard Speed		
	Pictu	re Size		Orthochrom	Panchrom
Code No.	ins.	cm. $\frac{13}{10}$	° DIN (23° Sch.)	$(26^{\circ} \text{ to } 28^{\circ} \text{ Sch.})$	$\frac{17^{\circ}}{10}$ DIN (27° Sch.)
			s. d.	s. d.	s. d.
A.8	$2rac{1}{2} imes$ I $rac{5}{8}$	$4 \times 6^{\frac{1}{2}}$	1 0	1 2	1 6
N.6	3×2	$5 \times 7\frac{1}{2}$		1 0	
B.1	$2\frac{1}{4} \times 2\frac{1}{4}$	6 × 6		1 0	
B.II/8	31×21	6×9	1 0	1 2	1 6
*B.II M8	$3\frac{1}{4} \times 2\frac{1}{4}$	6×9	1 0	1 2	1 6
D.8	$4\frac{1}{4} \times 2\frac{1}{5}$	$6\frac{1}{2} \times 11$	1 3	1 6	1 9
*DM.8	$4\frac{1}{4} \times 2\frac{1}{3}$	$6\frac{1}{2} \times II$		1 6	1 9
Ē	41×31	8 × 101		2 4	
G	$5\frac{1}{2} \times 3\frac{1}{4}$	8 × 14		3 0	
	ols are wo		diameter metal of	cores.	
-					
FILM P	PACKS	12 exposi	ires in metal cas	sings. (C)	
	$2\frac{3}{8} \times I\frac{3}{4}$	$4\frac{1}{2} \times 6$	2 0	2 3	
	31×21	6 × 9	2 0 2 8 4 6 5 3	2 11	4 0
	41×31	8 × 103	4 6		
	$4\frac{3}{4} \times 3\frac{1}{5}$	9 × 12	5 3	50 59	7 3
	12 22				
108		En Zin	Then Contra Ch	ala ana barra	
100		FOR Zeiss	Ikon Contax Spo	ois. see page 71	

LIST OF PUBLICATIONS

Further particulars of Zeiss Ikon apparatus are to be found in the several publications listed here below. Copies of any booklet will be sent post free on request.

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In addition to cameras and photographic apparatus Zeiss Ikon manufacture many other products, amongst them the following may be mentioned :---



ZEISS IKON EPIDIASCOPES

Zeiss Ikon Epidiascopes, instruments for projecting both the usual lantern slides and opaque objects up $6\frac{1}{2}$ ins. square, are available in a wide range of models. Prices from £22 2s. 6d. for the Adept, illustrated, to £,140 os. od. with the Magister.

Full particulars of Zeiss Ikon Epidiascopes will be supplied on request.

ZEISS REFLECTOR LAMPS



ZEISS WISKOTT SYSTEM

for lighting shops, offices, warehouses and all kinds of commercial buildings, embody optical principles applied in a practical way to illumination problems. They combine pleasing appearance with the utmost efficiency as lighting units. Over the ordinary type of opal bowl fitting they will give an increase of illumination of nearly double, or alternatively effect a saving of current consumption from 40% to 60%.

Copy of our catalogue of lighting fittings together with further information will be sent on request.

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