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# SHUTTER SPEEDS AND LENS OPENINGS

\* In most cases, it is more important to take the picture at a specific shutter speed than at a particular lens opening. Almost all subjects are likely to move to some extent during the exposure, and all photographers tend to move the camera slightly when taking a photograph. By selecting a shutter speed fast enough to overcome subject and camera motion, you are assured of obtaining a sharp, clear picture.



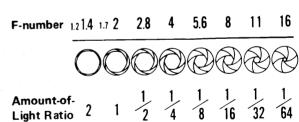


At 1/30 Second

At 1/500 Second

\* Should you prefer to take the picture at a specific lens opening to obtain more or less depth-of-field (see p. 26). this may easily be done while in "Automatic" (AE) mode. Just look through the viewfinder and rotate the Shutter Speed Dial (20) until the desired lens aperture is indicated by the Meter Needle (56) ... and take the picture! Your photograph will be correctly exposed, automatically, at the lens aperture indicated in the viewfinder.

Alternatively, it is possible to note the lens opening indicated by the Meter Needle, then manually set the Aperture Ring of the Lens to this position. However, there is no practical advantage in doing this: operation is faster and exposure accuracy is greater when the aperture is set by the automatic exposure mechanism.



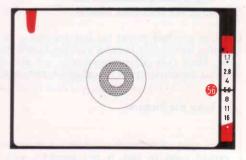
Like your eye, your camera lens has an iris, generally called the diaphragm. Open it up, and it admits more light; close it down, it admits less. The amount of light is indicated by f/stops (also known as "apertures"): f/2.8 admits half as much light as f/2; f/4 admits one-quarter as much as f/2, and so on.

Konica T4

Manual exposure settings are used primarily in flash photography (p. 29-30), and to obtain intentional under or over-exposure-for example, to create a 'silhouette' effect by deliberately under-exposing the subject. It's easy:

- 1) Set Shutter Speed Dial (20) to desired speed.
- Press AE Release Button (13) on lens and set lens Aperture Control Ring (12) to desired f/stop.
- Move Film Transport Lever (14) to "Ready" position (so that Red Dot on camera top is visible).
- Frame, focus...and take the picture. Your photograph will be exposed at the shutter speed and lens opening you have selected.
- \* In Manual operation, the Meter Needle (56) continues to show the recommended lens opening. Thus, if the recommended lens opening is f/8 and you wish to obtain a silhouette effect, set Aperture Ring to f/16 to under-expose by two f/stops. In manual operation, the picture will always be exposed at the settings you have made.





When the Aperture Ring of your lens is set manually, a Red – Signal Mark appears at the left side of the viewfinder. This Signal also functions when using non-automatic lenses or accessories, to remind you that the exposure must be set manually.

# OPERATION WITH UNCOUPLED LENSES/ACCESSORIES

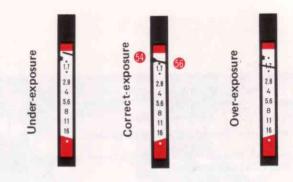
Your Konica's through-the-lens metering system works perfectly even with non-automatic lenses and accessories, which do not couple to the camera's automatic exposure mechanism. (Example: Mirror lenses, lenses from other cameras used with Konica adapters, even extension rings or bellows.) Here's how to use your Autoreflex T4 in these situations:

- 1 Set the Film Speed.
- Select the Shutter Speed.
- 3 Align the Indicator Needle.

Open up (or close down) the lens aperture until the Meter Indicator Needle (56) lines up with the Stop-down Metering Index Mark (54). (If preferred, you can also do this by changing the shutter speed instead of the lens aperture.)

# 4 Take the Picture!

Remember...this stop-down metering procedure is not needed (and in fact is not possible) with Konica Automatic lenses mounted on the camera body. Stop-down metering is used *only* for uncoupled lenses or accessories.



When using the stop-down metering system with uncoupled lenses or accessories, keep in mind that the f/stop scale in the viewfinder no longer applies; neither do the under or over-exposure warning bands. If the needle's above the Index Mark (54) as shown (above, left) there's not enough light; if it's below this mark (above, right) there's too much light. Solution: change lens aperture and/or shutter speed until the needle lines up with the Index Mark.

In full-aperture metering with Konica Automatic lenses stray light which may enter the eyepiece and reach the meter cells has virtually no effect on exposures. In stop-down metering with uncoupled lenses or accessories, however, such light can have the effect of incorrectly influencing the meter's reading. Whenever you're using the stop-down metering system, be sure to place your eye as close as possible to the eyepiece, to prevent stray light from entering. (A Konica Rubber Eyecup, available from your dealer, helps here.)







Another way your Konica Autoreflex-T4 lets you explore creative special-effects photography is by making multiple exposures when desired. Your Konica Autoreflex-T4 camera film transport lever which permits an infinite number of different exposures to be made on a single frame of film. After shooting the first exposure, press this control inward toward the camera body. While holding this control in position, move the film transport lever completely through its cycle; you're now ready to shoot again on the same frame of film. This process may be repeated any desired number of times. (Naturally, be very careful not to jar or move the camera between exposure, or the frames will not register perfectly.)

When making multiple exposures, allow 1/2 normal exposure for a "double" exposure, 1/3 normal exposure for each shot in a "triple", and so on. This can easily be done by re-setting your film speed. For example; for a double exposure with ASA 64 film, shoot both exposures at ASA 125.

# **DEPTH-OF-FIELD CONTROL**

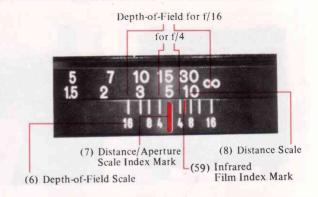
Depth-of-Field is the distance between the nearest and farthest objects in the scene that will be sharp in the finished picture. In practical terms this means that when you bring an object into sharp focus, objects behind and in front of this will be rendered more or less sharply as well. For more Depth-of-Field, use a smaller f/stop (for example, f/11 instead of f/5.6). For less Depth-of-Field, use a larger f/stop (for example, f/4.0 instead of f/8).

# Using Depth-of-Field Scale on Lens:

On the Depth-of-Field Scale, f/stop markings identical to those on the Manual Aperture Scale (9), are repeated to the right and left of the Distance/Aperture Scale Index Mark (7). The Depth-of-Field for any focused distance will be found between any two identical f/stop markings on the Depth-of-Field Scale. Thus, if the lens is focused at 15 feet and the picture is to be made at f/16, referring to f/16 on both sides of the scale tells us that the Depth-of-Field extends from Infinity to about 8 feet. For maximum Depth-of-Field, including Infinity, set the Infinity mark to the f/stop in use, on the right hand side of the scale.

# Visual Depth-of-Field Preview:

If you want to check the Depth-of-Field while looking through the finder, read the f/stop indicated by the meter needle; detach the aperture control ring from the AE (EE) position and set the manual aperture reading, before you check the Depth-of-Field by depressing the Depth-of-Field Preview Lever (27).



Infrared Film Index Mark: Infrared rays come to a different focus than visible light rays. When shooting infrared film with the appropriate filter, focus as usual. Then bring the distance figure opposite the Distance Scale Index Mark (7) into line with the Infrared Film Index Mark (59).



# www.orphancameras.com DEPTH-OF-FIELD TABLES

 $(50 \text{mm f}/1.7 \cdot 50 \text{mm f}/1.4)$ 

Permissible Aberrated Circle Diameter 3/100mm (Unit: Feet)

Distance Aperture	1.5	1.75	2.0	2.5	3.0	3.5	4.0	5.0	7.0	10.0	15.0	30.0	$\infty$
F1.4	1.49	1.73	1.98	2.47	2.96	3.44	3.92	4.88	6.76	9.50	13.89	25.68	185.00
F 1.4	1.51	1.76	2.02	2.53	3.04	3.56	4.08	5.12	7.25	10.53	16.25	35.30	$\widetilde{\infty}$
F1.7	1.49	1.73	1.98	2.46	2.95	3.43	3.91	4.85	6.71	9.41	13.69	25.09	152.18
F 1.7	1.51	1.76	2.02	2.53	3.05	3.57	4.09	5.15	7.31	10.65	16.56	37.10	$\sim$
F2	1.49	1.73	1.97	2.46	2.94	3.42	3.90	4.84	6.67	9.33	13.52	24.53	133.20
Г 2	1.51	1.77	2.02	2.54	3.06	3.58	4.11	5.17	7.35	10.75	16.81	38.42	$\widetilde{\infty}$
F2.8	1.48	1.72	1.97	2.45	2.92	3.39	3.86	4.77	6.56	9.09	13.02	22.88	95.23
F 2.0	1.52	1.77	2.03	2.55	3.08	3.61	4.15	5.24	7.51	11.09	17.67	43.36	$\widetilde{\infty}$
F 4	1.48	1.72	1.95	2.43	2.89	3.35	3.80	4.69	6.38	8.76	12.33	20.79	66.75
- T	1.52	1.78	2.04	2.57	3.11	3.66	4.21	5.36	7.75	11.64	19.15	53.75	$\widetilde{\infty}$
F5.6	1.47	1.70	1.94	2.40	2.85	3.30	3.73	4.57	6.17	8.35	11.52	18.54	47.77
F 3.0	1.53	1.79	2.06	2.61	3.16	3.73	4.31	5.51	8.10	12.47	21.56	79.10	$\widetilde{\infty}$
F 8	1.46	1.69	1.92	2.36	2.80	3.22	3.63	4.42	5.87	7.80	10.49	15.96	33.53
го	1.54	1.81	2.09	2.65	3.24	3.84	4.46	5.77	8.69	13.97	26.61	273.36	$\widetilde{\infty}$
F11	1.44	1.67	1.89	2.32	2.73	3.12	3.51	4.23	5.55	7.22	9.44	13.61	24.47
1 11	1.56	1.84	2.13	2.72	3.34	3.98	4.66	6.13	9.56	16.46	37.71	$\infty$	$\widetilde{\infty}$
F16	1.42	1.63	1.84	2.24	2.62	2.98	3.33	3.96	5.08	6.42	8.10	10.95	16.92
L 10	1.59	1.88	2.19	2.83	3.52	4.25	5.05	6.84	11.51	23.52	126.48	$\sim$	$\widetilde{\infty}$



(57mm f/1.2)

Permissible Aberrated Circle Diameter 3/100mm (Unit : Foot)

(371111117) 1.2)						Permissible Aberrated Circle Diameter 3/100mm (Unit: Fe									
Distance Aperture	1.5	1.75	2.0	2.5	3.0	3.5	4.0	5.0	7.0	10.0	15.0	30.0	$\infty$		
F1.2	1.49	1.74	1.99	2.48	2.97	3.46	3.95	4.92	6.84	9.67	14.23	27.07	282.03		
F 1.2	1.51	1.75	2.00	2.51	3.03	3.54	4.05	5.08	7.16	10.34	15.76	33.35	$\widetilde{\infty}$		
F1.4	1.49	1.74	1.98	2.48	2.97	3.45	3.94	4.91	6.82	9.62	14.12	26.66	241.79		
F 1.4	1.51	1.75	2.01	2.51	3.03	3.54	4.06	5.09	7.19	10.40	15.90	34.01	$\widetilde{\infty}$		
F2	1.49	1.73	1.98	2.47	2.95	3.44	3.92	4.87	6.74	9.47	13.79	25.48	169.35		
Γ Z	1.51	1.76	2.01	2.52	3.04	3.56	4.08	5.13	7.27	10.59	16.34	36.15	$\widetilde{\infty}$		
F2.8	1.48	1.73	1.97	2.46	2.94	3.41	3.89	4.82	6.65	9.28	13.37	24.07	121.06		
F 2.0	1.51	1.76	2.02	2.53	3.06	3.59	4.11	5.19	7.39	10.84	16.97	39.46	$\widetilde{\infty}$		
F4	1.48	1.72	1.96	2.44	2.91	3.38	3.84	4.75	6.51	9.00	12.80	22.22	84.84		
_ <del>- 4</del>	1.52	1.77	2.03	2.55	3.09	3.62	4.17	5.27	7.57	11.25	18.02	45.77	$\sim$		
F5.6	1.47	1.71	1.95	2.42	2.88	3.34	3.79	4.66	6.33	8.66	12.10	20.17	60.69		
F J. 0	1.52	1.78	2.04	2.58	3.12	3.67	4.24	5.39	7.83	11.84	19.63	58.22	$\widetilde{\infty}$		
F8	1.47	1.70	1.93	2.39	2.84	3.28	3.70	4.53	6.09	8.20	11.19	17.72	42.58		
F 0	1.53	1.79	2.06	2.61	3.18	3.76	4.35	5.58	8.25	12.86	22.70	98.62	$\widetilde{\infty}$		
F11	1.45	1.68	1.91	2.35	2.78	3.20	3.61	4.38	5.81	7.68	10.24	15.39	31.06		
FII	1.54	1.81	2.09	2.66	3.25	3.86	4.49	5.83	8.84	14.43	28.23	$\widetilde{\infty}$	$\widetilde{\infty}$		
F16	1.44	1.66	1.87	2.29	2.70	3.09	3.46	4.15	5.40	6.96	8.97	12.65	21.45		
F 10	1.57	1.84	2.14	2.74	3.38	4.06	4.77	6.32	10.07	18.15	47.83	8	$\widetilde{\infty}$		



# FILM REWIND AND UNLOADING







After all the pictures on the roll have been taken, the film is rewound into the cassette prior to removal for processing.

An occasional look at the Film Counter (2) will help you keep posted as to when you are coming to the end of the roll and prevent your accidentally tearing the film out of the cassette. If you should come to the end of the film while moving the Transport Lever, the Transport Lever (14) will tighten and refuse to advance even if the shutter has been released. If this happens do not force it! Instead, depress the Film Rewind Button (44) and at the same time move the Film Transport Lever as far as it will go. It will then snap back into its normal position. Then, just ....

- 1 Depress the Film Rewind Button (44). Once it is depressed, the button remains in place.
- 2 Lift up the Film Rewind Crank (22) and turn it clockwise at moderate speed in a continuous motion.

  An arrow on the Rewind Crank indicates correct direction.
- When tension on the Film Rewind Crank eases, the film has been fully rewound. You can now open the camera back and remove the cassette by tipping it towards yourself and letting it drop out of the bottom opening.

The Film Rewind Button returns to its original position once the Film Transport Lever is again actuated. In addition, the Film Counter automatically resets itself to "S" (Start) as soon as the back was opened ... so you're ready to load your next roll right away!

## FLASH PHOTOGRAPHY

Your Konica Autoreflex T4 camera has several features which make flash photography easy.

\* With electronic flash, set Shutter Speed Dial (20) to 1/125th second. This shutter speed prevents annoying 'ghost' images (and possible color shifts) which may be encountered at slower shutter speeds.

\* For maximum convenience, a "Hot" accessory shoe is built-in to your T4. Simply slide in any "Hot Shoe" flash...no cords to connect.

If your flash unit does not have a "Hot Shoe", or if you prefer to use a separate flash bracket, plug the flash cord into the Flash Cord Terminal (24).

In flash photography, the built-in exposure meter is not used.



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# With KONICA X-20 or Other Manual Flash Units

Set calculator dial of Flash to correct ASA film speed. Your flash dial will now indicate the correct lens openings for various distances. Focus, and set lens Aperture Control Ring (12) to the aperture indicated by your flash for the actual camera-to-subject distance, as shown by your lens' Distance Scale (8). All photographs taken at this flash-to-subject distance will be properly exposed.

# Flash Synchronization for KONICA T4

Con- tact	Shutter Speed Bulb	8	-1	2	4	ω	15	30	60	125	250	500	1000
	Electronic Flash	0	0	0	0	0	0	0	0	0			
×	Class M	0	0	0	0	0	0	0					
	Class MF (flashcube)	0	0	0	0	0	0	0					
	Synch	iro	niz	zed			N	ot	sy	ncl	ırc	ni	zed

# With KONICA X-28 or Other Automatic Flash Units

Set calculator dial of flash to correct ASA film speed. Your flash dial will now indicate the correct lens opening for photography at a wide range of distances.

Set lens Aperture Control Ring (12) to the aperture indicated by your flash dial. You can now take pictures at any distance within the range indicated by your flash without further exposure adjustments.

### SELF-TIMER

This trips the shutter for you, after a delay ranging from 4 to 10 seconds; thus, you can walk around and appear in the photograph yourself. The Self-Timer is also valuable in close-up and technical photography, as it trips the shutter internally—reducing the possibility of blur due to camera movement at the moment of exposure. To use the Self-Timer (4) simply move the Timer



counterclockwise, then depress the Shutter Release Button (1). According to the degree you have moved the Timer down, the shutter will fire within about 4 seconds to a maximum of 10 seconds.

When The Self-Timer is not in use, push the lever to its maximum vertical position — Engaging the Lock Pin (3). This prevents accidental activation of the Self-Timer

# TIME EXPOSURES

When the shutter speed dial is set at "B", the shutter will remain open as long as the shutter release is held down. As a result, exposures longer than one second — as long, in fact, as several hours may be taken at night, or in dimly- lit places where there is no moving subject. If an exposure of more than several seconds is desired, attach a Konica Cable Release (available from your dealer) to the Shutter Release Button (1). Set the shutter speed dial to "B". Press down the cable release "plunger", and hold it down for as long an exposure time as is desired. When the cable release plunger is released, the shutter closes.

In Time exposures, move the Aperture Control Ring to the desired f/stop and expose manually. Automatic exposure operation is not possible with time exposures.

It is recommended that you use a tripod or other support for "B" time exposures and all other exposures longer than 1/30th second.

## Caring for Your Camera and Lenses

Your Konica Autoreflex T4 has been designed and constructed for thousands of successful photographs. To insure utmost reliability, follow these simple steps:

- Protect your camera and lenses. Dust, dirt, and moisture are the natural enemies of all precision instruments. Always replace the lens (or attach your Konica Body Cap) when storing the camera. Keep your camera within its carrying case whenever possible. Never attempt to clean, adjust, or disassemble the camera or lens for any reason. In the unlikely event service becomes necessary, forward the equipment to an authorized Konica Service Center.
- In extremely cold weather, protect your camera by carrying it within its case, keeping it inside your clothing until actually taking a picture. If exposed to extremely cold temperatures, your camera's meter batteries may fail to operate properly. By keeping your camera inside your coat, next to your body, the camera's temperature will in most instances remain virtually normal and no problems should be encountered.
- Avoid excessive force in attaching accessories (such as cases and tripods) to the Tripod Socket (48) of your camera. When attaching these, tighten the locking screw firmly but do not tighten more than is necessary.
- The Built-in Hot Shoe (19) of your camera is intended for use with flash units of normal size and weight, such as the Konica X-20 flash. In the event a much heavier flash unit is employed, it is advisable to mount the flash on a flash bracket, available from your dealer as an accessory.

# **ACCESSORIES**



### Auto Winder

The Auto Winder is an accessory for exclusive use on the Konica Autoreflex-T4. Mount the Auto Winder on your Konica Autoreflex-T4 camera, and the film will be automatically wound merely by depressing the shutter release button. Compact and lightweight, the Auto Winder makes it possible to take pictures in succession at a rate of about 1.8 frames per second or to take single-frame pictures, while looking through the finder at a moving subject. The Auto Winder is equipped with a convenient wrist strap for one-hand operation.



## **ACCESSORIES**

## • Eyecup 2 (for T4 use)

Large, soft rubber eyecup shields meter, eye from extraneous light, aids concentration. Prevents metal-to-skin contact in cold weather. Eyecup folds down for eyeglass wearers.



# • Diopter Correction Lens 2

Corrects viewfinder optics to prescription requirements; vastly aids viewing/focusing comfort, accuracy. +1, +2, and +3 diopter lenses for farsighted persons; -1, -2, and -3 for near-sighted persons.



Note: The T4's built-in optical system has an effective "diopter" rating of -1. If a +3 Diopter Correction Lens is used, the resultant strength of the entire viewing system will be +2.

# • Eyepiece Converter

Eyepiece Converter is to be used to mount Magnifier and Angle Finder 3 on Autoreflex T4 simply by sliding it on the eyepiece frame of T4 body.



# Magnifier

Precision magnifier attaches to standard eyepiece, provides full 2X magnification of central finder area. Flips up when not in use, Focusing optics provide individual diopter correction. Doubles focusing accuracy.



# Angle Finder 3

Attaches to viewfinder eyepiece, enables convenient 45° viewing angle. Shows entire finder image including aperture scale. Swivels 360° for viewing from any angle. Individual diopter adjustment.



# • Close-Up Lens No. 1 (55mm)

Achromatic 2-element formula. Requires no exposure compensation: all camera controls remain automatic. Permits focusing from 25''-12'' from film frame with subjects from  $9 \times 13\%''$  to  $3\% \times 5\%''$ .

# • Close-Up Lens No. 2 (55mm)

Achromatic 2-element formula, range from 14'' - 10'' from film plane. Fills frame with area from  $4\frac{1}{2} \times 6\frac{1}{2}$ '' to  $2\frac{1}{2} \times 3\frac{3}{4}$ '', combined with No 1 close-up lens, focuses from  $12'' - 8\frac{1}{2}$ '', covers area from  $3 \times 4\frac{1}{2}$ '' to  $2 \times 3$ '' (0.5X - one half actual size).



# Konica T4

## Extension Ring Set 3

Six-piece set allows 14 different extensions from 10mm – 88mm; magnification to 1.88X (almost twice actual size) with standard lens. Supplied with 5mm camera and body mounting rings, 8mm, 16mm, and 24mm screw-in extension rings, and 30mm reverse adapter for 55mm – thread lenses. Manual diaphragm control; stop-down (match-needle) metering. Converts to automatic diaphragm control with accessory Auto-Ring 2 and double cable release. Does not accept Macrostand or Slide Copier 2.



### Auto Helicoid

Automatic, continuously-variable focusing mount enables 105mm f/4 Auto Macro Hexanon AR lens to focus from Infinity to 23". Retains full AE (EE) and automatic diaphragm coupling. May also be used with 105mm lens and Konica Auto Bellows for semi-automatic operation with magnifications greater than 1.28X.



## KONICA X-28 Automatic Electronic Flash

Ideal for automatic flash photography with your Konica T4. Auto operation 24" to 16.4 feet; choice of lens openings allows depth-of-field control. Swivel mount for optimum coverage even with 35mm w/a lenses. Gives apx. 200 flashes on four standard AA Alkaline batteries. With Case and PC Cord.

### X-20 Electronic Flash

Exceptionally compact electronic flash for cordless or cord-type operation. Guide Number 64 with ASA 80/125 film permits shooting distances to 40 feet with f/1.7 lens. Up to 400 flashes with four standard AA Alkaline batteries.

### X-14 Electronic Flash

Extremely small cordless electronic flash, Guide Number 45 with ASA 80/125 film. Permits shooting distances to 28' with f/1.7 lens. Approximately 200 flashes with two standard AA Alkaline batteries.



## **ACCESSORIES**

# Auto Bellows with Double Cable Release

Maintains automatic diaphragm operation. Extension Range 47mm - 188mm magnifications from 0.9X - 3.5X with standard lens. Entire front standard reverses without accessories, retains automatic diaphragm coupling in reversed position. Geared front and rear focusing controls with positive locks. Main focusing rail permits moving entire assembly over 114mm range for focusing at predetermined magnification ratios. The focusing rail may be used laterally, for sideways movement of entire assembly over 114mm range. Locking depth-of-field preview control.

European and American-style tripod sockets. Cable release supplied simultaneously activates lens diaphragm, body shutter release. Used with stop-

down (match-needle) metering. Accepts accessory Macro Stand, Slide Copier 2.



### Macro Stand

For use with Konica Auto Bellows: Positions subject absolutely parallel with camera and lens. Rotating (75mm diameter) specimen "stage" has hold-down spring clamps to secure subject in desired position. Stage has 18% grey reflectance factor for correct exposure readings irrespective of subject size, coloration (exposure readings taken directly from stage). Used at magnifications from 0.9X - 2.3X with standard lens. Superb tool for photography of stamps, coins, insects, any small easily-moved subject.



## • Slide Copier 2

Attaches to Auto Bellows or Standard Bellows 3, allows same-size or cropped duplicates of standard 24 x 36mm or smaller transparencies. Accepts mounted slides or uncut strips, rolls. 18mm horizontal, 12mm vertical shift. Requires special Slide Copier Reverse Ring; auxiliary Reversal Ring to reverse-mount lens on bellows.



# • Slide Copier Reverse Ring

This ring is required for photography with the slide copier and used together with a lens reversal ring. The Slide Copier Reverse Ring is usable at the magnification ratios of 1.4X to 4X with a standard lens (50mm f/1.7).



# • Lens Reversal Ring (55mm)

Permits reversing all 55mm-thread lenses without reversing front standard of Auto Bellows and Standard Bellows 3. Required for reverse mounting of lens with Slide Copier 2 (5mm depth).



# • 57mm f/1.2 Bellows Adapter

For 57mm f/1.2 Hexanon lens only; converts oversize (62mm) barrel to 55mm front diameter, permits lens reversal with Auto Bellows and Standard Bellows 3. Used in conjunction with Lens Reversal Ring (55mm) to reverse lens with Slide Copier 2.



### Standard Bellows 3

Precision extension bellows with geared front focusing, extension range 47mm – 188mm (0.9X – 3.5X magnification with standard lens). Front standard reverses without accessories for optimum resolution at 1:1 and greater ratios. Rear standard with lock permits manual movement. Manual diaphragm control and stop-down (match-needle) metering; converts to automatic diaphragm control with accessory Auto Ring 2 and double cable release. May be used with Slide Copier 2; does not accept Macro Stand.



# Konica 14

## Auto Ring 2 with Double Cable Release 2

Provides automatic diaphragm control with Standard Bellows 3 or Extension Ring Set 3 (also retains automatic diaphragm operation when lens is reverse mounted on Slide Copier 2 with Auto Bellows). Gives additional 14mm extension for greater magnifications. Cable release has lock for time exposures.



## **ACCESSORIES**

KONICA Lens Mount Adapters for Manual diaphragm operation

# • Exakta/Topcon Adapter 2

Permits use of Exakta-mount lenses with match-needle exposure control. Retains original focusing range.



# • Praktica/Pentax Adapter 2

Permits use of Pentax/Praktica-screw mount lenses with match-needle exposure control. Retains original focusing range.



# Nikon/Nikkormat Adapter

Permits use of Nikon-mount lenses with match-needle exposure control. Retains original focusing range.



• Standard Case for use of 50mm f/1.7 or f/1.4

• Case for T4 with Auto Winder

## • Front Cover of Semi-Hard Case

Type M: Usable even when a 15,24,28, 35mm w/a lenses or 57mm f/1.2 standard lens is mounted on the camera.

Type L: Usable even when a 85, 100, 135mm telephoto lenses or 45-100mm Zoom lens is mounted on the camera



# • Lens Soft Case No. 50, 135 and 300

Three types of fancy and handy Lens Soft Cases are available for Hexanon users who desire an added convenience in carrying various kinds of lenses.

No.	Application Lenses
50	15,21,24,28,35,50 or 57 mm
135	85, 100, 135, 45-100 mm or 55 with 1x Adapter 105 with Auto Helicoid
300	200, 300, 35-100 or UC 80-200 mm



# • Copy Stand 2 with Focusing Rail

Oversize 18½ x 19½" baseboard; reversible camera arm permits positioning camera from 31" above baseboard to directly atop, for unlimited magnification capability. Geared focusing rail with lock allows precise camera movement over 114mm range; focusing rail swivels for copying wall-mounted material. Baseboard finished in 18% grey reflectance material, permits exposure readings to be taken from baseboard irrespective of subject size or coloration.



## • Focusing Rail

Supplied as standard equipment with Konica Copystand 2, this precision accessory permits camera movement over a 114mm range. Geared focusing knob with positive lock to prevent slippage. Particularly valuable in close-up work with tripod-mounted camera, where it is inconvenient (or impossible) to move camera or subject directly.



## • Cable Release 3

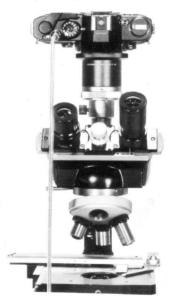
Precision 18" cable release with lock for time exposures. Vinyl clad for extra durability.



# Konica T4

## Microscope Adapter 2

Uses optical system of microscope in place of camera lens; unlimited magnification capability. May be used with or without microscope ocular. Mounting clamp fits standard 25mm-diameter microscope ocular tubes. Bayonet lock ring allows fast, positive camera attachment, removal.



Konica wide-angle, standard, telephoto, zoom and macro lenses are precisely manufactured for perfect performance with your Konica Autoreflex T4 camera. Each automatic lens provides full AE (EE) coupling as well as automatic

diaphragm control for fast, error-free photography. All Konica lenses (except standard lenses) are supplied with cases and detachable or built-in lens hoods.

Focal Length	Apertures Max Min.	Construction Elements/ Groups	Angle Of View	Min. Focus From Film Plane	Length	Max. Diameter	Weight	Filter	Lens Hood	Case
15mm UC 1	f/2.8-f/16	10/7	180°	5.9"	2.4"	2.8"	13.9oz.	Built-in	Built-in	Incl.
21mm	f/4.0-f/16	11/7	90°	7.9"	2.3"	3.2"	12.0oz.	77mm	Incl.	Incl.
24mm	f/2.8-f/16	8/8	84°	9.8"	2.1"	2.5"	9.9oz.	55mm	Incl.	Incl.
28mm UC 2	f/1.8-f/16	8/8	75°	7.1"	2.5"	2.6"	13.4oz.	55mm	Incl.	inci.
28mm	f/3.5-f/22	5/5	75°	11.8"	1.4"	2.5"	6.20z.	55mm	Incl.	Incl.
	f/2.0-f/16	9/7	63°	11.8"	2.2"	2.6"	11.3oz.	55mm	Incl.	Incl.
35mm	f/2.8-f/16	6/5	63°	11.8"	2.2"	2.5"	8.50z.	55mm	Incl.	inci.
35mm	f/1.4-f/16	7/6	46°	17.7"	1.8"	2.6"	10.2oz.	55mm	705-528	705-540
50mm		6/5	46°	21.7"	1.6"	2.5"	7.4oz.	55mm	705-528	705-540
50mm	f/1.7-f/16	7/6	42°	17.7"	2.0"	2.8"	16.20z.	62mm	705-529	705-542
57mm	f/1.2-f/16		28.5°	39.4"	2.6"	2.6"	13.8oz.	55mm	Incl.	Incl.
85mm	f/1.8-f/16	6/5	26.3 24°	39.4"	2.4"	2.5"	10.2oz.	55mm	Incl.	Incl.
100mm	f/2.8-f/16	5/4			3.8"	2.7"	22.9oz.	62mm	Built-in	Incl.
135mm	f/2.5-f/16	4/4	18°	47.2"				-	Built-in	Incl.
135mm	f/3.5-f/22	4/4	18°	59.1"	3.2"	2.5"	11.1oz.	55mm		<del></del>
200mm	f/4.0-f/22	5/5	12°	8.2	4.7"	2.6"	18.20z.	55mm	Built-in	Incl.
300mm	f/4.5-f/16	8/5	8°	13.1'	6.6"	3.2"	34.0oz.	72mm	Built-in	Incl.
300mm 3	f/6.3-f/22	9/5	8°	14.8	5.8"	2.6"	19.8oz.	55mm	Built-in	Incl.

<sup>1</sup> Fish-eye type – image fills entire film frame.

KONICA HEXANON

<sup>2</sup> Incorporates Floating Element system for optimal sharpness even at closest distance.

<sup>3</sup> Fluorite Construction

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Focal Length	Apertures Max Min.	Construction Elements/ Groups	Angle Of View	Min. Focus From Film Plane	Length	Max. Diameter	Weight	Filter	Lens Hood	Case
400mm UC	f/5.6-f/45	5/9	6°	13.1'	8.5"	3.3"	3.5lbs.	77mm	Built-in	Incl.
800mm †	f/8.0-f/45	2/1	3°	65.6	30.5"	5.3"	12.3lbs.	55mm	Built-in	Incl.
1000mm †	f/8.0-f/45	7/6	2.5°	82.0 <sup>′</sup>	17.9"	7.9"	18.7lbs.	55mm	Built-in	incl.
35-100mm 4	f/2.8-f/16	15/10	63-24°	10.6"	5.5"	3.4"	38.4oz.	82mm	incl.	Incl.
45-100mm UC4	f/3.5-f/16	11/10	52-2 <b>4</b> °	13.8"	3.3"	2.8"	20.1oz.	55mm	Built-in	Incl.
80-200mm UC 4	f/4.0-f/16	14/10	30-12°	27.6"	6.2"	2.7"	29.3oz.	62mm	Built-in	Incl.
55mm 4	f/3.5-f/22	4/3	43°	8.7"	2.4"	2.5"	10.2oz.	55mm	705-528	Incl.
105mm	f/4.0-f/22	5/3	23°	28.0" *	1.9"	2.5"	8.1oz.	55mm	705-533	incl.

KONICA HEXAR

:	28mm	f/3.5-f/16	5/5	75°	11.8"	1.6"	2.6"	6.90z.	55mm	Incl.	Incl.
	135mm	f/3.5-f/16	4/4	18°	59.1"	3.8"	2.7"	19.2oz.	55mm	Built-in	Incl.
	200m m	f/4.0-f/16	4/4	12°	8.2	6.0"	3.0"	28.60z.	55mm	Built-in	Incl.

<sup>†</sup> All lenses fully automatic except as indicated.

For a more detailed description of lenses and accessories, please see your Konica dealer or write Konica Camera Company, Woodside,
New York 11377, Specifying products or areas of greatest interest to you.

<sup>4</sup> Macro Focusing

<sup>\*</sup>In accessory Konica Auto Helicoid