

WILSONWERKS ARCHIVES

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MINOX

Camera



Speeds $1/2 - 1/1000$ sec., T. & B. flash synchronized, Range from 8" to Infinity, Automatic and simultaneous shutter winding and film transport, Lens F 3.5, coated, four elements. The tiny camera of great performance.

MINOX G. m. b. H., WETZLAR (Germany)

Giessen-Heuchelheim Works · Address: Giessen, Postfach 137

Printed in Germany

W 405 a

MINOX

Exposure meter



U. S. Distributors
KLING PHOTO CORPORATION

235 Fourth Avenue
New York 3, N. Y.

Worlds smallest, lightest and finest photo electric exposure meter

Measures your exposure most accurately and is the simplest to read

The built-in viewer

presents to you the entire outline of the scene to be measured.

The result - the exact length of exposure

is read without any adjustments; it remains recorded by the arrested exposure indicator needle; the needle will be released only when the next measurement is taken

Shock protected

the measuring apparatus is hung on springs attached to jeweled bearings

Film speed setting

by turning of a fingertip dial. The film scale is calibrated in ASA and DIN ratings

The great angle of acceptance

of the MINOX meter covers the field of view of any conventional lens

The novel light metal case

of the meter is outstanding in beauty and simplicity of design. A special treatment protects the surface of the meter from any external influence

The chrome-plated carrying measuring chain

protects the meter from fall — serves to measure close-by objects

The luxurious morocco leather case

gives excellent protection to this precision instrument and keeps the needle arrested, thus protecting the measuring apparatus of the meter

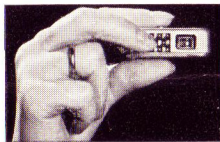
Smallest dimensions and minimum of weight

makes the MINOX Meter, as well as the MINOX camera, your steady companion

Wherever you go - your MINOX goes



Right



Wrong

The carrying case has a slot, to accommodate the meter release button.

Setting of film speeds

On the back of the meter, next to the **movable round disk**, is a chart indicating in ASA and DIN ratings the sensitivity of the film.

The symbols identifying the speed of film will also be found on the end of the **speed indicator cylinder** seen through the window on the front of the meter.

After loading a film into your camera, set your exposure meter to the identical film speed by turning the movable round disk with your

fingertip to such a position that the symbol identifying your film speed appears on the end of the indicator cylinder.

Measuring of length of exposure

Please Note:

The photo-electric cell is located behind the honeycomb window. Be careful never to obscure this window with your finger, while measuring an exposure.

While measuring the exposure, center the scene measured in the viewfinder. As the viewfinder and the photo-electric cell cover the same area, you will see through your viewfinder what parts of the scene, with their different degrees of lighting, are being measured.

While viewing, press down the button, located on top of the meter. This releases the exposure indicator needle, to move to the position indicating the correct length of exposure for the amount of light, falling on the scene.

By releasing the button the needle is arrested and the proper length of exposure can be easily read, over the guide lines, on the exposure indicator of the meter.

These exposure times are for the fixed lens aperture of the MINOX camera f 3.5.

Conversion chart for lens apertures

For other lens apertures determine the correct value from the chart on the back of the MINOX meter.

The **centre** vertical column of the chart contains exposure figures for opening f 3.5, as indicated on the exposure indicator cylinder on the front of the meter.

The proper exposures for apertures f 2, or f 2.8 are located **left** from the column,

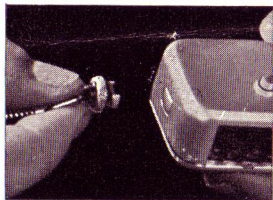
ASA DIN		Made in Germany	
10	11	10	11
20	14	20	14
40	17	40	17
80	20	80	20
2	2.8	3.5	5.6
2	2.8	3.5	5.6
2	2.8	3.5	5.6
5	2	3.5	2
10	5	3.5	2
25	10	3.5	2
50	25	3.5	2
100	50	3.5	2
250	100	3.5	2
500	250	3.5	2
1000	500	3.5	2
2500	1000	3.5	2
5000	2500	3.5	2
5000	2000	3.5	1000

indicating f 3.5 exposures. The figures for openings f 5.6 and f 8 are located to the right of the center column. Thus, if the meter shows an exposure for f 3.5 $\frac{1}{100}$ sec., you will find on the chart the proper exposure for f 2 $\frac{1}{500}$ sec., for f 2.8 $\frac{1}{250}$ sec., for f 5.6 $\frac{1}{50}$ sec. and for f 8 $\frac{1}{25}$ sec.

A detailed conversion chart is located at the end of this instruction booklet.

Attachment of the carrying measuring chain

Holding the chain in your right hand, press the ring which connects the lanyard to the locking attachment of the chain, into the narrow groove on the bottom of the attachment. Take the meter into your left hand and while holding the ring rigidly inside of the



groove as if it were a screwdriver, press the rectangular lower part of the chain attachment into the corresponding rectangular cut-out on the end of the meter and give a quarter of a turn, clockwise. This will engage the attachment to the body of the meter. To remove the chain, press the ring connecting the lanyard into the groove of the attachment and holding it down firmly, like a screw-driver, give a quarter of a turn, counter-clockwise.

Suggestions for use of the MINOX meter

Viewfinder

The size of the view, seen through the viewfinder and measured by the photoelectric cell, corresponds to the usual angle of photographic camera lenses.

Measuring of exposure time

Usually you will measure with the MINOX meter the light falling upon your object, from the same location and distance, as you will take the photograph with your camera.

Measuring at close distance

The length of exposure of your film should be such that the most important parts of the scene show proper graduation on the film negative. For this purpose, if there are great variations of contrast on the scene measured (person in front of white wall) it is recommended to take a meter reading at close distance. To obtain this, approach your subject, until it fills your entire viewfinder window and use the length of exposure measured at this distance.

Elimination of distracting lights

Frequently, in some views the sky will occupy a large portion of the scene, such as views of people standing against a bright sky, or wide open spaces. Measuring a scene, a large proportion of which is the bright sky, the meter will register an exposure which is perfect for the bright background of the sky, but too short for the foreground. In such cases it is recommended to take a reading at close distance (as mentioned above) or to tilt the meter so far downwards, that most of the sky is not more visible in the viewfinder. In such cases the measurement is based mostly on the illumination of the foreground or other important parts of the scene, located near-by.

continued



Photography against the light

In photography against the light, where it is essential that the shaded areas be well recorded on the film, the suggestions in above paragraph are most important.

Color photography

The light values of the different colors are registered by the photo-electric cell of the MINOX Meter. It is advisable to measure at close distance, wherever possible. Make adjustments, as mentioned below, in the following special cases:

1. In sunshine:

Main object in shade Double length of exposure
(e. g. $1/25$ instead of $1/50$ sec.)

Against the light . . . Expose at time and a half,
or double, of length of
exposure indicated by the
meter.

2. In dull weather: Double length of exposure.

Occasionally photographs, taken in mountains, with the sun standing high, have a bluish tinge. Photographs taken before noon or in the afternoon are preferable.

Exposure times for cine cameras

For miniature film Cine cameras the length of exposure of each individual frame is found on the following chart:

Exposures per second	8	16	32	64
Length of each exposure approx.	$1/20$	$1/40$	$1/80$	$1/150$ sec.

The use of lens stops with miniature movie cameras is mentioned in the following tables.

Table for cine exposures

Set film indicator cylinder to correct film speed

Length of exposure with MINOX meter	1/2	1/5	1/10	1/20	1/50	1/100	1/200	1/500	1/1000	1/2000
stops für 16 exposure/sec. normal		1,4	2	2,8	4	5,6	8	11	16	22
stops for 8 exposures/sec.	1,4	2	2,8	4	5,6	8	11	16	22	32
stops for 32 exposures/sec.			1,4	2	2,8	4	5,6	8	11	16
stops for 64 exposures/sec.				1,4	2	2,8	4	5,6	8	11

Example :

Set the speed indicator cylinder to the speed of your film. If you measure an exposure of $1/50$ sec., set your stops at

- 16 exposures per second . f 4
- 8 exposures per second . f 5.6
- 32 exposures per second . f 2.8
- 64 exposures per second . f 2

Detailed lens openings conversion table

Stop	1,4	2	2,8	⊖	5,6	8	11	16	22	32	
Exposure time in fractions of seconds	2	1	2	5	10	20	50	100	200	400	Exposure time in full seconds
	5	2	1	2	5	10	20	50	100	200	
	10	5	2	1	2	5	10	20	50	100	
	20	10	5	2	1	2	5	10	20	50	
	50	20	10	5	2	1	2	5	10	20	
	100	50	20	10	5	2	1	2	5	10	
	200	100	50	20	10	5	2	1	2	5	
	500	200	100	50	20	10	5	2	1	2	
	1000	500	200	100	50	20	10	5	2	1	
	2000	1000	500	200	100	50	20	10	5	2	
	4000	2000	1000	500	200	100	50	20	10	5	
		4000	2000	1000	500	200	100	50	20	10	
			4000	2000	1000	500	200	100	50	20	