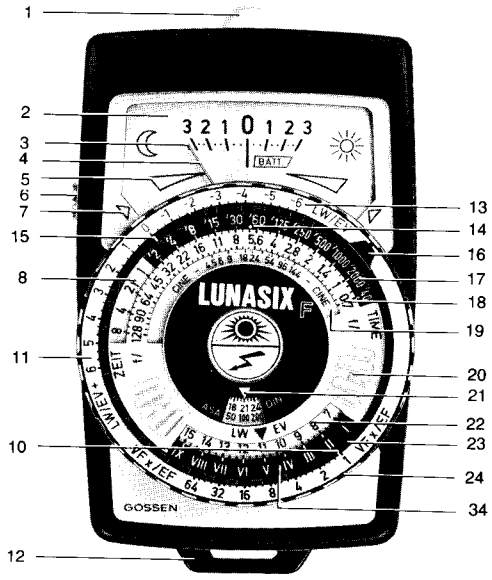
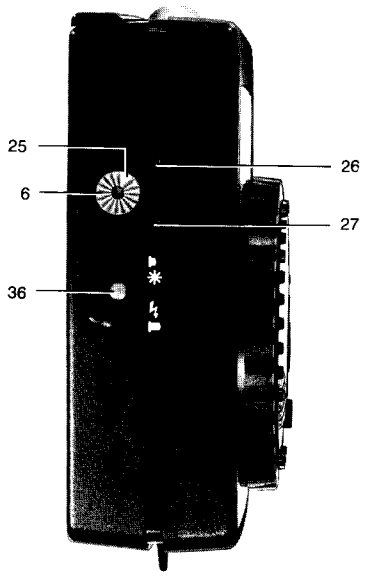
GOSSEN

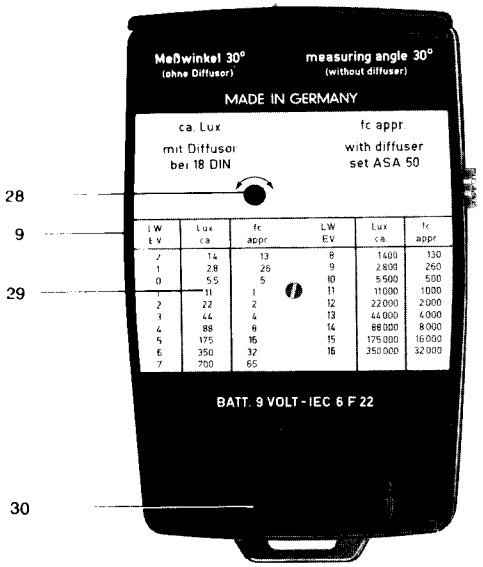
LUNASIX F

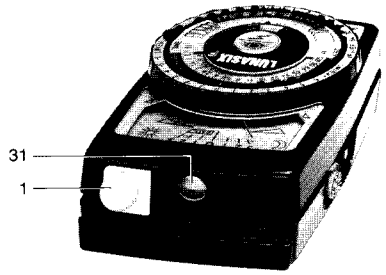
Contents page





1 Spherical diffuser (for incident light measurement)
2 Indicator scale
3 Zero adjustment line
4 Indicator needle
5 Rotation direction indicators
6 Measuring button (red)
7 Red triangles
8 Red arrow for flash readings
9 Button for battery test (green)
10 White index line for extension factor setting
11 Extension factors
12 Eyelet for neckstrap
13 EV (Exposure Value) modification scale (+ and –)
14 Reading dot for cinematographers (1/50 sec)
15 (White index line for EV modification setting
16 Sliding black cover for red signal
17 Exposure Time Scale
18 Aperture Scale (f-stops)
19 Cine Scale (frames per second)
20 Ribbed film speed setting disk
21 Index for DIN/ASA setting
22 Exposure Value (EV) scale
23 Setting ring for modified settings
24 Computer ring for setting indicator needle
25 White selector index for measurement duration
26 Square setting mark for single measurement with storage
27 Round setting mark for extended measurement cycle
28 Zero adjustment screw
29 Lux and Footcandle scale equivalents
30 Battery chamber
31 Light entry aperture
34 Division for zone system
36 Mode switch for continuous light or flash measurements





The LUNASIX F

is one of the high quality precision meters

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is manufacturing for the light measuring technique.

Your LUNASIX F is a very valuable meter, precisely manufactured and accurately calibrated. The built-in silicon photo diode (silicon blue cell) achieves an instant measuring response, even at extremely low light levels. Its superior filtration results in a spectral sensitivity of outstanding character.

The LUNASIX F will answer all questions which might arise concerning photographic exposure reliably and precisely. It will help you to determine the correct exposure data for photographs which will rank high above the average as to picture quality and creative composition. This instruction booklet will give you many valuable suggestions to assure you of getting consistantly good results.

Before you Start Measuring

Set the Film Speed

Turn the film setting disk (20) by its ribs until the DIN/ASA index number of your film is lined up with the white triangle (21) above the DIN/ASA scale window.

Make sure the black cover (16) conceals the red signal; the white index line (15) must be at the red "0", and the opposite white index line (10) at "1" (Standard Setting). You can rotate the inner setting ring (23) by its raised cleats or by the black cover (16) to adjust the setting (see page 8).

Test Zero Position

With the **(switched off)** meter in horizontal position, the indicator needle (4) should cover the short green line (3) as you look straight down. If necessary, adjust the indicator needle to the zero line by turning the zero adjustment screw (28) on the underside of the LUNASIX F. The LUNASIX F is switched off if the measuring button (6) was not depressed and if the storage time (see page 6) has expired. (To be perfectly certain, you may also remove the batteries.)

It is sufficient to make this test at prolonged intervals.

Testing and Replacing the Battery

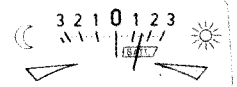
The LUNASIX F operates on a 9 V battery of the type IEC 6 F 22 or a rechargeable battery IEC 6 LF 22*. It is being supplied by us with a commercially available Alkaline battery.

It is advisable to check the condition of the battery from time to time: check the battery by pushing and releasing the red measuring button (6) and then pushing in and holding the green battery test button (9). The meter needle must be within the green battery test zone marked "BATT" or to the right of it. Otherwise, the battery must be replaced.

To replace the battery, remove the cover of the battery chamber (30) on the underside of the LUNASIX F by sliding it off in the direction of the arrows.

After inserting the fresh battery make the test described above.

Test zero position



Battery test

* these international standard designations correspond to the following brand names of batteries, (just some examples):

Mallory MN 1604 (Alkali)	Varta Super 438	or the rechargeable
Daimon no. 332	Novel 006 P (T)	battery Varta 4022 for
Daimon no. 333	Novel 006 P	which a reasonably priced
Mallory M 1604	Maxell S-006 P (G)	battery charger is available

The Measurement Method

The LUNASIX F permits precise measurements of exposures of continuous light and the light of electronic flash units. Before you start measuring select the desired mode, either continuous light or flashes by means of the mode selector switch (36). The two possible measurements reflected light and incident light are being described on the pages 19 to 21. The LUNASIX F is well suited for those two alternative measuring methods and this for flashes too.

For measurement of exposures of continuous light see page 14, for measurement of flash light see page 15.

The LUNASIX F furthermore provides the capability of programming for extension factors and exposure compensation factors to give you direct read-outs without further calculations on your part (see page 7).

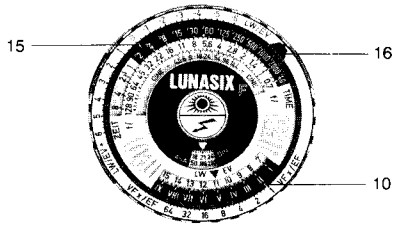
Standard Setting

Measuring with the Standard Setting means that the red signal field is concealed by the black cover (16) and the white selector index (25) on the measuring button (6) is set at the square setting mark (26).

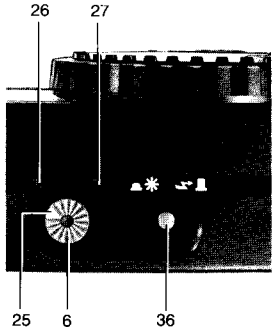
After the spherical diffuser (1) of the LUNASIX F has been set for the desired measuring method, depress the red measuring button (6). The LUNASIX F measures as long as this button is held down. When you release the button (6) the value measured (continuous light) at that moment will be automatically stored in the electronic memory of the LUNASIX F for approximately 30 sec.

At the end of the storage time the LUNASIX F switches off automatically and the indicator needle (4) returns to the green zero line (3). Your measured reading remains set on the scales as long as you do not move the computer ring (24).

If you want to make a new measurement before the 30 seconds cycle is ended, simply depress the red measuring button (6); this clears the electronic memory and the new measurement is stored when you release the measuring button.



6

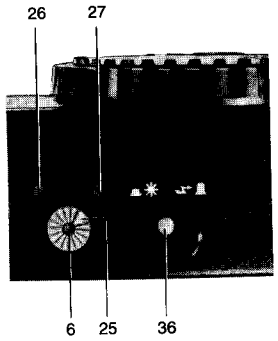


Extended Measurement

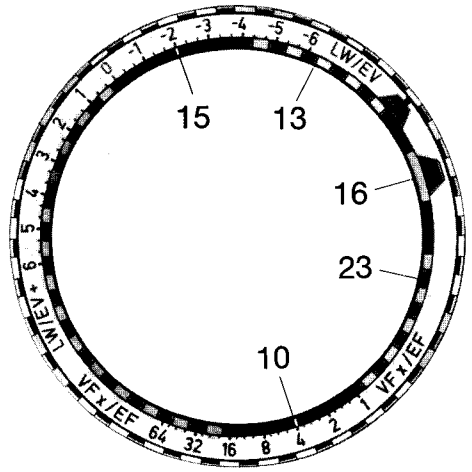
You can override the electronic storage to make measurements which require more measuring time (for example: extensive contrast measurements). For extended measuring, depress the red measuring button (6) and lock it in place by turning it so that the white selector index (25) is set at the round setting mark (27). Your LUNASIX F now indicates the consecutive values of various measurements without storage, and the meter does not switch off automatically. Naturally, this also puts a heavier load on the battery.

To end the extensive measuring mode, depress the measuring button (6) and turn it to the left so that its white index (25) is set at the square setting mark (26) again. The value measured at the moment of releasing the button will be stored for approximately 30 seconds, after which the LUNASIX F switches itself off.

Please don't forget – after completing extensive measurement – to turn the white index of the measuring button to the square setting mark (26) so that the LUNASIX F switches off after 30 seconds.



Modification of Standard Exposure



Specific modification of the standard exposure may be desirable or necessary for a number of different reasons, e.g. when using filters (filter factor or f/stop factors may be given), when using cameras with bellow extension, using extension rings, working with macro lenses, or to compensate for reciprocity failure (see page 25), or when using the zone system (page 24).

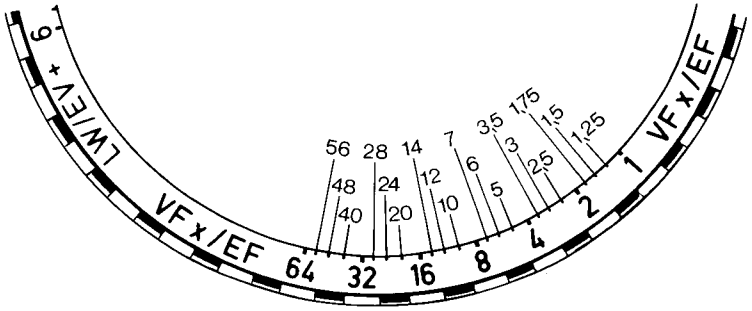
You can set the applicable exposure value differences accurately on the outer scales (11) and (13): While holding the computer ring (24) rotate the inner setting ring (23) until one of the two white index lines (10) or (15) is set to the desired value. With such a setting the red signal under the cover (16) becomes visible to indicate, at a glance, that an extension factor or exposure value modification has been set on the scales.

8

Extension Factors

The scale for extension factors (11) is logarithmic. Intermediate factors indicated by scale lines are listed in the illustration.

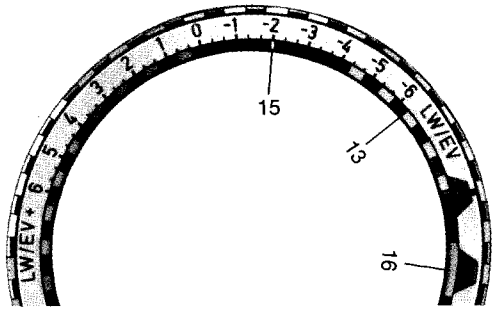
Example: You want to use a filter marked "4 x". Set the white index line (10) of scale (11) to "4", as shown in the illustration on page 9. The filter factor will now be considered automatically in your measurements with the LUNASIX F.



Exposure Value Modification

You can set an exposure value modification with the white index line (15) on the green scale (13).

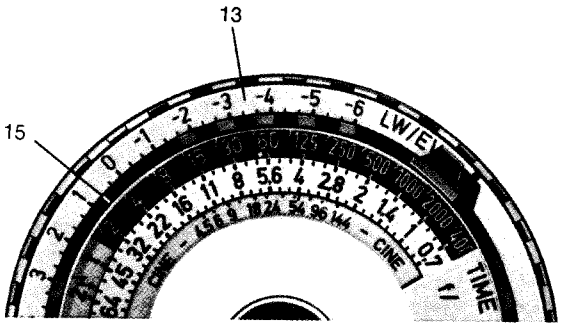
Example: If the filter is marked "–2EV" you set the white index line (15) of the green scale (13) to "–2". This factor will now be considered automatically.



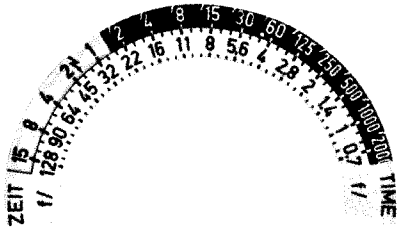
Modification of Exposure Times

In the event that exposure time tolerances of your camera, or the sensitivity of your film require shorter exposure, you can also set the applicable values on the green scale (13), by increasing the exposure value.

Example: You have determined that, for optimal results, 2/3 less exposure is required. Set the white index line (15) at "+2/3" (higher exposure value). This factor is then automatically considered when you read the exposure scales.



Reading the Scales



'2, '4, '8 are fractions of seconds.

Un-marked numerals 1, 2, 4 are full seconds.

1^m, 2^m, 4^m etc. are minutes.

1^h, 2^h, etc. are hours.

The un-numbered white dot between '30 and '60 is the reading point for cinematographers (1/50 sec).

CINE frames per second (intermediate values)

CINE f.p.s. and corresponding exposure times.

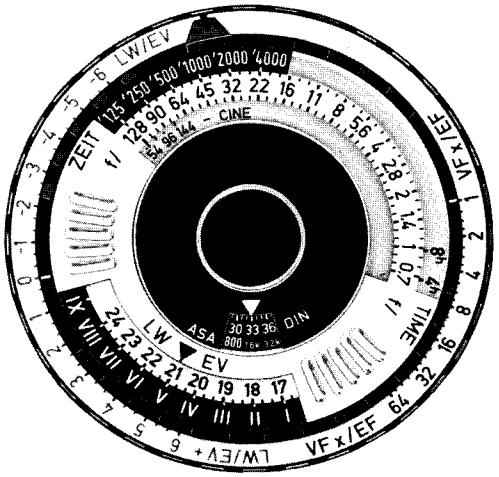
Note: On some motion picture cameras, the exposure time at 18 f.p.s. is not 1/36 second.

Please check instructions for your camera!

Extreme Film Sensitivities

When using exceptionally "fast" or "slow" films, the computer may, in extreme cases, show scale position as illustrated here. In these cases, exposure times are shown opposite small and large f-stops.

Here only the exposure times indicated in the upper half of the computer ring apply.



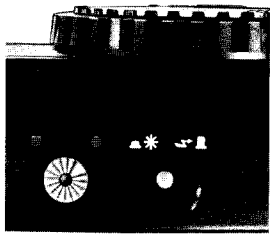
Measuring Continuous Light

Depress the mode switch (36) so that it is set for measuring continuous light (☼).

Rotate the computer ring (24) until the indicator needle (4) is precisely over the "0" null line. The rotation direction indicators (5) tell you in which direction the computer ring (24) must be rotated.

After nulling the needle the LUNASIX F gives you complete exposure information in combinations of f-stops and exposure times (scales 17 and 18) or – for motion picture cameras – f-stops (18) for a specific operating speed in frames per second (19) (please see also page 12).

mode switch (36)



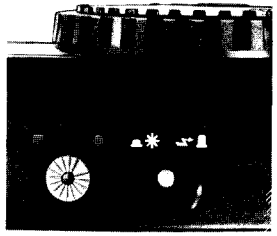
Measuring Flashes

When used as flashmeter the LUNASIX F measures the flash intensities of commercially available flash units. The measuring time for flash is 1/60 s. Both measuring methods – incident light measurement and reflected light measurement (see page 19 and the following ones) can be used. Even under difficult light conditions the proper f-stop to be used will be reliably indicated. Do not depress the mode switch (36), thus it is set to the measuring mode for flashes (↯). Should the switch already be depressed, press down further thus releasing it again.

Shortly before starting the actual measurement, press the red measuring button (6) in order to clear the electronic memory.

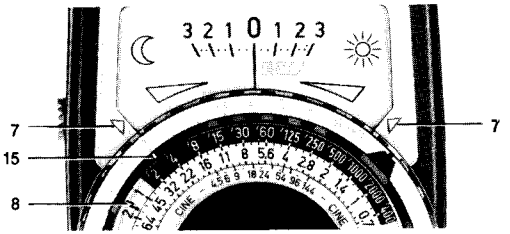
After having operated the flash or multiple flashes, rotate the computer ring (24) until the indicator needle (4) is exactly over the "0" null line. Next read the proper f-stop opposite the red flash indicator ↯ (8) on scale (18), provided the red "0" on scale (13) will be between the two red triangles (7) on the meter face. If the red zero mark goes beyond either of the red triangles, the flash intensity is beyond the range of the meter. In that case refer to the following page "measuring range".

mode switch (36)

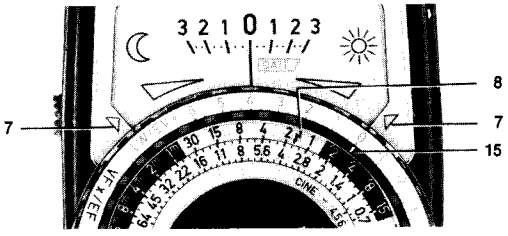


Measuring Range

Accurate readings can be made in the range of 28.8 lxs to 7360 lxs or 1.2 to 305 cds/m². For a film speed setting of 21 DIN you can read e. g. f/stops from 2.8 + 2/3 to 45 + 2/3 at the flash indicator mark ↯ (8). This range is limited by the red triangular marks (7) on the meter face. After measuring and nulling the indicator needle on scale (2) the red zero mark (13) must remain between the two red triangles (7), otherwise the reading is not usable.



Upper limit of measuring range



Lower Limit of measuring range

If the red zero mark is outside that range, the f/stop opposite the flash indicator mark ↯ (8) must not be used. When past the right triangle the light level of the flash is too low. When past the left triangle, the light level of the flash is too high.