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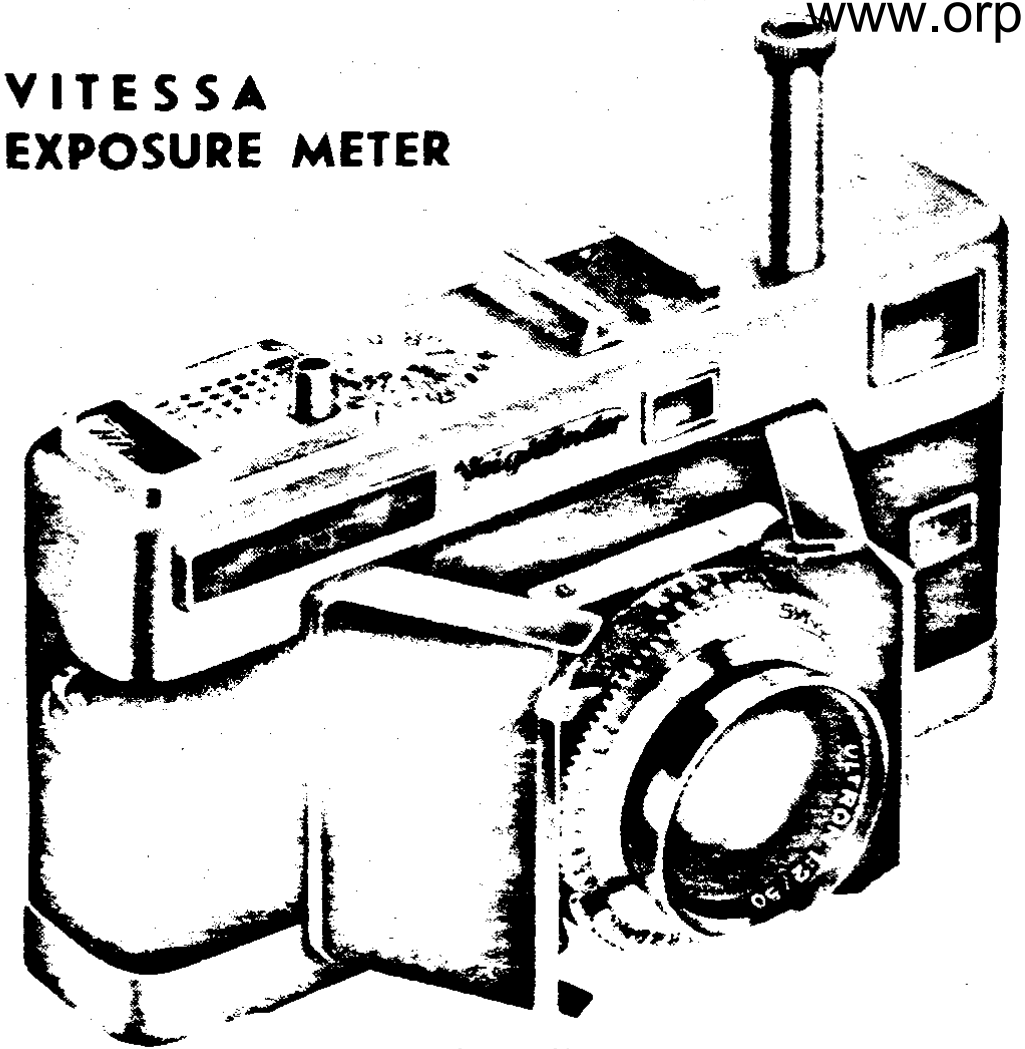
Voigtländer

How to Use the VITESSA EXPOSURE METER

VITESSA
EXPOSURE METER

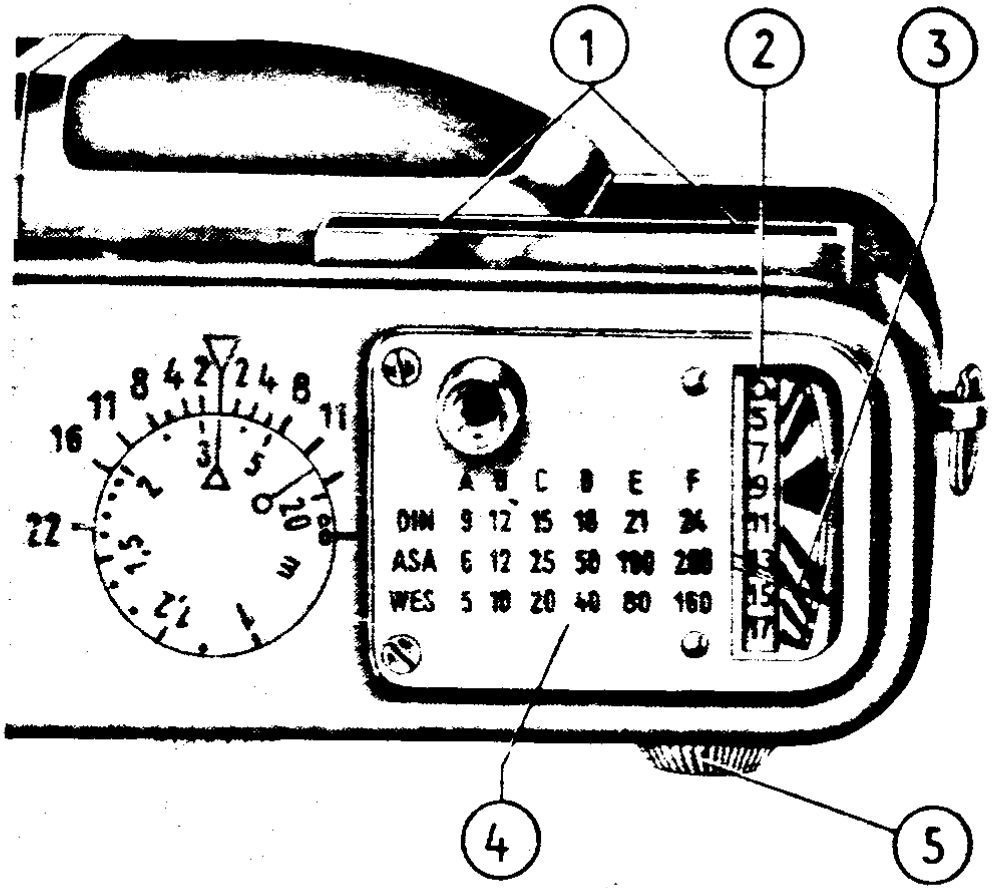


The VITESSA photo-electric exposure meter is designed by the world-famous specialist firm BERTRAM of Munich who can look back on more than 30 years' experience in the manufacture of fine precision measuring instruments.

Its operation is outstandingly simple. A glance from above clearly shows the correct light value figure for your photograph. One movement of the aperture lever of the camera transfers the figure to the Synchro-Compur L shutter, providing the correct shutter speed-aperture combination.

Safely protected against shocks by a system of springs, the VITESSA exposure meter covers a large brigthness range and has considerable threshold sensitivity.

A grid system limits the angle of acceptance of the photocell to the angle of view of the camera lens. No lid or other cover is necessary since even under constant exposure to light the sensitivity of the selenium cell remains absolutely constant.



① **Photocell window**

② **Drum with light values**

③ **Sector scale and pointer**

④ **Film speed table**

⑤ **Setting knob for drum**

Setting the Film Speed

First find the speed of your film in the table 4 on the exposure meter. The vertical columns of this table each carry a letter at the top; for instance, a film of 18 10° DIN will be in the "D" column. Then turn the setting wheel 5 of the drum until the corresponding letter appears above the numbers on the drum 2.

If the speed of your film is between the values shown in the table 4, you will find by looking at the table on this page that each letter actually includes three film speeds. If your film speed is, say, 40 or 64 ASA, you still set the drum to the letter D.

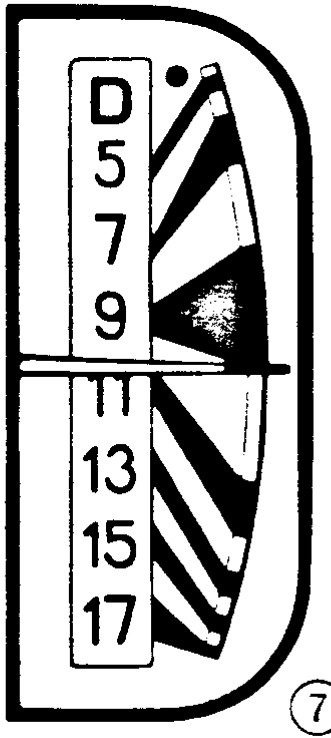
Comparative Table of Film Speeds

Group	A	B	C	D	E	F
DIN /10°	8 **9** 10	11 **12** 13	14 **15** 16	17 **18** 19	20 **21** 22	23 **24** 25
ASA	4 **6** 8	10 **12** 16	20 **25** 32	40 **50** 64	80 **100** 125	160 **200** 250
Weston	4 **5** 6	8 **10** 13	16 **20** 24	32 **40** 50	64 **80** 100	125 **160** 200
Scheiner	19 **20** 21	22 **23** 24	25 **26** 27	28 **29** 30	31 **32** 33	34 **35** 36
H & D	100 **125** 150	200 **250** 300	400 **500** 600	800 **1000** 1250	1600 **2000** 2500	3200 **4000** 5000
General Electric	6 **8** 10	12 **16** 20	25 **32** 40	50 **64** 80	100 **125** 160	200 **250** 300

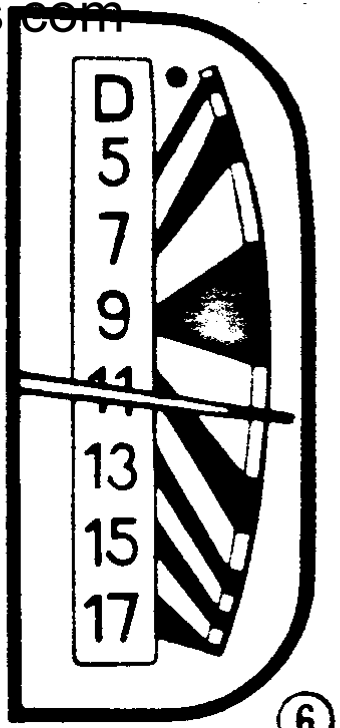
Taking the Reading

When taking a reading (see following pages) the **red tip of the pointer** points to either a black or a white sector on the scale ⑥. Now the left-hand end of the sector (**not** of the pointer) indicates the correct light value figure on the drum.

Note: The light value numbers on the drum correspond to the black sectors on the scale; the intermediate numbers not marked on the drum correspond to the white sectors. If the pointer indicates an intermediate value ⑦, use an in-between setting for correct exposure, the reading of the example ⑦ being 9½.



⑦



⑥

Setting the Shutter

Set the light value number found on the camera shutter as described in the VITESSA instruction book, but note:

- If your reading gave you a whole light value number, for instance 10 ⑥, then you should set the red dot on the aperture lever exactly opposite the same number.
- If your reading was 9½ ⑦ you should set the red dot on the aperture lever between the numbers 9 and 10.

Practical Hints

It is usually sufficient to point the exposure meter at the subject from the camera position. Here the meter measures the light reflected by the subject.

This method is suitable for most average subjects, i. e. those which show no extreme contrasts of light and dark or which are not placed before a very dark or very bright background.

Two basic rules should always be remembered:

- The photocell window must be kept clear and not even partly obscured by your finger, and
- strong reflections from the sun, lamps, the surface of water, etc., must not be allowed to fall on the photocell since they would lead to a wrong reading.

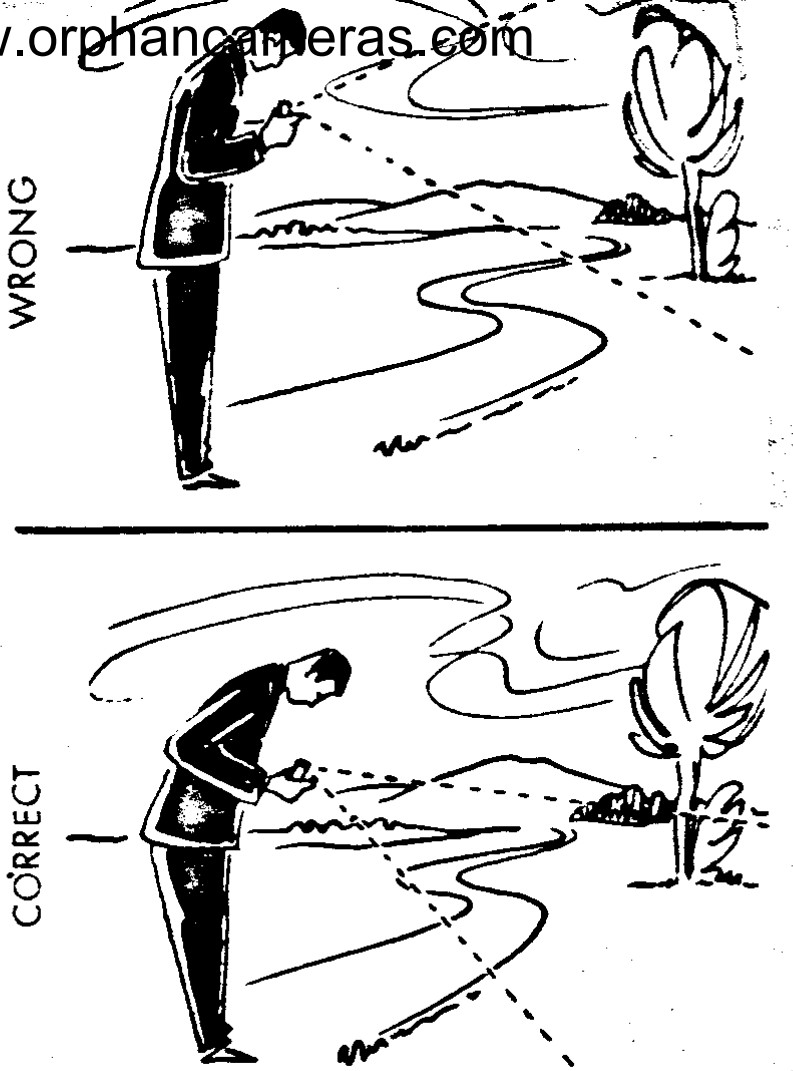
Also, if a filter is used, the filter factor makes it necessary to correct the light value number found according to the table below:

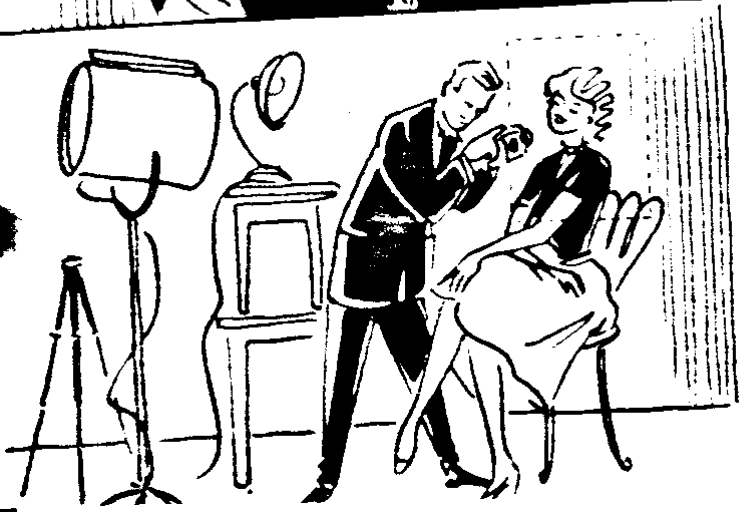
Filter	Filter Factor	Correction
Yellow filter G 1.5	1.5	deduct ½ number
Yellow filter G 3	3	deduct 1½ numbers
Green filter Gr	4	deduct 2 numbers
Orange filter Or	5	deduct 2½ numbers

Out of doors, particularly in an open landscape, the sky almost always comes into the picture, and therefore also into the angle of acceptance of the exposure meter. But since the bright expanse of sky radiates much more light than the subject itself (landscape, buildings, animals) the light from the sky should be excluded for the reading by pointing the camera slightly downwards as shown in the illustration.

Now the meter cannot be influenced by the sky and gives you the correct reading for the important foreground subject.

Exceptions are: photographs of fine cloudscapes when people, buildings, or details of the landscape can be allowed to appear as silhouettes; and snow, beach, and seascapes. But photographs of people in snow or on the beach **always** need a close-up reading (see next page).





In some cases a correct result can only be obtained with a close-up reading. For instance,

- when the subjects or its surroundings show great brightness contrasts, or
- with bright subjects in front of a dark background (top ill.) or vice versa, and
- as a matter of principle always for portraits, close-ups of small objects and animals, and all artificial light photographs, whether portraits, still life, or other subjects (bottom ill.).

The brightness **range** should in these cases be read only of those parts of the subject which are important for the picture.

For close-up readings approach the subject **so** closely that the photocell accepts only light reflected from selected parts of the subject itself, but take care not to darken them with the shadow from your own body, your hand, or your camera.

A Golden Rule For Close-up Readings: The distance from exposure meter to any important part of the subject should not be greater than the width of that subject area.

Close-up readings are advisable also for **against-the-light** shots which always show a particularly wide contrast range from the darkest to the lightest parts of the picture. The effect of the final picture can be varied to suit the subject by taking a reading from either the light or the dark parts of the subject.

Almost always shaded parts of the subject are important. For instance, in an indoor photograph taken towards the window it is the light inside the room that determines the exposure. On the other hand, if the photograph is to show a sunny landscape taken through the window with the window frame merely forming a dark surround for the main subject outside, you should approach the window until the pointer of the exposure meter will not go any higher. In this way any overexposure of the landscape is avoided.

When it is not possible to approach the subject closely enough and you have to take a reading from the taking position, the reading will have to be corrected. When there is great contrast in a photograph taken against the light and the shadows are to show detail, the light value number given by the meter has to be reduced by two, and when the contrast is not so great, by one light value number. If the meter reading is used without correction the result is a silhouette without any shadow detail.

Colour Pictures

The light-sensitive photocell of the VITESSA exposure meter is adjusted for the primary colours and thus gives a correct reading of colour values. You can therefore take readings for colour pictures in the same way as for black-and-white ones. But you should remember that reversal colour film has very little latitude and needs very exact determination of the light value.

If you wish to be absolutely certain of your exposures and prefer to take some comparative trial shots before using a colour film on an important subject, we recommend the following procedure: Take one shot using the light value indicated by the meter and then, take one shot each with half a light value and one whole light value more and half a light value and one whole light value less. Naturally all shots must be of the same subject, from the same position, and with the same lighting.

Overexposure of reversal colour film produces a transparency that is too light all over but can usually still be used. Underexposure causes the transparency to be too dark. Preferably judge the transparency by actually projecting it.

Practical Hints for Colour

- The best subjects are those with big colour areas without very great differences of brightness.
- People should always be positioned before a quiet, neutral, background from which they stand out well; outdoor portraits succed best under a slightly veiled sun.
- Landscapes need a colourful and striking foreground wherever possible. In high mountain regions and by the seaside use the UV ultra-violet filter which cuts out any unpleasant overall blue colour casts.
- In the early morning and late evening the colour of sunlight is orange. Subjects which are illuminated only by light from a blue sky (open shadow) show a slight blue colour cast.
- You can lighten the shadows of daylight colour photographs with white reflector screens, blue flash bulbs, or electronic flash. Mixed light (tungsten lamps with daylight) produces uneven colour rendering.
- Close-ups of small objects, insects, animals, etc. taken with the Focar lenses or the Proximeter make particularly good subjects for colour.