

1. Control panel and sensor

Digital time display red digits, 3 digits, up to 99.9 s in tenths of a second. Overriding values are displayed in full seconds. The running number of a stored value appears in green single digit before the time display.

2. Slide switch for selection of function and time range

Position M Measure

20 s Time range 0.2-20 seconds in steps of 0.1 seconds

100 s time range 1-100 seconds in steps of 0.5 seconds

400 s time range 4 -400 seconds in increments of 2 seconds

3. Adjusting the exposure timer

4. Calibration knob for calibrating the measurement

5. Memory key

When used as a monitor timer,

to store a sequence of different exposure times. Storing the gemesgéné value. Optionally, the memory key 10 on the sensor can also be used for this purpose.

6. Average key

Pressing this key displays the mean value calculated from the previously saved measurements.

7. Clear key

8. Index key is used to determine but also to reset an index number

9. Start, stop and continuous light button Press-release the exposure time Press during the stop time. Exposure is interrupted and can be resumed by pressing the button again. Flip up the button.

10. The memory button on the sensor can be used as an alternative to the memory button on the device.

11. LED indicator light This LED indicates that the measurement is saved.

12. Measuring cell blue-cell Si diode 5mm

13. Main switch

14. Area switch ... rozsah

15. Connection for small laboratory lamp

Use as exposure clock

Selecting the exposure time With the slide switch, the time range in which the desired time should lie is preselected:

20 s Setting accuracy 0.1 s

100 s Setting accuracy 0.5 s

400 s Setting accuracy 2 s

The rotary knob is now used to set the time. Time is set. The larger the desired time value, the farther the knob is to be turned clockwise. The set exposure time is displayed digitally. Not always you will be able to set the desired time immediately exactly. This is not a device error but due to the system's analog setting by means of a rotary knob.

This is like a clock, except that there is not the slight difference, but here it is displayed digitally. You can now accept this deviation as negligible or rotate it until the desired time is displayed. That may cost you a little bit of time, but then you have it exactly.

Triggering the exposure time by pressing the start button

In the display field, the time is counted down to zero in tenths of a second, at times 100 s in full seconds, and then jumps back to the set value. Once a set time can be repeated as often as you like.

Time interruption

If the start button is pressed during the timeout, it acts as a stop button. The time is stopped, the exposure is interrupted. When the button is pressed again, timing and exposure will continue.

Continuous light

by raising the start button.

Storing a sequence of different long exposure times.

For example, for a sample strip or for retention after re-exposure, but also for additive filtering.

Example: 3-5-7.5-9 s

Fold up start key, set time 3 s, press memory key SP, the display shows red digit 3, d. H. 3 s, and green digit 2, d. H. now the second time can be saved.

Set time 5 s, press memory key SP, the display shows red digit 5, d. H. 5 s, and the green digit 3, d. H. now the third time can be stored.

Set time 7.5 s, press memory button SP, etc\*

It can be stored up to 8 times. Important: Please do not save more than 8 times; when trying to overstore completely Unreal values which are only desired by brief shuttering. If an exposure time deviating from the calculated mean value is desired, the slide switch is moved from the measuring position to the corresponding time range and the desired time is set using the rotary knob. As a result, of course, the stored mean value is automatically resolved.

Effect of the Delete key

Pressing the C / Ce key once clears the last stored value of the single measurement, pressing it twice clears all stored values. Press the delete key during the timeout:

Press once. Exposure time is canceled, but remains for repetitions

press twice. Exposure time is canceled, all stored values are deleted.

Calibration of the measuring cell in multipoint measurement

Prepare test strips and set the optimal exposure time, e.g. 8 s. Now in the part of the negative from which the sample was taken, measured and stored:

the brightest point still drawn through z. B. 1.9 s, SP button

the darkest point still drawn through, z. B. 72.3 s, SP key

Pressing the m / log key displays a mean value of 11.7 s.

With the probe, a point is now searched in the negative, in which 11.7 s is displayed as the measured value. But you can also leave the probe at any point of the negative and cause by Blendenver position that the measured value of 11.7 s is displayed. Of course, in such a case after the calibration process, the old working aperture must be set again. The index knob is then adjusted until the time of 8s (the optimal shutter speed) is displayed instead of the 11.7s.

Press the Index key, the display will show the index number that applies to the paper used for multipoint measurement. Note index number on paper packaging.

In the same way, the index number is also determined for the one-point measurement method. It is then instead of the average value of only one measured value, brightest or darkest point still drawn through.

#### Setting the index number

While holding down the index key, move the index knob up or down until the desired index number appears in the display.

#### Shifting the measuring range

If the range of rotation of the index knob is insufficient when setting the unit in order to set the optimum exposure time, the range switch can be used to shift the measuring range. This sometimes becomes necessary when using highly sensitive materials such as Agfachrome Speed.

Switch position I normal

Switch position II Extended range, corresponds approximately to a 2-step aperture.

Important: The range selector must always be in the same position when measuring as when calibrating. Therefore, in addition to the index number, the switch position I or II should always be noted on the paper packaging.

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... of the device can be deleted again, so that also the complete previous storage is deleted.

#### How the C / Ce Cancel Button Works

##### For Single Exposure

You can not clear a set single exposure by pressing the C / Ce button. The time value always appears here in the display field, which results from the respective position of the setting knob. Pressing the delete key is not effective here and is also unnecessary, to change the time so only the knob needs to be rotated. If the C / C key is pressed during the timeout, the shutter speed will be canceled and the set time will reappear. In a sequence of different exposure times Pressing the C / Ce button twice deletes the entire exposure bracketing. The time that results from the position of the adjusting knob is then displayed.

#### Use as an exposure machine

Make sure that the probe is correctly connected to the clock. Incidentally, it can remain permanently infected, as well as being used as an exposure clock. Set the slide switch to position M ", switch on the continuous light by raising the start button.

#### One-point measurement

The sensor is placed on the image projected by the magnifier in such a way that the measuring cell picks up the brightest point of the image that is still traced. The amount of light absorbed is converted to the most favorable exposure time after a short recording time and displayed as time in seconds.

approx. 0.1 s Measuring time bel 100 mlx 100 mlx approx. 1 s

The expiry of the measuring recording time can be recognized by the green LED in the sensor. When it lights up, the measurement is accepted and saved. Now you can release the memory key. The stored value is displayed as the exposure time and can be triggered by pressing the start button. This time can then be repeated as often as desired.

Attention: If the probe is taken out of the picture while the start button is still high, ie with continuous light, it measures any values according to the light that it is exposed to, and this value also appears in the display field, possibly. If the probe is in complete darkness or normal light is turned on, the sign will be irrelevant to the stored value and as soon as the steady light is switched off, the display will flash in on the start button.

#### Multi -Measurements

The same procedure as for point measurement, but several points up to 9 are measured, the measured values are memorized by keystroke. Also observe the extended measuring recording time at low light intensities.

By pressing the key  $m / \log$  or underneath the start key the logarithmic mean value is calculated of all measurements and displayed as exposure time. If the  $m / \log$  key is pressed or the start key is raised again, the display shows the single value resulting from the current position of the sensor. Now, as far as the possible number is not reached, further measurements can be saved, which then possibly changes the previously indicated average value.

\*After the start button has been folded down, 000 appears in the display. By pressing the SP button repeatedly, each of the stored times can now be selected and repeated as often as required.