

# TERRA-P

## HOUSEHOLD DOSIMETER

**QUICK START**



MKS-05 dosimeter-radiometer

**Use the MODE and THRESHOLD buttons to operate the dosimeter**

### Switching on the dosimeter

Press the MODE button and hold it pressed for one second. The dosimeter will automatically enter the mode of gamma dose rate measurement, which is indicated by units of measure expressed in "μSv/h" that appear on the display, and short-term audio signals following the registered gamma quanta.



### Switching off the dosimeter

To switch off the dosimeter, press the MODE button and hold it pressed for 4 seconds.

### Measuring gamma dose rate

Place the dosimeter with the „+“ symbol on its rear cover above the surface you want to examine. The frequency of audio signals indicates the radiation level (each audio signal refers to a registered gamma quantum).

The LCD will start showing rough measurement results in 10 seconds. Consider the value after the digits on the LCD stop blinking as the accurate measurement result.

If a radiation level changes significantly, the digits on the display will start blinking again. This means that the dosimeter determines a new mean value. As soon as the digits stop blinking, more accurate results will appear.



**! Permissible radiation background is shown on the dosimeter's back cover.**

### Note

The process of data averaging can be stopped forcibly to provide effective evaluation of the gamma radiation level. To do this, change the object of examination and press shortly the THRESHOLD button.

Rough evaluation of gamma background level of every new object can be performed within 10 seconds.

### Switching on/off audio signaling of registered gamma quanta

With the THRESHOLD button pressed and still held in the mode of gamma dose rate measurement, enter the mode of programming alarm threshold levels. The "0.30" symbol with a blinking last zero will appear on the display at that.

Press shortly the MODE button and look through all values until the sound symbol starts blinking.



For switching off audio signaling of registered gamma quanta, press shortly the THRESHOLD button to turn off the sound symbol.

To switch on audio signaling of registered gamma quanta, enter the mode of programming alarm threshold levels again, and then press the THRESHOLD button to enable the sound symbol.

Short press of the MODE button fixes a new setting, which is indicated by fourfold extinction of the display.



### Evaluation of beta radiation

Enter the mode of gamma dose rate measurement. Direct the dosimeter with its back side to the examined surface.

To evaluate contamination by beta radionuclides, perform two measurements: the first one with a closed cover labeled with the „+“ symbol; the second one with an open cover (for accurate evaluation the second measurement should be done after the digits on the display has stopped blinking).

Consider the difference between the first and the second measurements as the result of measurement.

The absence of beta radiation is indicated by similar results obtained from the first and the second measurements.



### Accumulated gamma dose

To get the total dose of gamma radiation, accumulated from the moment the dosimeter is on, press the MODE button.

The unit of measure "mSv" will appear at that. Remember that in order to ensure accurate results, keep your dosimeter with you always switched on.

To reset the dosimeter readings, switch it off.



### Clock

Once the dosimeter is on, press the MODE button twice (or press once after the mode of accumulated gamma dose). A double point between the two pairs of digits that blink with 1 s interval should appear on the LCD.

#### Correction of clock settings:

- 1 Press the THRESHOLD button and hold it pressed until the value of minutes starts blinking.
- 2 To set the value of minutes, first release and then again press the THRESHOLD button and hold it pressed until the proper value appears.
- 3 Press the MODE button to set the value of hours. Repeat step 2.
- 4 Press the MODE button to fix the detector's clock settings.
- 5 Press the MODE button twice to enter the mode of gamma dose rate measurement.



### Alarm clock

This mode follows the clock mode. Press shortly the MODE button. A non-blinking double point between the two pairs of digits will appear on the LCD.

Set the alarm clock the same way as you set the clock.

After setting the values of hours/minutes, press the MODE button to switch on/off the audio signal of the alarm clock. Use the THRESHOLD button to fix or turn off the sound symbol. After that, press the MODE button to fix the alarm clock settings. The dosimeter will send the signal in portions of three high-frequency sounds during a minute.

The alarm clock will ring even if the dosimeter is switched off.



### Note

Press any control button to switch off the audio signal of the alarm clock after its actuation. Otherwise, the audio signal will be disabled automatically in a minute after the alarm clock rings.

### Maintenance recommendations

Do not let the dosimeter become absolutely dirty. Use a soft, dry cloth to clean its body.

If operating in a dusty environment or during atmospheric precipitations, the dosimeter should be placed into a plastic bag or a special case.

Remove the batteries if the dosimeter is not in use for a long time.

Warranty is void in case of:

- any mechanical or thermal damage,
- the body opened and any internal changes are made,
- the warranty stamps are violated,
- any liquid remains.

For more information about the TERRA-P dosimeter, refer to the operating manual of this device.

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