



Radiation monitor RADEX RD1706

We'd like to call your attention to our new elaboration RADEX RD1706 in the family of RADEX radiation monitors. The device can be used not only by the population in day-to-day life but by the personnel operating with ionizing radiation sources as well.

The time from the moment of release of the radiation monitor RADEX RD1503 and RD1503+ has demonstrate that some consumers wish to have the indicator of radio-activity with a reduced time of observation, expanded range of indications, better precision of indications and ability to register x-ray radiation. All these requests are summarize and implemented in RADEX RD1706 model. This device has retained «BACKGROUND» mode used in RD1503 + which is very convenient for performing inspections inside buildings and purchasing building materials; vibra signal having a good account is also retained as the additional feature of the alarm system.

There are two SBM20-1 type Gejgera – Muller counters of hard beta and gamma radiations in RADEX RD1706, which technical characteristics can be observed here. It allows to reduce the time of observation from 40 till 26 seconds and to improve precision of indications. The range of indications is essentially expanded (100 times in comparison with RADEX RD1503); RD1706 can register the value of a doze rate till 999,0 $\mu\text{Sv/h}$, thus time of observation smoothly reduced from 26 to 1 second what is necessary for the stuff operating with ionizing radiation sources.

Everything that has been approved by users is retained in RADEX RD1706, i.e. the usual frame with a large LCD, three buttons and individual settings like various threshold signal actuation, indications on battery charge, display backlighting.

It is possible to familiarize yourself in details with the device operation below by means of using a flash-model of the device or by reading "Operation manual".

Flash-model

Attention!

The time of observation is reduced by factor of 5.

Improvements of RADEX RD1706 comparing to the basic model RADEX RD1503

- ability to register gamma, beta and x-ray radiation;
- expanded range of indications (up to 999,0 $\mu\text{Sv/h}$);
- time of observation is reduced from 1 to 26 sec.;
- time of observation gradually reduces from 26 to 1 sec. when the value of a dose rate is higher than 3,5 $\mu\text{Sv/h}$;
- improved precision of indications;
- the ability to set threshold level indications up to 99,0 $\mu\text{Sv/h}$ (100 times in comparison with RADEX RD1503);
- «BACKGROUND» mode for performing inspections inside premises using algorithm similar to methodical instructions [MY 2.6.1.715-98](#) Conducting a radiationally-hygienic inspection of inhabited and public buildings;
- displaying the value of a background dose rate;
- displaying the difference in indications between the average dose rate and a background dose rate;
- value of a background dose rate is saved after turning off the device;
- displaying an average dose rate exceeding over a background dose rate;
- vibra-call signal as the additional alarming function;

- possibility to regulate a vibra signal (turning on/off);

According to a wholesale buyers' request at the order of more than 500 devices of RADEX RD1706 it is possible to:

- Add to the memory information on the wholesale buyer's shop and his address on the Internet.
- Change the language and the text of commands in the manual for adapting to the language of customers.



Certificate

Technical and work specifications

RADEX RD1706 evaluates the ambient equivalent of dose rate $H^*(10)$ of gamma radiation with taking into account gamma radiation and the pollution of objects by sources of beta particles.

The device can be used by the population in day-to-day life (foodstuff, building materials, soil etc.) and by the personnel operating with ionizing radiation sources.

RADEX RD1706 evaluates the value of beta and gamma radiation by the means of two SBM20-1 type Gejgera – Muller counters and displays the indications in $\mu\text{Sv/h}$ on LCD. The time of observation a dose rate and varies from 40 to 26 seconds.

Registration of every particle is accompanied with a sound signal what makes it easier to search for the source of radiation.

The device possesses «BACKGROUND» mode which gives not just one but two indications. One stands for exceeding of a dose rate over a background dose rate, the second stands for a background dose rate. This mode is convenient for examining inside buildings, when it is necessary to know how indications indoors differ from the ones outdoors.

The device possesses next features:

- specification of indications in proportion of increase of monitoring time,
- turning on/off display backlight,
- turning on/off audio and vibra signals.

MENU titles can be translated in the language of the customer

Technical specifications

Range of ambient equivalent of dose rate indications $H^*(10)$	$\mu\text{Sv/h}$	from 0.05 to 999.0
Range of registered gamma radiation energy	MeV	from 0,1 to 1,25
Range of registered X-ray radiation energy	MeV	from 0,03 to 3,0
Range of registered beta radiation energy	MeV	from 0,25 to 3,5

Reproducibility of indications (at confidential probability 0.95) where P is a doze rate in $\mu\text{Sv/h}$	%	7+6/P
Threshold levels	$\mu\text{Sv/h}$	from 0.1 to 99,0
Time of calculation	seconds	from 26 to 1*
Time of indication	-	continuously
Power elements, size «AAA»	pieces	one or two
Time of continuous work of the device, not less than	hours	500**
Overall dimensions height x breadth x depth not more than	mm	105x60x26
Weight (without power elements) not more than	kg	0,09

- * 1) Period of observation shortens with the increase of a dose rate more than 3,0 $\mu\text{Sv/h}$.
- 2) The increase in the number of performed cycles improves the reliability of indications.

- ** 1) On the basis of manufactures settings, background dose rate not higher than 0,3 $\mu\text{Sv/h}$ and two batteries with a capacity of 1350 mAh.
- 2) The device can operate with one power element «AAA» type (but the time of continuous operating reduces).

