

Field scintillation radiometer SRP-20



Areas of SRP-20 application:

- Radioactive ores search by gamma radiation
- Radiometric surveying of the terrain
- Radiometric testing of quarries and mine openings
- Detection of radioactive contamination zones
- Gamma-ray logging

Main features:

- Fast detection of gamma anomalies
- High sensitivity of measurements
- Portability and ease of use
- Arrow and sound indication
- Integration time adjustment

SRP-20 is the most advanced version of previously popular radiometers SRP-68 and SRP-97 and their analogue in terms of functional use and application domain.

SRP-20, alike previous versions, is a scintillation radiometer and is designed to search for radioactive ores based on their gamma radiation, radiometric surveying of the terrain, radiometric testing of quarries and mine openings and detection of radioactively contaminated zones. The pedestrian and logging (analogues SRP-97K and SRP-68-02/03) versions are commercially available, which differ in the design of the detection unit case with identical metrological characteristics. Due to the presence of Bluetooth and USB interfaces, data can be transferred to a PC in real time. It is also possible to increase the time integration window in order to obtain stable data on anomalies that are close to background values.

Distinctive features of SRP-20:

- Designed to work in the field
- Capability to adjust the time integration window
- Built-in Bluetooth and USB
- Capability to visualize data on a PC
- Sealed detection unit for pedestrian version can be used in shallow boreholes or for underwater objects surveying
- Unified console for operation with logging and pedestrian detection unit

Package contents:

- Pedestrian detection unit
- Measuring console
- Battery (built-in)
- Charger
- Headphones Koss Porta Pro
- Control source (Co-60) in a container
- Rugged Case

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|---|---|
| measurement range of exposure dose rate of gamma radiation | 0 ÷ 3 000 mcR/h |
| Fundamental error of measurement of exposure dose rate of gamma radiation of ²²⁶ Ra radionuclide | no more than ±15% (not standardized in the measurement subrange 30 mcR/h) |
| Measurement range of the average count rate of recorded gamma | 0 ÷ 10 000 s ⁻¹ |
| Fundamental error of measurement of average count rate of recorded gamma | no more than ±10% |
| Energy range of detecting gamma | 35 ÷ 3 000 keV |
| Variation limit of averaging window | 1 ÷ 20 s |
| Setting time of operating mode | no more than 1 min |

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|---------------------------------------|---------------------------------------|
| Power supply voltage | 12.5 ± 2 V |
| Average power | 0.8 W |
| Life time of power supply | no less than 30 h |
| Operating temperature range | -40 ÷ +50 °C |
| - detection unit | 56 × 155 × 480 mm |
| - measuring console with power supply | 1190 × 90 × 145 mm |
| Interfaces | USB, Bluetooth |
| - detection unit | - detection unit |
| 1.3 kg | 1.3 kg |
| - measuring console with power supply | - measuring console with power supply |





