

MINITRACE γ

Gamma dose rate meter

MINITRACE γ

- Fast response time (1 sec.)
- Four settable alarm thresholds
- Long battery lifetime: 2 000 h
- Robust housing
- Infrared Interface
- PTB tested version (S100S / S100R)
- Internal storage for 650 dose rate values and dose
- Also available as radio version with transmission up to 20 km / 12.5 mi (versions S10R / S100R)



MiniTRACE γ is a dose rate meter designed to improve the safety of workers in control areas of nuclear power plants, reprocessing facilities, research centers and hospitals. It can likewise offer strong benefits to public bodies like the police, fire brigades, first responders, health officers and radiation protection inspectors. Its robustness and simple use make it easy to measure the gamma dose rate (ambient dose equivalent rate (H*(10)) or exposure rate). Electricité de France selected MiniTRACE γ for the measurements in their nuclear power plants.

Four alarm thresholds are pre-programmed and can be changed by the user via Communication Kit (DataVIEW/-PRO, IR-transceiver). The mean value mode can be started by pressing a button.

MiniTRACE γ is equipped with batteries ensuring extra-long operation time (2 000 hours at < 0.1 mSv/h (10 mR/h)). Its 6-digit illuminated display shows the measurement value with a fix decimal point. In an additional alphanumeric segment consisting of 5-digits, alarms and instrument quality events are displayed. MiniTRACE is equipped with an internal memory and enables storing of up to 650 measurement values as well as the accumulated dose, optionally GPS available.

The radio versions MiniTRACE γ S10R and S100R are equipped with a UHF transmission module. The radio system can be completed with SkyLINK (up to 20 km / 12,5 mi) or ShortLINK (up to 2 km / 1,25 mi) and the powerful software DataEXPERT.

FEATURES

- Fast response time (1 sec.)
- Additional "mean value mode"
- Long battery lifetime (2 000 hours)
- 6-digit illuminated display
- Four settable alarm thresholds; visual and audible alarm output
- Infrared interface
- Audible pulse output
- Calibrated according to international standards
- Internal storage, optional: GPS, radio (SkyLINK / ShortLINK)

APPLICATIONS

- Radiological control areas such as in nuclear power plants or reprocessing facilities
- Research centers, industrial X-ray applications, hospitals
- Police, fire brigades and first responders
- Schools, universities, educational purposes
- Search for depleted and enriched uranium, radioactive material, fission products
- Also suitable to determine the gamma background during radon measurement

CHARACTERISTICS

| | MiniTRACE γ S10S / S10R | MiniTRACE γ S100S / S100R |
|---|--|--|
| • Display unit: | $\mu\text{Sv/h}$, H*(10), opt. Roentgen (version: R1S / R1R) | mSv/h, H*(10), on request Roentgen |
| • Measurement range dose rate: | 0.01 $\mu\text{Sv/h}$... 10 mSv/h (0.001 ... 999.000 mR/h) | 0.01 $\mu\text{Sv/h}$... 100 mSv/h |
| • Measurement range dose rate according to IEC60846: | 0.5 $\mu\text{Sv/h}$... 10 mSv/h (50 $\mu\text{R/h}$ to 1 R/h) | 1 $\mu\text{Sv/h}$... 100 mSv/h |
| • Autoscale function: | No | Yes |
| • Energy range: | 42 keV ... 1.8 MeV \pm 40 % 2 MeV ... 2.8 MeV \pm 60 % | 48 keV ... 2 MeV \pm 40 %, 2 MeV ... 3 MeV \pm 60 % |
| • Sensitivity: | 5 500 counts per μSv (per 100 $\mu\text{R/h}$) | 2 500 counts per μSv |
| • Alarm thresholds (pre-set): | 0.2, 0.5, 1 and 2 mSv/h (per 200 mR/h) | 2, 5, 10 and 20 mSv/h |
| • Weight incl. batteries: | 190 g ... 260 g (according to antenna) | 175 g ... 250 g (according to antenna) |
| • Detector: | Energy-compensated Geiger-Mueller (for gamma and X-rays) | |
| • Power supply / autonomy: | 2 Mignon batteries (Type: LR6, AA, MN 1500) / 2 000 hours | |
| • Operational temperature range: | -20° C ... +50° C (-4° F ... 122° F), lower temperature range on request | |
| • Direction dependency: | 0° ... 180° (Cs-137) \pm 25 % | |
| • Compatibility: | In accordance with IEC 60846 and IEC 61000 | |
| • Mechanical shock: | According to IEC 60068-2-27 standard | |
| • Dimensions: | 84 mm X 24 mm x 139 mm | |
| • Protection class: | IP44, with protective covering IP67 | |
| • Storage of values: | 650 dose rate values (first in first out) and accumulated dose | |
| • Measurement range dose: | 1 μSv to 1 Sv, on request in Roentgen | |
| • Transmission cycle time (radio versions): | user adjustable | |
| • Transmission distance (radio versions): | up to 20 km / 12.5 mi | |

ACCESSORIES

- Protective rubber cover (included)
- Communication Kit (DataVIEW/-PRO and IR-transceiver)
- Transparent plastic protection
- Belt pouch
- Wall support
- Suitcase (Pelicase®)



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