MiniTRACE CSDF

Multipurpose contamination meter / survey meter / dose rate meter

- **Fast response time (1 sec.)**
- **Multipurpose measurements:**
    - **Dose rate H*(10) (µSv/h)**
    - **Count rate (cps)**
    - **Activity (Bq)**
    - **Surface contamination (Bq/cm²)**
    - **Food contamination (Bq/L)**
- **Radionuclide selection**
- **Alarm threshold for each mode**
- **Long battery lifetime: 2 000 h**
- **Robust housing**

The MiniTRACE CSDF is a multipurpose instrument fulfilling functions of a contamination, survey and dose rate meter. It is designed for improved detection and quantifying of radiation contamination and it is a front line tool in the protection against uncontrolled distribution of radioactive material.

Due to it's ease of operation, minimal professional knowledge is required for detecting radiation, making it an ideal instrument for police, fire brigades, first responders, health officers and radiation protection inspectors.

MiniTRACE CSDF provides several functions and measurement modes like the measurement of the dose rate, the activity or the count rate. With the activity and surface contamination modes, different nuclides can be selected from the inbuilt library (Cs137, Am241, I131, Sr90, U238, C14, Cl36, Co60). Moreover one additional nuclide can be defined and added to the library by the user. The surface contamination mode is calibrated according to ISO 7503-1. With corresponding accessories wipe tests (surface contamination) and food tests (food contamination) can be performed. For increased precision a mean value mode and a count up mode are provided.

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APPLICATIONS

- Radiation control areas e.g. in nuclear power plants or reprocessing plants
- Research centers, Industrial X-ray applications
- Hospitals, police, fire brigades, first responders, radiation protection inspector
- Schools, universities, educational purposes
- Search for depleted and enriched uranium, radioactive material in building- or raw materials, scrap, minerals etc.
- Determination of the gamma background e.g. with radon measurement
- Surface contamination, food control, dose rate measurement

CHARACTERISTICS

Display unit:	μSv/h, cps, Bq, Bq/cm², Bq/L
Measurement range:	Dose rate: 0.01 … 5 000 μSv/h;
	Pulses: 0.0 … 10 000 cps
	Activity (depends on the radionuclide): 0 … max. 100 000 Bq
	Surface contamination (depends on the radionuclide): 0 … approx. 5 000 Bq/cm²;
	Food: 500 … 100 000 Bq/L (related to Cs-137, 30 % statistical uncertainty for 1 Sigma, at 0.1 μSv/h background radiation)
Gamma sensitivity (Cs137):	4.3 cps/μSv/h
Energy response for dose rate measurements [μSv/h]:	24 keV to 1 253 keV +/- 40%, lid has to be closed
Detector:	Geiger-Mueller-Pancake, max. diameter: 53.6 mm; active diameter 44.5 mm, active counter tube surface 15.55 cm², window: 2.0 mg/cm²
Efficiency [cps/Bq/cm²]:	Co60: 0.41 cps/Bq/cm²; C14: 1.65 cps/Bq/ cm²; Sr90+: 10.65 cps/Bq/ cm²; Am-14:4.19 cps/Bq/ cm²; Cl36: 9.57 cps/Bq/ cm²; Cs137: 11.15 cps/Bq/ cm² U238: 4.19 cps/Bq/ cm²; I131: 9.71 cps/Bq/ cm²
Grid:	0.8 mm thick stainless steel, easily removable, 80 % transparency
Distance grid to detector surface:	3.6 mm
Integration time:	Automatic, with count up mode adjustable
Display:	6 digit display plus 5 digit alphanumeric display for alarm and status information
Alarm thresholds:	One alarm threshold can be set via software for each: μSv/h, cps, Bq and Bq/cm²
Alarm:	Visual and acoustic, ON/OFF by button or communication software
Acoustic registration of pulses:	Can be activated by button or communication software
Reference source:	Co60 according to DIN ISO 8769 (DKD certified); Cs137: Source number: CDC 7915
User calibration:	Possible by using infrared interface and communication software
Battery life:	Typ. 2 000 hours
Energy supply:	2 batteries (type: LR6, AA, MN 1500), polarity protection
Temperature range:	-10˚ C … +40˚ C (14˚ F … 104˚ F)
Weight; Dimensions	305 g incl. batteries; 84 mm x 29 mm x 139 mm
Compatibility:	IEC 60325, IEC 60846 (partially), IEC 61000

ACCESSORIES

- Protective rubber cover (included)
- Communication kit (software and IR transceiver)
- Transparent plastic protection
- Belt pouch
- Suitcase (Pelicase®)
- Wipe test kit
- Food measuring kit
- Emergency case
- Pressure-tight container for air transport