

# MiniTRACE CSDF

Versatile Contamination and Survey Meter



## Multipurpose instrument for $\alpha$ , $\beta$ and $\gamma$ radiation measurement

### FEATURES

- Ultra compact
- Fast response time (<1 sec)
- Multipurpose measurements
- ✓ Dose rate H\*(10) ( $\mu$ Sv/h)
- ✓ Count rate (cps)
- ✓ Activity (Bq)
- ✓ Surface contamination (Bq/cm<sup>2</sup>)
- ✓ Food contamination (Bq/L)
- Radionuclide selection
- Alarm threshold for each mode
- Long batter life: 2,000 hr
- Robust construction

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 its 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.

### 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
- Determination of the gamma background e.g. with radon measurement
- Surface contamination, food control, dose rate measurement

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## SPECIFICATIONS

<b>Display unit:</b>	$\mu\text{Sv/h}$ , cps, Bq, Bq/cm <sup>2</sup> , Bq/L
<b>Measurement range:</b>	Dose rate: 0.01 – 5,000 $\mu\text{Sv/h}$ ; 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/cm <sup>2</sup> ; Food: 500 – 100,000 Bq/L (related to Cs-137, 30 % statistical uncertainty for 1 Sigma, at 0.1 $\mu\text{Sv/h}$ background radiation)
<b>Gamma sensitivity (Cs137):</b>	4.3 cps/ $\mu\text{Sv/h}$
<b>Energy response for DR:</b>	24 keV to 1 253 keV +/- 40%, lid has to be close
<b>Detector:</b>	Geiger-Mueller-Pancake, max. diameter: 53.6 mm; active diameter 44.5 mm, active counter tube surface 15.55 cm <sup>2</sup> , window: 2.0 mg/cm <sup>2</sup>
<b>Efficiency [cps/Bq/cm<sup>2</sup>]:</b>	Co60: 0.41 cps/Bq/cm <sup>2</sup> ; C14: 1.65 cps/Bq/cm <sup>2</sup> ; Sr90+: 10.65 cps/Bq/cm <sup>2</sup> ; Am-14: 4.19 cps/Bq/cm <sup>2</sup> ; Cl36: 9.57 cps/Bq/cm <sup>2</sup> ; Cs137: 11.15 cps/Bq/cm <sup>2</sup> U238: 4.19 cps/Bq/cm <sup>2</sup> ; I131: 9.71 cps/Bq/cm <sup>2</sup>
<b>Grid:</b>	0.8 mm thick stainless steel, easily removable, 80 % transparency
<b>Grid to detector surface:</b>	3.6 mm
<b>Integration time:</b>	Automatic, with count up mode adjustable
<b>Display:</b>	6 digit display plus 5 digit alphanumeric display for alarm and status information
<b>Alarm thresholds:</b>	One alarm threshold can be set via software for each: $\mu\text{Sv/h}$ , cps, Bq and Bq/cm <sup>2</sup>
<b>Alarm:</b>	Visual and acoustic, ON/OFF by button or communication software
<b>Acoustic registration of pulses:</b>	Can be activated by button or communication software
<b>Reference source:</b>	Co60 according to DIN ISO 8769 (DKD certified); Cs137: Source number: CDC 7915
<b>User calibration:</b>	Possible by using infrared interface and communication software
<b>Battery life:</b>	Typical 2,000 hours
<b>Power:</b>	2 batteries (type: LR6, AA, MN 1500), polarity protection
<b>Temperature range:</b>	14° - 104°F (-10° - 40°C)
<b>Weight:</b>	10.75 oz. (305 gr) incl. batteries
<b>Dimensions:</b>	3.3 x 1.2 x 5.5 in (84 x 29 x 139 mm)
<b>Compatibility:</b>	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

