

# Mini SURVEY METER TA100U

MADE IN JAPAN

Equipped with spectrum analysis for gamma ray and CdTe semiconductor detector

$\mu\text{Sv/h}$

20180627

This device is a handy type compact dosimeter which not only displays the general dose rate display ( $\mu\text{Sv/h}$ ) but also the gamma ray nuclide is found by spectrum (graph). It is possible to transfer data to PC by USB communication.

- **Range of dose rate** 0.01  $\mu\text{Sv/h}$  – 10  $\text{mSv/h}$
- **Detector** CdTe 10 x 10 x 1 mm
- **Energy response** Within  $\pm 15\%$  (Energy compensation)
- **Energy range** 20 keV - 1.5 MeV
- **Energy resolution** 3 % (Cs-137, 662 keV, Typ.)
- **Throughput** 50,000 cps
- **Sensitivity** 800 cpm ( $\mu\text{Sv/h}$ )
- **Function** Identifies dose rate, cumulative dose, spectrum and nuclide

## Overview

The detector of this device uses a CdTe (cadmium telluride) semiconductor. It has higher atomic number (48, 52) than silicon semiconductor, has high energy radiation absorption power, and can operate at normal temperature. This detector has excellent energy resolution of 3% (Cs-137, 662 keV gamma ray). In spectral mode, nuclide identification is possible and discrimination between Cs-134 and Cs-137 is possible. Energy compensation is realized by the latest electronic circuit and accurate dose rate is displayed in a wide range of 0.01  $\mu\text{Sv/h}$  to 10  $\text{mSv/h}$ . The power supply can be used for about 15 hours continuously with built-in lithium battery. It adopts organic EL display and it is very compact but it is easy to see. It has PC application software for Windows, so it is possible to transfer data to the PC via USB communication and save the file in CSV format.

## Specifications

Range of dose rate	0.01 $\mu\text{Sv/h}$ - 10 $\text{mSv/h}$
Detector	CdTe semiconductor 10 x 10 x 1 mm
Energy response	Within $\pm 15\%$ (Energy compensation)
Energy range	20 keV to 1.5 MeV
Energy resolution	3 % (Cs-137, 662 keV, Typ.)
Throughput	50,000 cps and more
Sensitivity	800 cpm ( $\mu\text{Sv/h}$ )
Dose rate time constant	AUTO, 3 sec, 10 sec, 30 sec, 60 sec, 90 sec
Dose rate energy compensation	512 stages
Alarm function	Alarm by threshold of dose rate
Energy spectrum	512 channels
Nuclide identification function	11 nuclides such as Cs-134, Cs-137, I-131, Co-57, and Co-60
Indicator	Organic EL display 128 x 64 dots
Built-in power	Lithium ion polymer charging battery, 2000mAh
Operating time	About 15 hours in a row
External dimensions	Main unit : 67 (W) x 115 (H) x 28 (D) (Unit : mm)
Weight	About 180g
Environmental condition	Operating temperature: 0 – 40 degrees, No dew condensation



### Spectrum mode

As an example: Cs-134 and Cs-137 of soil



### Dose rate mode

(Time constant AUTO, dose rate and accumulated dose)



**Main unit and accessories**

\*Images is for illustration purpose.

\*Please note that contents may change without prior notice.

Website



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