

BETA / GAMMA RADIATION SURVEY METER TYPE : RM707



Technical Data

Beta / Gamma Radiation Survey Meter Type RM707 designed, manufactured and supplied by Nucleonix Systems is a state of art micro-controller based unit which serves as a general purpose alarming beta gamma survey meter.

This unit is provided with an external probe housing a thin walled GM detector. The probe has side shutter arrangement for Beta/Gamma selection.

Measures gamma radiation dose rate/contamination in work areas at Radiological installations and contamination of various commodities and items in a nuclear accident scenario.

It measures dose rate in the range of 0-200mR/h / 0-2000 μ Sv/h in 4 linear ranges & countrate in the range of 0-99999CPM in 4 linear ranges.

It has a lot of unique features which includes user interface through a set of four command buttons & the visual indication to the user is on a large analog LCD display. Data visualization is provided on both linear analog scale & direct digital display.

FEATURES :

- Conforms to ANSI N42.17A performance specifications for Health Physics instrumentation (portable) & CE compliant.
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- Sensivity:0.01mR/hr or 0.1 μ Sv/hr.
- Measures gamma dose rate in R/h or Sv/h
- Measures beta contamination in CPM.
- Dose rate accuracy of +/- 10% with Cs-137
- Uses large area custom LCD display for dose rate visualization.
- Preset alarm facility for generation of audio visual alarms.
- External Probe.

SPECIFICATIONS

Radiation detected : Beta and Gamma

Detector : Halogen quenched Beta /Gamma Radiation detector
Type:GM137 or equivalent.

Detector Probe: Detector is housed in a cylindrical probe which has a shutter arrangement for Beta /Gamma selection.

Measurement Unit : R/hr or Sv/hr, for gamma dose rate & CPM for Beta contamination

Measurement Range : (Manual)
Option A: Dose Rate : (0-200 μ R/h) or (0-20mR/h) in Three linear ranges
Option B: Dose Rate : 0-200mR/hr or (0 - 200) μ Sv/hr in 4 linear ranges.

Sensitivity : 0.01mR/hr or 0.1 μ Sv/hr.

Count Rate : 0 – 99999 CPM in 4 linear ranges.

Range Selection : Manual

Over range : Senses over range & shows on display.

Accuracy : Within +/-10% with Cs¹³⁷

Time constant : Floating time constant of 4 sec / 8 sec.

Present Alarm Range: 0-9999 CPM or 0-199.9 mR/h

Audio : Built-in piezo buzzer for generating audio chirps for radiation events and alarm O/P for preset alarms.

User Interface : FN, RANGE, \blacktriangle & \blacktriangledown are the four control buttons provided on the instrument. The above buttons allow the user to program and operate the instruments in appropriate manner for configuration and measurement.

Indication (Visual) : Analog bar scale visualization along with direct digital indication on custom backlit LCD display.

Power : 7.5 Volts, DC, size AA, MN1500 LR6 (5 X 1.5 Volts), Alkaline cells.

Battery life : Above 200 hrs.

Battery Indication : Battery low indication is provided on LCD display.



Type test compliance :

- a) Conforms to ANSI N42.17A performance specifications for Health Physics instrumentation (portable)
- b) CE compliant

Dimensions : 106 W X 196L X 100H (mm).