



## RADIATION SURVEY METER (MICRO) TYPE: RM 701N

### Technical Data

**RADIATION SURVEY METER (micro) Type: RM701N** is a G.M. Detector based, battery powered, hand-held, ruggedized general purpose radiation Survey Meter. This will be useful for dose rate measurements in Nuclear installations, Radiochemical plants, Reprocessing plants, etc. Additionally it will be useful in medical, agricultural, industrial and other installations where radioactive isotopes are used for a variety of applications.

This product is designed around a Microcontroller Chip. It is provided with alpha Numeric LCD display for indicating the doserate in digits, dose rate as a bar graph, cumulative dose in digits. It covers wide range from 0 to 10R/hr in two range with auto ranging. This unit has a facility for storing the data into built-in E<sup>2</sup>PROM along with real time. The stored data can be recalled on to the display or transmitted to PC through USB port.

### FEATURES :

- Microcontroller based design.
- Compact, elegant and light weight.
- Uses energy compensated GM Counter.
- Range changeover Automatic.
- Accuracy+/- 15% with Cs-137.
- Measures Dose in mR/hr or  $\mu$ Sv/hr
- Facilitates storing recalling of readings and transmission of readings to PC
- Works on 6V (1.5X4V) dry cell batteries
- RTC for time stamp of each reading
- IP rating is better than IP56 for unit & probe
- EMI/EMC compliance as per IEC61000-4-3

### SPECIFICATIONS

**Detector :** GM counter Type LND 713 with energy compensated filter

**Radiation detected:** X& Gamma, from 60Kev to 1.3 MeV

**Measurement Unit :**  
mR/h /  $\mu$ Sv/h / cps /cpm

**Measuring Range:**  
0 – 1000.0 mR/hr (Low Range)  
1 R/hr - 10 R/hr (High Range)  
0 – 10,000  $\mu$ Sv/hr (Low Range)  
10 mSv/hr - 100 mSv/hr (High Range)

**Preset alarm range:** 0-10000.0mR/r  
(or) 0-100000 $\mu$ Sv/h.

**Range Changeover :** Automatic

**Over range :** Unit shows over range above 10R/hr to 1000R/hr

**Energy Response :** Within +/- 20% of true response from 60 KeV to 1.25 Mev

**Accuracy :** +/- 15% with Cs-137.

**Display :** 16X2 alpha numeric LCD display; Digital display of dose rate and units in the first line, Bar graph or dose display in the second line.

**Response Time:** < 5 sec

**Audio:** Built-in piezo buzzer provides beeps for every detected pulse and alarm o/p for preset alarms.

**Data Storage:** Can store upto 1000 readings. Stored data can be recalled back on to display or transmitted to PC through micro USB port.

**Serial port / data communication:** Built- in Micro USB port facilitates data downloading into PC. Data communication software with connecting cable can be provided at extra cost.

**User Interface:** START, STOP, PROG, STORE, INC& DEC are the six control buttons provided on the instrument. The above buttons allow the user to program and operate the instruments in appropriate manner.

**RTC:** Real time stamp recorded with each reading.

**Fault Diagnostics:** Low battery indication hv fault& detector failure are provided on the display.

**Power:** 6 Volts, DC, size AA, MN1500 LR6 (4 X 1.5 Volts), Alkaline cells.



**Type test compliance:**  
a). IP rating is better than IP56 for unit  
b) EMI/EMC compliance as per IEC61000-4-3

**Dimensions :**  
196H x 106W x 50D mm (approx.)

**Transport Case:** IP67 rated Pelican style case suitable for transport and storage can supplied at extra cost