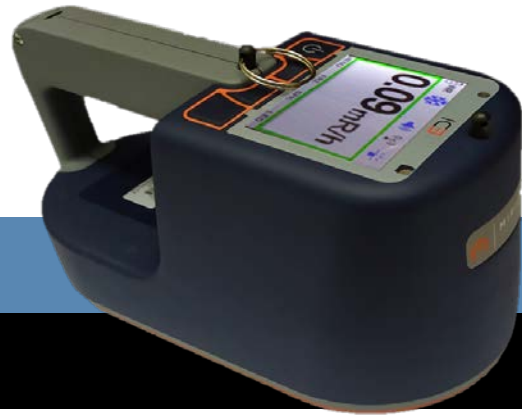


## IC3 Meter

Highly Stable and Accurate Ion Chamber Based Meter



Radiation Detection Division

Health Physics

The **IC3 Survey Meter** is a battery operated, auto ranging, portable ion chamber survey meter designed for highly stable and accurate measurement of dose rates and integrated dose of gamma, x-ray and beta radiation.

The meter covers a measuring range of 1  $\mu\text{Sv/h}$  – 1 Sv/h (0.01 mR/h to 100 R/h ) in the dose rate mode, and 0.01  $\mu\text{Sv}$  -10 Sv (1uR to 999 R ) in the integrated dose mode. The auto ranging meter utilizes a combination display consisting of a smoothed digital readout for minimum fluctuation and a two decade analog bar graph for fast response.

The **IC3** survey meter combines an ionization chamber vented to atmospheric pressure, and a micro-controller to offer optimal performances and special features. Furthermore it is a compact hand-held, lightweight, rugged meter, easy to use and maintain.

The **IC3** provides a very straightforward, fast and reliable method of collecting and storing monitoring data on site for later use. The **IC3** can store data records that are time stamped and identify measurements location. The stored data records can be downloaded by the **RMV** (Rotem Meter View) software package which is freely available off our website.

The **IC3** is ideal for use in nuclear power plants, nuclear medicine, radiography and radiotherapy facilities, life science laboratories, nuclear research centers and in other industrial applications.

### Features

- **New** Sealed Electrometer provides complete protection in high humidity areas
- **New** mica beta window provides excellent beta responses
- NDT safety providing accurate readings from 5 picosecond X-Ray pulses
- Wide measuring range of 1  $\mu\text{Sv/hr}$  to 1 Sv/hr (0.1 mR/hr to 100 R/hr)
- Built in memory to store data
- Compact, lightweight and easy-to-use, one hand operation
- Dose rate and accumulated dose measurement
- Display illumination
- Freeze mode to record the highest dose rate
- User programmable dose rate and accumulated dose alarms
- Remote PC communication via Wi-Fi (optional) or mini USB connector
- Quick Response Hot Spot detection

# RAM ION Survey Meter

## Technical Data

Measuring Range	1 $\mu$ Sv/hr to 1 Sv/hr (0.1 mR/hr to 100 R/hr)
Display Range	0.00 $\mu$ Sv/hr to 1 Sv/hr (0.01 mR/hr to 100R/hr)
Accuracy	$\pm$ 10% of reading within measuring range
Gamma Energy Dependence ( $^{137}\text{Cs}$ )	Better than $\pm$ 20% at 20keV to 3MeV
Beta Energy Dependence	Better that $\pm$ 20% from 200keV
Angular Dependence ( $^{137}\text{Cs}$ )	Less than $\pm$ 5% (for $\pm$ 180° of front direction)
Ion Chamber Volume	350 cm <sup>3</sup>
Chamber Wall and Cover Thickness	300 mg/cm <sup>2</sup> (tissue equivalent)
Window Thickness	7 mg/cm <sup>2</sup> Mylar
Response Time	2 sec. for readings above 1 mR/h 5 sec. for auto-ranging change, from Low Range to High Range (2sec. +3 additional seconds for auto ranging delay)
	Power Source (Built in automatic battery check) <i>meter</i> : Four 1.5 Volt AA batteries - 120 hours of continuous operation
Display	Color TFT Display
Data Logging	200 data records
Temperature Range	Operation: -10°C to +50°C (15°F - 122°F) Storage: -20°C to +60°C (-5°F - 140°F)
Humidity Range	Up to 95% RH (non condensing)
Dimensions	Width: 13cm (5.1"), length 24cm (9.5"), height 14cm (5.5")
Weight	1000g (2.4lb) including batteries
Casing	High impact ABS
Data Connection	USB for calibration, configuration, upgrade firmware and stored data points Optional Internal 900 MHz or 2.4 GHz RF Radio (WRM2/WiFi)
Threshold Alarms	User selectable

## Ordering Information

ROTEM INDUSTRIES reserves the right to change specifications without advance notice