ROTEM

RAM ION Meter

Ion chamber survey meter for gamma, X-ray and beta dose rate and dose

Portable, battery-operated, auto-ranging ion chamber survey meter for stable and accurate measurement of dose rate and integrated dose from gamma, X-ray and beta radiation. It can measure X-ray bursts from 5 picosecond pulses, which suits X-ray and NDT applications, and now has USB for power and data transfer.



Detector	Measurement range	Weight
Ion chamber, 500 cc; wall a nd cover 300 mg/cm² (tissue e quivalent); window 7 mg/cm² [1]	**1 µSv/h – 500 mSv/h (0.1 mR/h – 50 R/h)** [1]	**,100 g** [1]

Specifications

DETECTOR

Detector	Ion chamber, 500 cc; wall and cover 300 mg/cm² (tissue equivalent); window 7 mg/cm²	[1]

PERFORMANCE

Accuracy	±10% of reading within the measuring range	[1]

MEASURING RANGE

Measurement range	1 µSv/h – 500 mSv/h (0.1 mR/h – 50 R/h)	[1]
Sensitivity	172 cps per mR/h (0.1–250 mR/h); 1.72 cps per mR/h (250 mR/h – 50 R/h)	[2]
Energy response	Gamma: better than ±20% at 20 keV–1.3 MeV (relative to ^{137}Cs); beta: better than ±20% from 200 keV	[2]
Angular dependence	Less than ±5% within ±120° of the front direction (^{137}Cs)	[2]
Response time	2 s for readings above 1 mR/h; 5 s for an auto-ranging change from low to high range	[1]

CONNECTIVITY & INTERFACE

Display range	0.1 µSv/h – 500 mSv/h (0.01 mR/h – 50 R/h)	[1]
Display	DigiLog: 3 digits and a 2-decade analogue bar graph	[1]
Data storage	347 data records (1,415 with extended memory)	[1]

POWER & BATTERY

Power supply	Two 1.5 V alkaline C cells, 100 hours of continuous operation; USB connector for both power and data	[1]

MECHANICAL

Dimensions	10 × 25 × 19 cm (W × L × H)	[1]
Weight	1,100 g	[1]

ENVIRONMENT & RATINGS

perating temperature	−10 to +50 °C	[1]

ORDERING & ACCESSORIES

ptions	6 MeV energy moderating sleeve and cover	[1]
Ordering code	DigiLog HR: BAK-1940 (µSv/h), BAK-1920 (mR/h); DigiLog LR: BAK-1950, BAK-1930; DigiLog X: BAK-2000, BAK-2005 (HR), BAK-2010, BAK-1990 (LR)	[1]

Sources

[1] RAM ION Survey Meter technical data sheet
Rotem Industries · datasheet · TDS p. 2, Technical Data; TDS p. 2, Ordering Information · checked 2026-10-16
https://rotem-radiation.co.il/wp-content/uploads/2025/05/RAM-ION-30012023.pdf

[2] RAM ION Meter
Rotem Industries · product-page · Product page – Technical Information · checked 2026-10-16
https://rotem-radiation.co.il/solution/ram-ion-meter-2/

Every value is taken from the manufacturer’s own document; the number after the value refers to the source list. Always check against the latest datasheet before ordering.

The data comes from the manufacturer’s published documents. Manufacturers may change specifications; the current configuration and performance are confirmed in the quotation.