

# The RAM-GENE Meter

## Portable Contamination Meter

The versatile RAM-GENE meter is a state of the art, portable, highly sensitive meter, designed to instantly detect low level surface contamination on laboratory bench tops, floors, equipment, clothing, shoes and skin. The intrinsic CMOS microprocessor facilitates smooth software control and allows for measuring a wide range of values.

### Features

- Large, easy to read, 7- segment, 4 digit LCD display and touch panel
- Portable, lightweight and compact
- One hand operation
- Ergonomically designed to function using only 3 push-buttons
- Stand up base holder
- User selectable thresholds
- CE marked

### Functions

- Low battery alarm
- Overflow Alarm
- Alarms for detector failure
- Alarms in case of exceeded thresholds
- piezoelectric audio element indicates count rate
- LED indicator flashes with each incident radiation pulse
- Wide range of measurement - up to 42,000 counts per second
- Dead time correction
- Special averaging function for "smoothing" the readout

The Meter is available with the following accessories

RAM-GENE meter including base holder and cover cap	4-0010
RAM-GENE meter	4-0011
RAM-GENE Base holder	A-0100
GM Pancake detector cover cap	A-0060
Set of detector collimators	A-0050
Check source	A-0070



## Technical Data

<b>Display</b>	LCD readout showing : <ul style="list-style-type: none"> <li>● 4 digits for accurate and easy readout</li> <li>● detector failure</li> <li>● low battery</li> <li>● overflow</li> <li>● thresholds</li> </ul>
<b>LED</b>	Indicator flash for count rate
<b>Audio</b>	Internally mounted piezoelectric element
<b>Measuring Units</b>	Counts/sec.
<b>Power source</b>	One 9 volt battery supplying around 50 hours of continuous operation. Automatic battery check under full load
<b>Temperature range</b>	<b>Operation:</b> -10°C to +50°C (15°F - 122°F) <b>Storage:</b> -20°C to +60°C (-5°F to 140°F)
<b>Humidity range</b>	10% to 95% RH (non-condensing)
<b>Casing</b>	High impact plastic (ABS)
<b>Dimensions -</b>	Width 72 mm (2.8") Length 114 mm (4.5") Height 34 mm (1.3")
<b>Weight</b>	340 gr (0.75 lb)
<b>Detector</b>	Pancake GM tube (NRC 2006 or similar), effective diameter 1.75"
<b>Window thickness</b>	Mica, 1.5 - 2 mg/cm <sup>2</sup> protected by a stainless steel wire meshing
<b>Background</b>	0 -1 cps
<b>Sensitivity (<sup>137</sup>Cs)</b>	Approx. 5.8 cps/μSv/h (58 cps/mR/h)
<b>Count rate range</b>	0 to 42,000 cps

### Surface sensitivity (in contact):

Isotope	Beta emitting isotopes				Additional radionuclides		
	E <sub>max</sub> [keV]	2π-Eff. [%]	Sensitivity [cps/Bq/cm <sup>2</sup> ]	MDL* [Bq/cm <sup>2</sup> ]	Radio-nuclide	Sensitivity [cps/Bq/cm <sup>2</sup> ]	MDL* [Bq/cm <sup>2</sup> ]
<sup>14</sup> C	156	3	0.25	9	<sup>99m</sup> Tc	0.45	5.5
<sup>35</sup> S	167	8	0.65	37	<sup>125</sup> I	0.04	63.0
<sup>147</sup> PM	224	15	1.25	2	<sup>131</sup> I	3	0.8
<sup>99</sup> Tc	290	20	1.75	1.5	<sup>230</sup> Th	1	2.5
<sup>90</sup> Sr+ <sup>90</sup> Y	580+2280	50	8.5	0.3	<sup>241</sup> Am	1	2.5
<sup>36</sup> Cl	714	45	3.5	0.7			
<sup>210</sup> Pb	1160	50	4	0.6			
<sup>32</sup> P	1710	70	5.5	0.5			

\* MDL - Minimum Detectable Level calculations are based on background readings of 1 cps and a confidence level of 99%

ROTEM INDUSTRIES reserves the right to change specifications without advance notice

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