

## MediSmarts GM-10 Area/Contamination Monitoring Channel

0 – 42,000 CPS

The GM-10 monitoring channel can be used as part of the MediSmarts system to monitor and record radiation levels where low energy measurement is required and alternatively as an on-line contamination monitor for cyclotron sites and nuclear medical departments. The measuring range is between 0 – 42,000 CPS

The Monitoring Channel consists of the following Components:

- Connection Unit.
- Data Processing Unit (DPU).
- GM-10 Detector.
- Cable between Connection Unit and DPU.
- Cable Between Detector and DPU (2meters)
- Optional Alarm Unit.
- Optional Remote Display Unit



The DPU is the linking stage between the detector and the computer. The DPU processes the detector's signal and transmits the processed radiation data via an RS-485 communication network to the MediSmarts software in the computer. The DPU automatically recognizes the detector's type and its calibration factor. The automatic detector identification enables flexibility in using and switching between different detectors on the same DPU.

### FEATURES

- Output relay contacts activated if exceeded radiation threshold levels & malfunction.
- Radiation measurement is displayed on a large, easy to read, digital LCD.
- Four indication LED's
- Displays Threshold and Malfunction alarms.
- Automatic identification of the detector calibration factor.
- RS-485 Communication.
- Self test and parameter display on start up:
- Automatic identification of detector malfunction.
- Background subtraction.
- Accumulating and Saving the Dose
- Output for alarm unit and remote display unit

## SPECIFICATIONS

### GM-10 Detector.

<b>Type</b>	<b>GM-10</b>
<b>Geiger Type</b>	Pancake LND 73118 or equivalent
<b>Measuring Range</b>	0 to 42KCPS
<b>Sensitivity (Cs-137)</b>	350cpm/ $\mu$ Sv/hr (3500cpm/mR/hr)
<b>Accuracy</b>	$\pm$ 15% reading within the measuring range
<b>Energy Range</b>	35 keV - 5.4 MeV
<b>Energy Dependence</b>	$\pm$ 20%

Performance (surface sensitivity - in contact) Beta Emitting Isotopes				
Isotope	E <sub>max</sub> (keV)	2p Effic (%)	Sensitivity cpm/Bq/cm <sup>2</sup>	MDL* Bq/cm <sup>2</sup>
<sup>14</sup> C	156	3	15	5
<sup>35</sup> S	167	8	40	2
<sup>147</sup> Pm	224	15	75	1
<sup>99</sup> Tc	290	20	100	0.8
<sup>90</sup> Sr + <sup>90</sup> Y	580 + 2280	50	500	0.2
<sup>67</sup> GA	900	48	235	0.35
<sup>123</sup> I	1000	55	280	0.3
<sup>36</sup> Cl	714	45	210	0.4
<sup>210</sup> Pb	1160	50	250	0.3
<sup>32</sup> P	1710	70	330	0.3
<sup>51</sup> CR	325	0.2	1	75
<sup>99m</sup> Tc	140	5.3	25	3
<sup>125</sup> I	35	0.5	2.4	32
<sup>131</sup> I	610	40	190	0.4
<sup>230</sup> Th	4600	14	65	1.1
<sup>241</sup> Am	5400	14	65	1.1

Perfection  
In  
Detection

Rotem Part # BAK-2406

ROTEM INDUSTRIES reserves the right to change specifications without advance notice

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