



Contamination Monitors

LabLogic features a wide selection of radiation contamination monitors for detecting isotopes commonly used in research laboratories.



Outstanding Features

- High sensitivity detectors
- Direct reading log scale
- Externally adjustable trip alarm that can be set to trip at any level on the scale
- Audible count rate to give an estimate of radiation intensity
- Easy calibration
- Dependable performance
- Probes are connected by a BNC connector for easy replacement
- High impact, chemically resistant housing, robust while avoiding the risk of corrosion
- Optional power supply to save on the batteries
- One year warranty
- User friendly
- Rapid delivery
- Count on LabLogic





Rad-Monitor™ MODEL GM1

- Detects ¹⁴C, ³²P, ³³P, ³⁵S

Model GM1 detects contamination from radiotopes commonly used in research laboratories. GM tube detector has a total effective area of 28.5mm (1.125 inches) and a window thickness of 1.5-2.0 mg/cm². Unique thin screen protects the end window and provides 86% open area for maximum sensitivity.

Order No.	Description
951020/R	Rad-Monitor™ Model GM1
950114/R	Calibration Certificate



Rad-Monitor™ MODEL GM2

- Highest Sensitivity for ¹⁴C, ³²P, ³³P, ³⁵S

Model GM2 features a large diameter thin end window GM tube with a total effective area of 45mm (1.75") and a window thickness of 1.5-2.0 mg/cm². This detector provides the highest sensitivity for detecting soft beta emitters such as ¹⁴C and ³⁵S. Ideal for benchtop monitoring.

Order No.	Description
951036/R	Rad-Monitor™ Model GM2
950114/R	Calibration Certificate

Detector Specifications

	GM1	GM2	GM2-P	SD10
Detector Type	End window G-M tube	Pancake G-M tube	Pancake G-M tube	Scintillation Detector
Application	Alpha, Beta, Gamma	Alpha, Beta, Gamma	Alpha, Beta, Gamma	Low energy Gamma
Energy Response	40keV beta	40keV beta	40keV beta	10keV to 1.5 meV gamma
Window Type	Mica	Mica	Mica	Aluminium
Window Area	6.0cm ²	15.0cm ²	15.0cm ²	32mm
Window Density	1.5-2.0 mg/cm ²	1.5-2.0 mg/cm ²	1.5-2.0 mg/cm ²	14 mg/cm ²
Effective Diameter	2.86cm	4.45cm	4.45cm	25mm
Background	<0.5cps	<1.0cps	<1.0cps	<8.0cps

Detection Efficiencies

Model	¹⁴ C	³² P	⁹⁰ S / ⁹⁰ Y	⁹⁹ Tc
GM1	10%	35%	45%	30%
GM2	12%	35%	48%	32%
GM2-P	12%	35%	48%	32%
SD10	Not Available	60%	Not Available	Not Available



Rad-Monitor™ MODEL GM2-P

• Ergonomic Design

Model GM2-P features a "pancake" style detector with a rubberised grip handle. Large diameter tube is mounted at a slight angle for convenient benchtop, hands and clothing monitoring.

Order No.	Description
951044/R	Rad-Monitor™ Model GM2-P
950114/R	Calibration Certificate



Rad-Monitor™ MODEL SD10

• High Efficiency for Iodine-125

Model SD10 features a high sensitivity scintillation probe for detecting low energy gamma emitters such as Iodine-125. The detector utilises a fast response photomultiplier tube and a 25.4mm x 2mm thick sodium iodide crystal with a thin 1mm (7mg/cm²) aluminium window. Suitable for thyroid monitoring of ¹²⁵I uptake. It is also suitable for detection of shielding leakages, x-ray and gamma radiation work.

Rad-Monitor Instrument Common Specifications

Meter Scale	0-2000cps
Linearity	+ (-) 10%
Drift	< 5% of full scale
Response Time to reach 90% of full scale	< 4 sec
Detector Saturation System	Built in saturation indicator gives visible and audible signals when detector becomes saturated in a high energy field.
Temp. Coefficient	< 0.2°C
Input Sensitivity	0.02V to 10.0V adjustable
High Voltage	500-1500 VDC adjustable
Battery	Two 9V Alkaline included. Optional: Six 1.5V AA, Alkaline (or Rechargeable). Can also be mains operated.
Battery Life	Approximately 200 hours continuous
Temp. Range	0°C to 50°C
Humidity Range	5 to 95% non-condensing
Housing & Components	Two piece high impact and chemically resistant plastic. Nylon coated handle and probe holder.
Dimensions	19cm x 11.4cm x 12.7cm
Weight	1Kg

Order No. Description

954065/R	Rad-Monitor™ Model SD10
950114/R	Calibration Certificate

Rad-Monitor GM Model Sensitivities

Model	Beta ¹⁴ C	Beta ³² P	Gamma ¹³⁷ Cs
GM1	0.3 cps for 1 Bqcm ⁻²	1.8 cps for 1 Bqcm ⁻²	3.0 cps for 1 μSv/h
GM2	0.7 cps for 1 Bqcm ⁻²	4.8 cps for 1 Bqcm ⁻²	6.0 cps for 1 μSv/h
GM2-P	0.7 cps for 1 Bqcm ⁻²	4.8 cps for 1 Bqcm ⁻²	6.0 cps for 1 μSv/h

Rad-Monitor Scintillation Model SD10 Sensitivities

Model	¹²⁵ I (3.7kBq at 20mm)	⁵⁷ Co (3.7kBq at 20mm)	^{99m} Tc (3.7kBq at 20mm)
SD10	525 cps	300 cps	200 cps

Contamination Monitors for some Common Radionuclides

Isotope	Rad Monitor
Americium 241 β and γ	GM1, GM2, GM2-P, SD10*
#Barium 133	SD10
Cadmium 109	SD10
Caesium 134, β and γ	GM1, GM2, GM2-P, SD10*
Caesium 137, β and γ	GM1, GM2, GM2-P, SD10*
Calcium 45	GM1, GM2, GM2-P
Carbon 14	GM1, GM2, GM2-P
Chlorine 36	GM1, GM2, GM2-P
#Cobalt 58	SD10
Cobalt 60 β and γ	GM1, GM2, GM2-P, SD10*
Gallium 67	SD10
#Gold 195	SD10
Indium 111	SD10
#Indium 113 ^m	SD10
#Iodine 123	SD10
#Iodine 125	SD10
Iodine 131 β and γ	GM1, GM2, GM2-P, SD10*
Iridium 192 β and γ	GM1, GM2, GM2-P, SD10*
Krypton 85	GM1, GM2, GM2-P
Nickel 63	GM1, GM2, GM2-P
Phosphorus 32	GM1, GM2, GM2-P, SD10
Phosphorus 33	GM1, GM2, GM2-P
Promethium 147	GM1, GM2, GM2-P
Radium 226	GM1, GM2, GM2-P, SD10
#Selenium 75	SD10
Sodium 22 β and γ	GM1, GM2, GM2-P, SD10*
Strontium 90 / Yttrium 90	GM1, GM2, GM2-P
Sulphur 35	GM1, GM2, GM2-P
Technetium 99 ^m	SD10
Tellurium 123 ^m	SD10
Thallium 204	GM1, GM2, GM2-P
Thulium 170	GM1, GM2, GM2-P
Natural Uranium	GM1, GM2, GM2-P, SD10

ELECTRON CAPTURE NUCLIDE

* SOURCE LOCATION

To locate an open beta/gamma source use one of our GM monitors to look for the beta radiation. However, to detect contamination from a sealed beta/gamma source then use our SD10 to look for the gamma radiation.

Guaranteed Delivery

At LabLogic we believe that in addition to providing good instruments it is equally important to supply the instruments within a reasonable time scale. That is why our instruments and spare parts are held in stock so that they can be supplied within a few days from the point at which LabLogic receive the order.

Service and Support

All of LabLogic's products are backed by our in house Service Department at our Head Office in Sheffield.



Spare Parts

Catalogue Numbers	Description
951037	Cable for Rad Monitors Models GM1, GM2, SD10
951067	Logic Circuit Board for GM1, GM2, SD10
951068	Power Supply Circuit Board for GM1, GM2, SD10
950130	On/Off Knob for all Monitors
959012	Plastic End Cap GM1
951034	Speaker for all Model Monitors
950142	Battery Holder for 6 "AA" Batteries
959023	Replacement Tube for GM1
959015	Replacement Tube for GM2
959018	Replacement Tube for GM2-P
959050	Replacement Tube for SD10

Microprocessor Radiation Survey Meters MODEL MRSD & MRSS

Innovative micro-processor circuitry automatically controls standard operating functions. Important features include automatic ranging, dead time compensation, probe linearisation and self diagnostics.

Models available with single or dual probe inputs. Dual probe inputs allow immediate selection between GM probe and scintillation detector. Ideal model for detecting both ¹²⁵I and beta emitters. Probes available separately.



Order No.	Description
956505/R/D	Dual Probe Microprocessor Survey Meter (probes sold separately) Model MRSD
956500/R/D	Dual Probe Microprocessor Survey Meter (probes sold separately) Model MRSS

Survey Meter Probes

Order No.	Description	Detection Capabilities
956023/R	High Sensitivity GM Pancake Probe	¹⁴ C, ³² P, ³⁵ S, ³³ P
956045/R	Scintillation Probe	¹²⁵ I