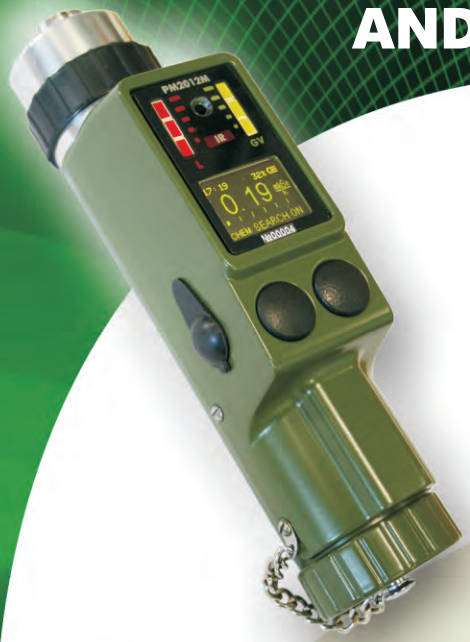
POLIMASTER®

Innovating Radiation Detection Technologies Since 1992

COMBINED GAMMA DOSIMETER AND CHEMICAL AGENT DETECTOR

PM2012M



PM2012M is a two-in-one instrument featuring chemical detector and gamma radiation detector in one unit. The device is designed to detect chemical warfare agents and toxic compounds and differentiate between organophosphorus and arsenic-containing compounds, as well as continuously monitor radiation background, measure gamma dose and dose rate and provide audible, visual alarms when preset thresholds are exceeded.

The PM2012M is invaluable for first responders, police officers, military, and customs and border patrol services in the day-to-day monitoring of public safety as well as in special HazMat operations. It can be used as a personal detector, a monitor for surveying contaminated areas, or as a fixed-installed detector.

chemical ALARM

radiation ALARM

LOCATION

MEASUREMENT

IRDA

The PM2012M is able to:

- Detect and differentiate between organophosphorus (GA, GD, GB, VX, etc.) And organoarsenic (Lewisite, and Lewisite like) compounds;
- Indicate chemical agent concentration levels;
- Monitor the radiation background continuously;
- Precisely measure gamma dose and dose rate;
- Record and store of up to 8600 history events in the instruments' non-volatile memory;
- Transmit all recorded data to a PC via IR channel for the data processing and analysis.
- Provide audible, visual alarms when the preset alarm thresholds are exceeded.

The PM2012M uses Ion Mobility Spectrometry principles to detect chemical vapour agents. Ion Mobility Spectrometry provides rapid response time at very low vapor concentrations while also ensuring high selectivity and accuracy to minimize the probability of the false positive alarms.

The PM2012M requires very little training or maintenance and operates for more than 150 hours from one battery in normal environment.

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TECHNICAL SPECIFICATIONS:

Detectors: **- Chemical detector** **- Radiation detector**	 **IMS with ^{63}Ni source** **Geiger Mueller**
Dose Rate	**0.1 μSv/h - 10 Sv/h**
Dose	**1.0 μSv - 9.99 Sv**
Energy range	**0.06 - 3.0 MeV**
Chemical detector response time: **- organophosphorus compounds** **- arsenic-containing compounds**	 **$(5\pm1.5)10^{-5}$ mg/l for 10 s** **$(3\pm0.9)10^{-4}$ mg/l for 15 s**
Chemical agent concentration indication on analogue scale: **- one segment** **- two segments** **- three segments**	 **close to threshold level 75-99%** **threshold level reached/exceeded 100-124%** **threshold level highly exceeded 125% and up**
Alarms	**Audio, visual**
Communication with PC (download/view data log, parameter settings)	**Infra red**
Power requirements	**one LR20/D battery 1.5V or vehicle power supply 9-36 VDC or 220VAC**
Battery operation time	**150 h**
Ingress protection	**IP41**
Environmental: **- operating temperature** **- relative humidity**	 **-10 to +50 °C** **up to 98% at 35 °C**
Dimensions, max.	**66 x 47 x 195 mm**
Weight, max	**0.77 kg**

Design and specifications of the device can be changed without further notice.

ISO 9001

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