

PM2010M Combined Gamma Radiation and Chemical Agent Detector

PM2010M is a two-in-one instrument featuring chemical agent detector and gamma radiation detectors in one unit. The device can detect and differentiate between organophosphorous (GA, GD, GB, VX, etc.) and arsenic-containing (Lewisite, and Lewisite like) compounds, as well as continuously monitor radiation background and provide audible and visual alarms when preset thresholds are exceeded.

Features

The Polimaster PM2010M Combined Gamma Radiation and Chemical Agent Detector is a two-in-one instrument featuring both a detector for chemical agents and a detector for gamma radiation.

The PM2010M is invaluable for first responders, police officers, and customs and border patrol services in the day-to-day monitoring of public safety as well as in special HazMat operations. The PM2010M is able to:

- Detect and differentiate between organophosphorous (GA, GD, GB, VX, etc.) and organoarsenic (Lewisite, and Lewisite like) compounds;
- Monitor the radiation background continuously;
- Provide audible and visual alarms when the preset alarm thresholds are exceeded.

The PM2010M uses Ion Mobility Spectrometry principles to detect chemical 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 PM2010M requires very little training or maintenance and operates for more than 40 hours from one set of batteries in normal environment. The device can easily be clipped to a belt for convenient use. Its shockproof and hermetic casing additionally aids the instrument to meet the drop test from 0.7 m to a concrete surface.

Applications:

- [Security and Police](#)

Specification

	PM2010M
Detectors	
Gamma-radiation detector	Geiger-Muller counter
Chemical agent detector	Ion Mobility Spectrometry (IMS)
Gamma radiation energy range	0.06 – 3.0 MeV
Dose rate threshold range	0.001 up to 999 mSv/h
Detection time when threshold concentration is exceeded (in normal environmental conditions: temperature +20° C±5°C, atmospheric pressure range: 86 to 106.7 kPa, relative humidity range: 30% to 80%)	
threshold 5*10-5mg/l for organophosphorous compounds, no more than	5 s
threshold 5*10-4mg/l for arsenic-containing compounds, no more than	15 s
Detection time of step increase or decrease of gamma-radiation dose equivalent rate from 10 to 100 mSv/h, no more than	10 s
Power supply	two AA type batteries
Batteries lifetime, not less than	40 h



Operating conditions	
temperature range	-20 to +60°C (-4 to +140 °F)
relative humidity	up to 98% at 35°C (95°F)
pressure	from 84 to 106.7 kPa
Case protection (non-operating condition)	IP31
Weight, not more than	550 g (19.4 oz)
Dimensions	60 x 35 x 230 mm (2 3/8" x 1 3/8" x 9")