



POLIMASTER[®]
Radiation Detection Technologies

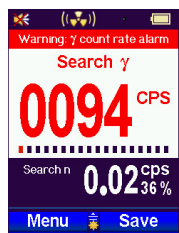


MULTIPURPOSE HAND-HELD RADIATION MONITOR

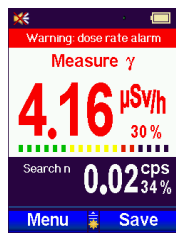
PM1401K-3E

PM1401K-3 series of radiation monitors comprises a wide range of all-in-one devices for radiation detection, dose rate and contamination measurements, spectrometry and radionuclide identification.

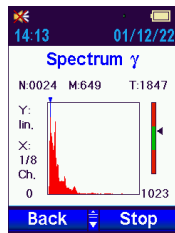
PM1401K-3E model is a simplified model without identification and ¹³⁷Cs activity measurement functions which is designed for fast and accurate detection of alpha, beta, gamma and neutron sources, as well as the measurement of alpha and beta radiation flux density and acquisition of gamma spectra.



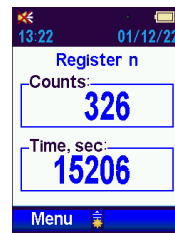
Search for γn radiation sources



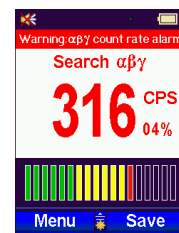
Dose rate measurement



Gamma spectra accumulation



Neutrons registration



Search for $\alpha\beta\gamma$ radiation sources

Applications

- Customs and border control
- HAZMAT and CBRNe teams
- Emergency services
- Police and security
- Industrial facilities
- First responders

Features

- Storage of up to 10000 events and 1000 spectra
- Audible, visual and external vibration alarm
- Shock and water resistant IP65 case
- USB communication with PC
- Built-in GPS module



PM1401K-3E

MULTIPURPOSE HAND-HELD RADIATION MONITOR

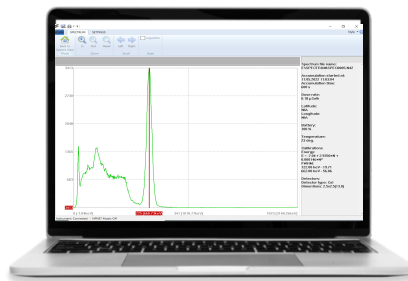


SPECIFICATIONS

Detector	gamma neutron	CsI(Tl); GM counter ⁶ LiF/ZnS
Gamma sensitivity	for ¹³⁷ Cs for ²⁴¹ Am	200 cps per μSv/h 2000 cps per μSv/h
Neutron sensitivity	for Pu-α-Be for thermal neutrons	0.15 cps·cm ² 5.0 cps·cm ²
Energy range	gamma (spectroscopy) gamma (measurement) neutron	25 keV to 3 MeV 15 keV to 15 MeV thermal to 14 MeV
Dose rate measurement range		0.1 μSv/h to 100 mSv/h
Dose rate measurement accuracy		±(15 + 0.0015 / Ĥ) %, where Ĥ is the measured dose equivalent rate value in mSv/h
Resolution		≤ 9 % FWHM at 0.662 MeV (¹³⁷ Cs)
Gamma radiation scintillation spectra acquisition		1024 channels
Flux density measurement range	alpha beta	15 to 10 ⁵ min ⁻¹ ·cm ⁻² 6 to 10 ⁵ min ⁻¹ ·cm ⁻²
Warm-up time	< 90 s	
Memory	10000 events, 1000 spectra	
Alarms	visual, audible, external vibration	
Communication	USB	
Power supply	2 AA alkaline or NiMH batteries	
Battery lifetime (normal radiation background, active alarms and LCD backlight < 5 min/24 h)	≥ 300 h	
Ingress protection		IP65
Drop test		0.7 m
Dimensions		262 × 60 × 65 mm
Weight		≤ 820 g
Operating conditions		
	– ambient temperature	–20 °C to 50 °C
	– atmospheric pressure	84 kPa to 106.7 kPa
	– relative humidity	up to 95 % at 35 °C



Neutron moderator for increasing sensitivity to neutron radiation



PM1401K-3 Desktop Software for adjusting instrument settings, downloading the operating history and analyzing the gamma spectra



Telescopic extension pole for remote operation and surveys in hard-to-reach areas

Polimaster Inc.
44873 Falcon Place, Suite 128
Sterling,
VA 20166, USA
phone: +1 703 525 5075
fax: +1 703 525 5079
info@polimaster.us

Polimaster Europe UAB
Ezero str. 4, Didziasalio k.,
Nemezio sen., LT-13264,
Vilnius district, Lithuania
phone: +370 5 210 2323
fax: +370 5 210 2324
info@polimaster.com

Polimaster Japan Co., Ltd.
AUBE2 5-177 Kuratsuki,
Kanazawa, Ishikawa Prefecture
920-8203 Japan
phone: + 81 076 201 8623
fax: + 81 076 201 8624
pacific@polimaster.jp