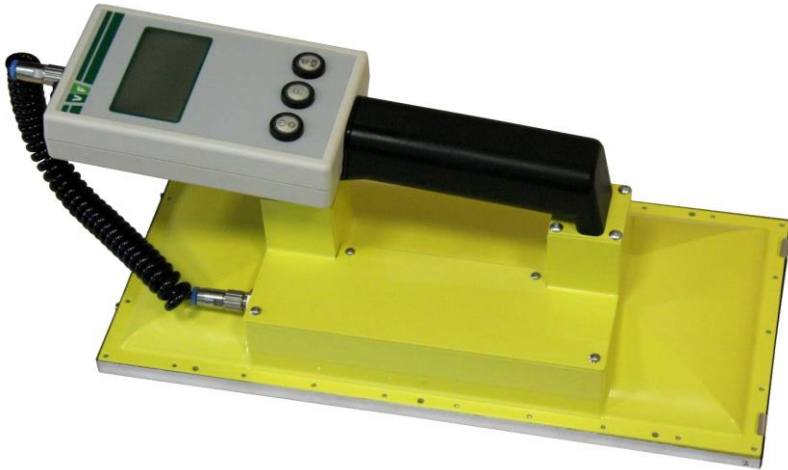


Portable Activity Meters PAM-525 series



The PAM-525 series meters are portable hand-held instruments intended for the measurement of surface contamination by alpha, beta and gamma emitting radionuclides.

Thanks to detector size it enables large areas to be quickly examined.

Purpose

The PAM-525 series meters are portable hand-held instruments intended for the measurement of surface contamination by alpha, beta and gamma emitting radionuclides – dependant on detector model. Thanks to detector size it enables large area to be quickly examined.

It can be used in many applications wherever contamination is expected and needs to be monitored: in nuclear power plants, re processing plants, the decommissioning and dismantling of nuclear facilities and the management of radioactive waste, in medical industry, in research and environmental applications. The surfaces of various objects can be measured, such as; walls, floors, tables, feet, clothing, etc.

Description

The meter has two basic components: the detection unit, and the control and display unit. Both units are connected by cable.

The detection unit is equipped with scintillation detector, which is integrated with two photomultiplier tubes (model PAM-525A, K1260 has one photomultiplier only) and processing electronics. The three layers of the light-tight foil and the detector window's protective grill provide proven resistance and lengthen the lifespan of the detector while still allowing good alpha and low energy beta particles penetration.

The handle is placed on top of the detection unit. The control and display unit is fixed to the handle. The graphic display, with high resolution, displays the count rate and/or activity as a figure and in bar-graph form. A battery status indicator is also displayed. Back illumination of the display can be activated if required; though the display is easily legible under standard light conditions without back illumination.

Main Advantages

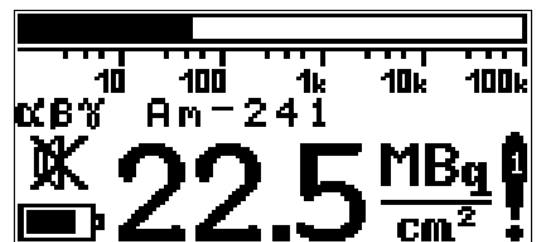
- Gas-less scintillation detectors
- Various types of detectors optimized to different types of radiation; one or two channel detectors available for various applications
- Two settable alarm levels
- High detection efficiency and homogeneity, thanks to two photomultipliers installed (except model K1260)
- User friendly, easy operation
- Long battery life

Standards and Certification

EN 60325 – Radiation Protection

Instrumentation – Alpha, beta and alpha/beta contamination meters and monitors

EN 61326-1 – Electrical equipment for measurement, control and laboratory use - EMC requirements



Measured values indicated on PAM-525D display

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Description

The control unit is equipped with three control buttons. With these buttons the unit, display backlight, and acoustic indication can be switched on/off; and the data display can be changed as well.

For each utilized channel the background level measurement can be launched manually and values stored in memory and then automatically deducted from the measurement results indicated on the display.

The display unit can indicate the cps value in the selected channel as figure (cps) and a logarithmic bar-graph. It can indicate contamination in Bq or Bq/cm² as well, corresponding to the selected nuclide from the predefined nuclides library. If contamination higher than a pre-set threshold is detected, the acoustic warning alarm will sound. One or two threshold levels can be set.

The use of low energy electronics gives an extended battery life while in operation. Battery life status is shown on the display. Both standard and rechargeable batteries can be used. The display unit power supply may be provided by the adaptor, which may also be used for recharging the batteries.

The meter's surface can be easily decontaminated.

The basic service software is used to set the basic parameters such as alarm levels, nuclide library, etc. The software is for a PC/notebook connected by a USB. The software comes as part of the delivery.

Models and Accessories

Name	Type	Radiation detected	Channel	Detector
PAM-525A	K1260	Alpha	one	ZnS(Ag)
PAM-525B	K1261	Alpha + Beta	one	Plastic scintillator
PAM-525C	K1262	Alpha / Beta	two	Plastic scintillator + ZnS(Ag)
PAM-525D	K1263	Alpha + Beta + Gama	one	Plastic scintillator
PAM-525E	K1264	Alpha / Beta + Gama	two	Plastic scintillator + ZnS(Ag)

Related products

K095X, K123X	Portable Activity Meters, PAM-100 / PAM-170 series
K092X, K116X	Floor Contamination Monitors, FloorScan-525 / FloorScan-1050 series
K101X	Hand-Foot Contamination Monitor, HF series
K118X	Hand Contamination Monitor, HM-4 series
K1382	FCM-02 Frisking Contamination Monitor



Flexible solutions

Specification

Detector type	plastic scintillator; ZnS(Ag)
Active area	525 cm ² (81.4 in ²)
Detector window	aluminized light-tight foil
Covering grill	bee-type, hexagonal transmission 78 %
Reference nuclides	²⁴¹ Am, ²⁰⁴ Tl, ¹³⁷ Cs
Energy range for beta	¹⁴ C 4 2.5 MeV
Typical efficiencies *	up to 50 % for ²⁴¹ Am up to 12 % for ¹⁴ C up to 57 % for ³⁶ Cl up to 50 % for ¹³⁷ Cs
Display unit	graphic display 128 x 64 dots
Units displayed	cps, cpm, Bq, Bq/cm ²
Parameters setting	service software USB interface
Power supply	4x AA batteries or mains adaptor 12/24 VDC
Batteries lifetime	approx. 60 hours
Dimensions (W x H x D)	176 x 162 x 460 mm (7 x 6 ³ / ₈ x 18 ¹ / ₈ in)
Weight	< 2.4 kg (5.3 lb)
Temperature range	-10 4 +40 °C (+14 4 104 °F)

* availability and values depends on the model



PAM-525 with detector's protective cover

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