



VF NUCLEAR



NUCLEAR POWER PLANTS



WASTE MANAGEMENT



CALIBRATION LABORATORIES



RESEARCH CENTRES



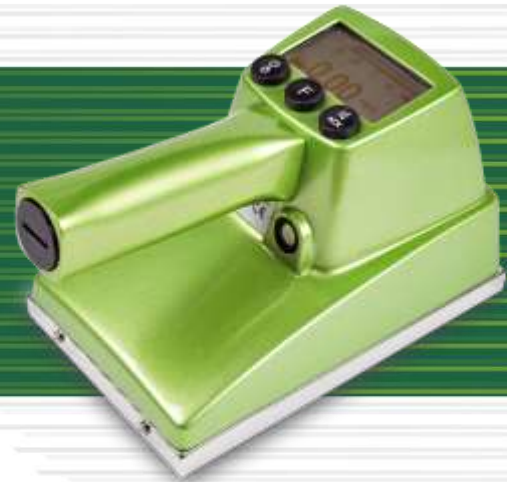
INDUSTRY & MANUFACTURING



NUCLEAR MEDICINE

PAM-170

PORTABLE ACTIVITY METER



MAIN ADVANTAGES

- Gasless detector
- Fast replacement of foil
- Compact and lightweight design
- User friendly
- High sensitivity, uniform response
- Two settable alarms
- Easy decontamination

PURPOSE

The PAM-170 series activity meters are portable hand-held instruments intended for the measurement of surface contamination.

Models of monitors A, B, C have **suppressed gamma sensitivity**. They are suitable where the user needs to properly distinguish alpha and / or beta contamination. Models:

- **A** measures only alpha contamination and is therefore designed especially for plants for the production and / or processing of nuclear fuel, uranium mining and / or processing.
- **B** has the highest sensitivity to beta contamination and is suitable where alpha contamination does not occur.
- **C** can distinguish between alpha and beta contamination, and the monitor has slightly lower beta sensitivity than B.

Models B and C are suitable for nuclear power plants, where the background from gamma radiation is increased variable.

Monitor models D and E have **increased gamma sensitivity**. Models:

- **D** is intended for workplaces with virtually no beta contamination. It is suitable for nuclear medicine workplaces where Tc-99m radionuclide and possibly others are used.
- **E** measures all types of contamination. It is suitable for training or experimental workplaces. Not suitable for nuclear power plants.

The meter is designed as a simple, user-friendly instrument to facilitate ease of use.

The graphic display shows the count rate or activity as a digital display and as a bar-graph. Incoming pulses are audible by means of a sounder, which can be switched on/off by push button. Communication with an external PC is available using a serial data link through a mini USB connector. This is intended for service purposes.

To carry the monitor you can use a portable carrying case that is included in the delivery. Optional can be also ordered an strap.

DESCRIPTIONS

Name	1. channel	2. channel
PAM-170A	alpha	-
PAM-170B	alpha + beta	-
PAM-170C	beta	alpha
PAM-170D	alpha + beta + gamma	-
PAM-170E	beta + gamma	alpha

SPECIFICATION

Detector type	plastic scintillator
Active area	170 cm ²
Dimensions (W × H × D)	(130 × 129 × 226) mm
Weight	< 1,4 kg with batteries
Power supply	2 pcs alkaline or rechargeable C size batteries
Battery life	approx. 120 hours (without back illumination)
Temperature range	from -20 to +40 °C
Humidity range	max. 90% noncond.
Units	cps, cps/cm ² , Bq, Bq/cm ²

OPTIONAL ACCESSORIES

Variant design	Name
1-1180-00005	Shoulder strap
PAM-100	Portable Activity Meter
PAM-525	Portable Activity Meter
SFP-100	Smart Frisking Probes
FCM-11	Frisking Contamination Monitor

RELATED PRODUCTS

EXAMPLE OF RADIOMETRIC PARAMETERS

Model	Channel	Radionuclide	Efficiency [%]	Detection threshold [Bq/cm ²]
PAM-170A	α	²⁴¹ Am	41	0,03
PAM-170B	α	²⁴¹ Am	43	0,08
	β	⁹⁰ Sr+ ⁹⁰ Y	44	0,06
PAM-170C	α	²⁴¹ Am	44	0,03
	β	⁹⁰ Sr+ ⁹⁰ Y	34	0,07
PAM-170D	α	²⁴¹ Am	42	0,18
	β	⁹⁰ Sr+ ⁹⁰ Y	55	0,10
	γ	¹³⁷ Cs	45	0,11
PAM-170E	α	²⁴¹ Am	42	0,04
	β	⁹⁰ Sr+ ⁹⁰ Y	47	0,13
	γ	¹³⁷ Cs	38	0,15