

Personal Dosimeters

PM1203M Personal Dosimeter



The PM1203M dosimeter is a multipurpose professional instrument designed for continuous 24 hour a day measuring of the ambient dose equivalent (DE) $H^*(10)$ and dose equivalent rate (DER) $H^*(10)$ of gamma radiation. The high sensitivity of the dosimeter allows registering the least variations of the natural radiation background. Such function of the dosimeter as possibility to preset DE and DER alarm thresholds ensures timely alert of a user about dangerous irradiation level. In cases when the radiation intensity exceeds the upper level of DER measurement the LCD of the dosimeter shows the warning "HI" sign. Additionally the dosimeter is having the special mode of starting the measurement time of the DER, thus making it possible to use the dosimeter both for performing continuous radiation control and various kinds of radiation monitoring, i.e. when it is necessary to take and register the control DER measurements. Up to 100 histories including all measurement results taken with the dosimeter as well as the information of the threshold exceeds are stored in the non-volatile memory of the dosimeter and transmitted to a PC.

Specifications:

Detector	Geiger-Muller tube
Dose equivalent rate measurement range	0,1 mSv/h - 2000 mSv/h
Dose equivalent rate indication range (DER)	0.1 mSv/h - 2000 mSv/h
DER threshold range [Step]	0.1 - 1999.99 mSv/h 0.01
Dose equivalent measurement range $H^*(10)$	0.01 - 9999 mSv
DE threshold range [Step]	0.01 - 9999.999 mSv 0.001
Range of measurement time of dose accumulation	1 - 9999 h
Maximum permissible intrinsic relative error of DER measurement (H - DER value in mSv/h)	$\pm (15+1.5/H) + 0.0025H$ % $\pm 20\%$
Maximum permissible intrinsic relative error	
Energy response relative to 0,662 MeV (Cs-137) within energy range:	$< \pm 25\%$ $< \pm 15\%$
0.06 - 0.662 MeV	
0.662 - 1.5 MeV	
Energy range	0.06 - 1.5 MeV
Response time, no more than	10 s
Power supply	2 batteries V357
Battery discharge indication (partial and critical)	LCD indication
Operating temperature range	from -15 up to +60 °C
Additional functions	PC communication mode
Dimensions	125 x 42 x 24 mm
Weight (with batteries)	90 g

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