



FEATURES

- direct measurement of Hp(10) and Hp(3) over the entire energy range
- instant readout
- extremely easy readout process
- passive operation
- not sensitive to EM and RF interference
- operation at high dose rates
- operation at pulsed fields

DIS-1H3

Direct Ion Storage Dosimeter

The RADOS DIS-1H3 personal dosimeter is based on an ionisation chamber combined with a modern electronic Direct Ion Storage (DIS) memory cell. The Ion chamber is widely used as a reference detector in radiation detection and is now available in everyday dosimetry applications.

The DIS-1H3 dosimeter could be described as a passive electronic TLD or Film badge, which can be read infinitely and non-destructively without any loss of dose information. This unique feature allows the user of the DIS-1H3 to instantly read his/her accumulated doses whenever necessary.

The DIS-1H3 dosimeter has a small, lightweight, rugged and watertight construction, which makes the DIS-1H3 reliable and easy to use.

The radiological range of the DIS-1H3 covers the entire Hp (10) and Hp (3) photon and beta energies without any compromises. The wide dose and energy range, the ability to operate in pulsed fields and the performance at high dose rates make DIS-1H3 an ideal device for all kinds of radiation dosimetry applications. The DIS-1H3 allows for the detection of heavy, high-energy ions and its immunity to any external interference is unequalled. There are no deviations in the dose readings even at very high EM or RF fields.



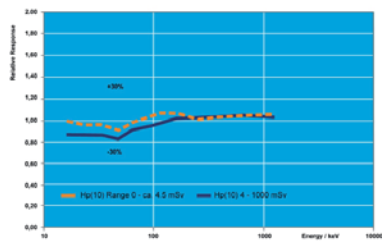
health physics

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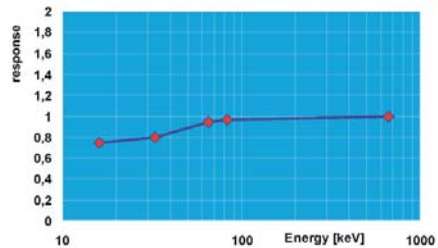
Featuring:



TECHNICAL SPECIFICATIONS:		
Physical Characteristics	<ul style="list-style-type: none"> detector type: three TMDIS (Direct Ion Storage) detectors and two MOSFET detectors sensitive to: gamma-, x-ray and high energy beta insensitive to neutrons (<5%) 	
	Hp(10):	Hp(3):
Energy range:	15 keV-9 MeV	photons: 15 keV and higher beta: $E_{\text{mean}} \geq 0.8 \text{ MeV}$
Dose measurement range:	1 μSv to 1 Sv (0.1 mrem to 100 rem) partially up to 40 Sv (4000 rem) ¹⁾	10 μSv to 1 Sv (1 mrem to 100 rem) partially up to 40 Sv (4000 rem) ¹⁾
Effective Dose range:	10 μSv to 1 Sv (1 mrem to 100 rem) partially up to 40 Sv (4000 rem) ¹⁾	100 μSv to 1 Sv (10 mrem to 100 rem) partially up to 40 Sv (4000 rem) ¹⁾
Calibration accuracy:	$\pm 5 \%$ at 1 mSv ¹³⁷ Cs	$\pm 10 \%$ at 10 mSv ¹³⁷ Cs
Energy response:	$\pm 30 \%$ between 15 keV-9 MeV	$\pm 30 \%$ for photons 15 keV and higher -40% for ⁹⁰ Sr/ ⁹⁰ Y
Directional response:	$\pm 20 \%$ up to 60° at 65 keV	$\pm 20 \%$ up to 60° at 65 keV
	¹⁾ When calibrated after every 10 Sv of accumulated dose	¹⁾ When calibrated after every 10 Sv of accumulated dose
Functional Characteristics	<ul style="list-style-type: none"> recording of official Hp(3) dose memory: <ul style="list-style-type: none"> - calibration date - dose reset dates - user identification 	
Mechanical Characteristics	<ul style="list-style-type: none"> casing: Resistant to static discharge, RF-interference and magnetic fields and EMP withstands multiple 1 meter drops onto concrete an anodized aluminum snap-on holder Size: 41 x 44 x 12 mm, with holder 47 (95 with strap) x 49 x 13 mm (1.61 x 1.73 x 0.47 in , with holder 1.85 (3.74 with strap) x 1.93 x 0.51 in) weight: 25 g (0.88 oz) , with holder 43 g (1.52 oz) 	
Environmental Characteristics	<ul style="list-style-type: none"> temperature range: -10 °C ...+50 °C (14°F...122°F) enclosure class: IP 67 (waterproof) 	



Typical energy response of personal dose equivalent Hp(10)



Typical energy response of personal dose equivalent Hp(3)



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