

Product Datasheet

SS330/335/340

Dose Rate Probes

The SS330 probe is an excellent general purpose end window compensated pancake Geiger-Müller probe with H*(10) energy compensation, which permits reliable measurements from ambient background up to 1 mSv/hr.



SS330

SS335

The SS335 probe is functionally identical to the SS330, but with a different probe geometry.

Specifications

General	
Operating Voltage	550 V
Measurement Range	0.01 μ Sv/hr - 1 mSv/hr
Plateau Length	150 V minimum
Dead Time	100 μ s
Temperature Range	-10°C to +50°C
Gamma Sensitivity	Typically 5 cps/ μ Sv/hr
Energy Sensitivity	H*(10) for 20 keV - 1.5 MeV
Housing Connector	MHV
Dimensions	\varnothing 3" x 10" x 2.5" (70 x 254 x 64 mm)
Active Area	2 in ² (15.5 cm ²)
Weight	11 oz (300 g)

Efficiencies

(Listed as percentage of 2π emission rate)

Nuclide	Emission	Efficiency
²⁴¹ Am	α	29.1%
²³⁸ Pu	α	26.6%
Nat U	α	63.5%
⁹⁰ Sr/ ⁹⁰ Y	β	56.7%
¹⁴ C	β	19.4%
³⁶ Cl	β	59.1%
²³⁸ Pu	β	25.8%
⁶⁰ Co	β	36.2%
¹³⁷ Cs	β	50.6%

SS340

Dose Rate Probe

The SS340 is a side-window Geiger-Müller probe for ambient gamma radiation measurement to H*(10).

Dose-rate range is 0 - 2 mSv/hr and energy range 45 keV - 2 MeV.



Specifications

General	
Operating Voltage	450 V
Dose Rate Range*	0.1 μ Sv/hr - 1 mSv/hr
Plateau Length	200 V minimum
Temperature Range	-10°C to +50°C
Gamma Sensitivity	Typically 2 cps/ μ Sv/hr
Energy Range	H*(10) for 20 keV - 1.5 MeV
Connector Type	MHV
Dimensions	\varnothing 1" x 5" (25 x 135 mm)
Active Area	40 mm tube length
Weight	100 g

*Dose rate probes are set up to read in μ Sv/hr by default. For measurements in rem/hr, please specify at point of order.

Efficiencies

(Listed as percentage of 2π emission rate)

Nuclide	Emission	Efficiency
²⁴¹ Am	α	29.1%
²³⁸ Pu	α	26.6%
Nat U	α	63.5%
⁹⁰ Sr/ ⁹⁰ Y	β	56.7%
¹⁴ C	β	19.4%
³⁶ Cl	β	59.1%
²³⁸ Pu	β	25.8%
⁶⁰ Co	β	36.2%
¹³⁷ Cs	β	50.6%

Southern Scientific Limited
Scientific House, The Henfield Business Park
Shoreham Road, Henfield, BN5 9SL, UK

E-mail: info@southernscientific.co.uk

Tel: +44 (0)1273 497600

Fax: +44 (0)1273 497626

www.southernscientific.co.uk

