

Product Datasheet

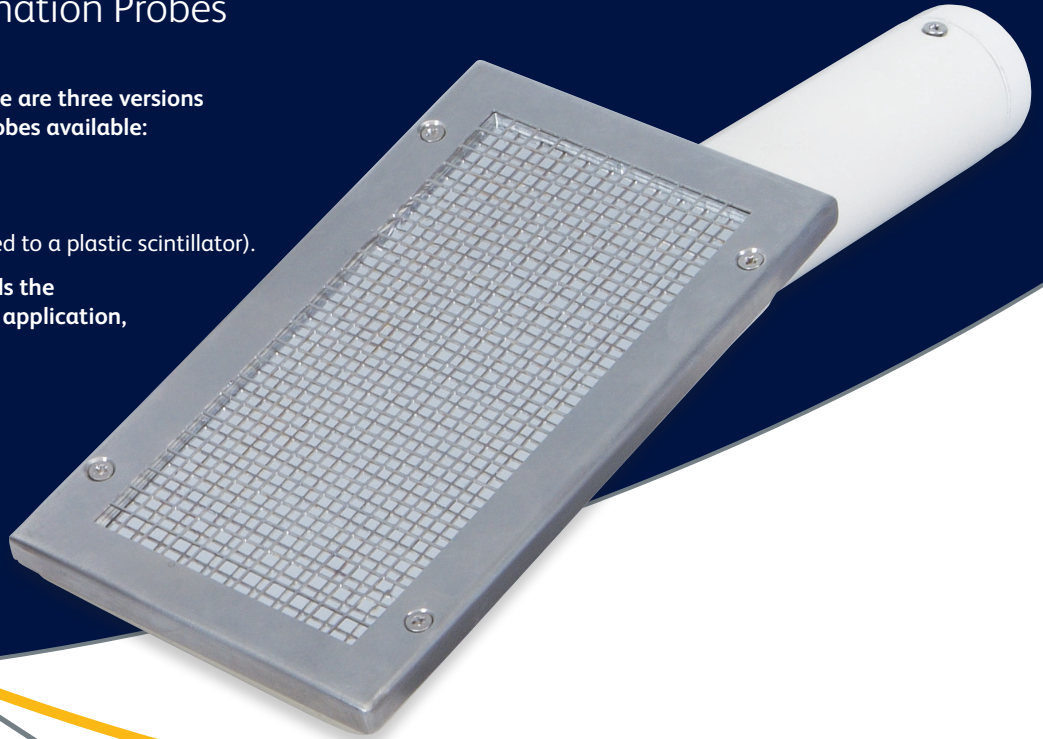
SS600

Alpha / Beta Contamination Probes

Equivalent to the NE BP6 / AP2, there are three versions of these 16 in² (100 cm²) window probes available:

- Alpha only (Zinc sulphide layer).
- Beta only (Plastic scintillator).
- Alpha / Beta (Zinc sulphide bonded to a plastic scintillator).

The use of a plastic scintillator avoids the traditional use of anthracene in this application, with a comparable response.



Alpha

SS600 A	
Window Area	100 cm ²
Typical Alpha Efficiency ²⁴¹ Am % of surface emission (2π)	30
Background Response	Less than 1 cps
Mass	500 g

Beta

SS600 B	
Window Area	100 cm ²
Beta Efficiency ¹⁴ C % of surface emission (2π)	8
Beta Efficiency ⁹⁰ Sr/Y % of surface emission (2π)	8
Background Response	Less than 20 cps
Mass	500 g

Alpha / Beta

SS600 AB	
Window Area	100 cm ²
Typical Efficiency ²⁴¹ Am % of surface emission (2π)	30
Typical Efficiency ⁶⁰ Co % of surface emission (2π)	15
Typical Efficiency ⁹⁰ Sr/Y % of surface emission (2π)	30
Background Response	Less than 20 cps
¹³⁷ Cs Response cps/μSv/hr	50
Mass	500 g

SS700

Alpha/Beta Contamination Probes

Similar to the SS600 probe, the SS700 series of three ergonomically balanced probes has a square window of 8 in² (50 cm²) and a 64° angled handle.



Alpha

SS700 A	
Window Area	50 cm ²
Typical Alpha Efficiency ²⁴¹ Am % of surface emission (2π)	30
Background Response	Less than 1 cps
Mass	500 g

Beta

SS700 B	
Window Area	50 cm ²
Beta Efficiency ¹⁴ C % of surface emission (2π)	40
Beta Efficiency ⁹⁰ Sr/ ⁹⁰ Y % of surface emission (2π)	40
Background Response	Less than 10 cps
Mass	500 g

Alpha / Beta

SS700 AB	
Window Area	50 cm ²
Typical Efficiency ²⁴¹ Am % of surface emission (2π)	30
Typical Efficiency ⁶⁰ Co % of surface emission (2π)	15
Typical Efficiency ⁹⁰ Sr/ ⁹⁰ Y % of surface emission (2π)	30
Background Response	Less than 10 cps
¹³⁷ Cs Response cps/μSv/hr	25
Mass	500 g

Efficiencies (SS600 and SS700)

Alpha/Beta, α background 1.9 cps, β background 7.5 cps.
Listed as percentage of 2π emission rate.

Nuclide	Emission	Efficiency
²⁴¹ Am	α	39.3%
²³⁸ Pu	α	42.0%
Nat U	α	43.1%
⁹⁰ Sr/ ⁹⁰ Y	β	38.4%
¹⁴ C	β	1.5%
¹⁴⁷ Pm	β	36.9%
²³⁸ Pu	β	4.7%
⁶⁰ Co	β	14.0%
¹³⁷ Cs	β	28.8%

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