Product Datasheet

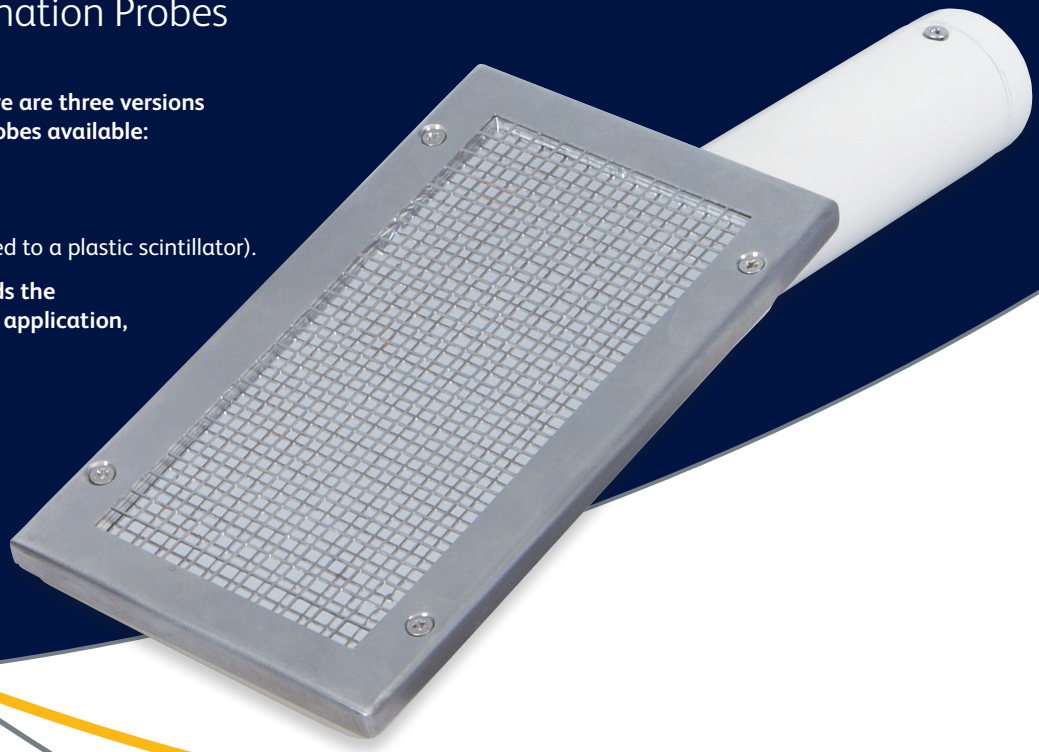
SS600

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 cm²
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 cm²
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

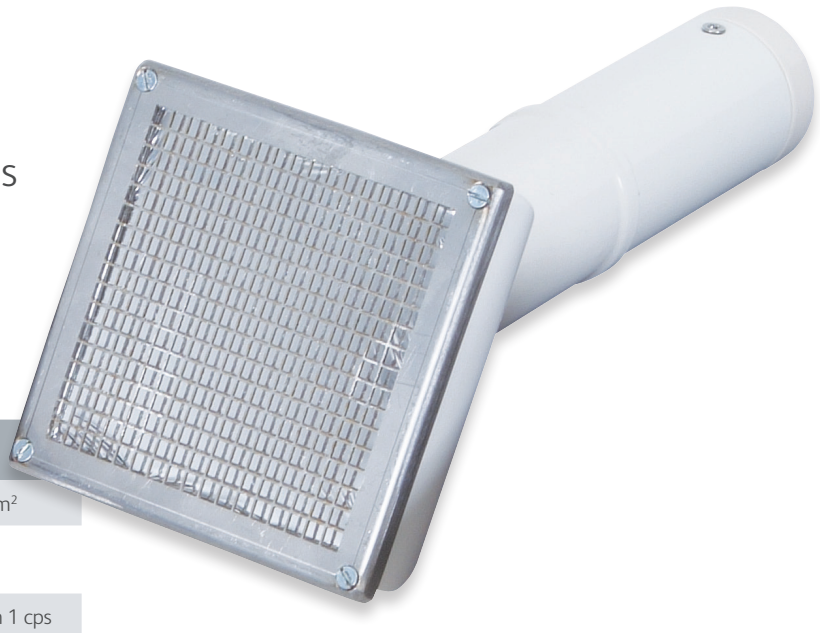
Alpha / Beta

SS600 AB	
Window Area	100 cm²
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 cm²
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 cm²
Beta Efficiency ^{14}C % of surface emission (2π)	40
Beta Efficiency ^{90}Sr/Y % of surface emission (2π)	40
Background Response	Less than 10 cps
Mass	500 g

Alpha / Beta

SS700 AB	
Window Area	50 cm²
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 10 cps
^{137}Cs Response cps/µSv/hr	25
Mass	500 g

Efficiences (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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