

# Product Datasheet

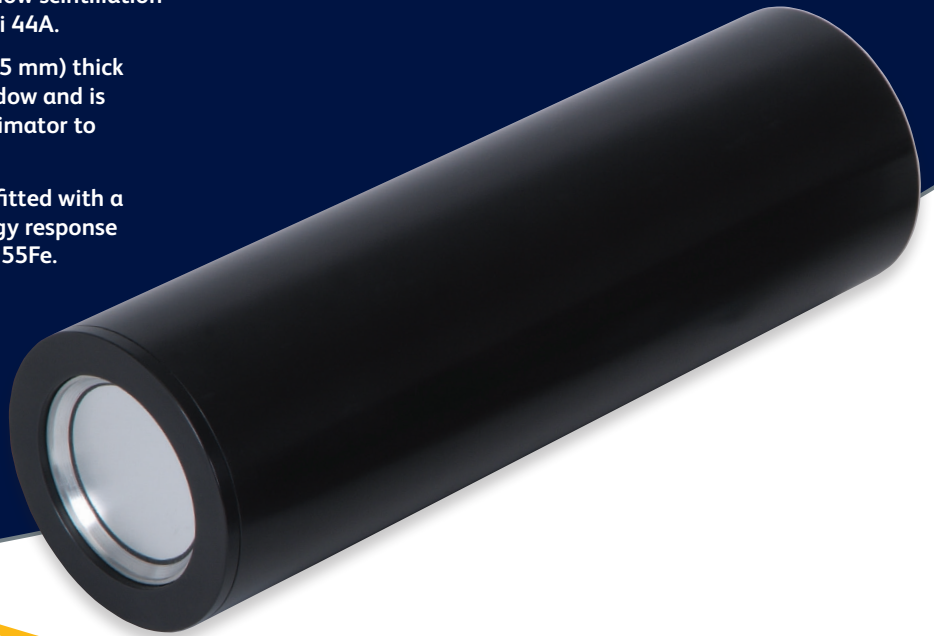
# SS404 Al and Be

## Scintillation Probes

The SS404 Al is a thin-crystal NaI(Tl) end-window scintillation probe designed to be an equivalent to the Mini 44A.

This probe incorporates a  $\varnothing 1.3" \times 0.1"$  (32 x 2.5 mm) thick NaI(Tl) crystal mounted on an aluminium window and is fitted with an internal 0.1" (3.15 mm) lead collimator to reduce background counts.

The SS404 Be is similar to the SS404 Al but is fitted with a beryllium window, which extends the low energy response down to 5 keV, making it suitable for counting <sup>55</sup>Fe.



## Specifications

SS404 Al	
Operating Voltage	Typically 650 V
Detector Crystal	$\varnothing 1.25" \times 0.098"$ (32 x 2.5 mm) NaI
Window Density	2.7 mg/cm <sup>2</sup>
Energy Response	15 keV - 250 keV
Housing Connector	MHV
Dimensions	$\varnothing 2" \times 7"$ (54 x 185 mm)
Weight	820 g
Operating Temperature	10°C to +50°C
Operating Humidity	Up to 95% RH non-condensing

SS404 Be	
Operating Voltage	Typically 650 V
Detector Crystal	$\varnothing 1.25" \times 0.1"$ (32 x 2.5 mm) NaI
Window Density	1.8 mg/cm <sup>2</sup>
Energy Response	5 keV - 250 keV
Housing Connector	MHV
Dimensions	$\varnothing 2" \times 7"$ (54 x 185 mm)
Weight	820 g
Temperature	10°C to +50°C
Operating Humidity	Up to 95% RH non-condensing

## Efficiencies

(Listed as percentage of  $2\pi$  emission rate)

Nuclide	Energy	SS404 Al Efficiency	SS404 Be Efficiency
<sup>55</sup> Fe	5.9 keV	6.1%	31.4%
<sup>238</sup> Pu	16.3 keV	98.7%	99.1%
<sup>129</sup> I	31.5 keV	84.9%	91.5%
<sup>241</sup> Am	58.8 keV	117%	117.3%
<sup>57</sup> Co	120 keV	82.7%	83%
<sup>137</sup> Cu	662 keV	17%	18.3%
<sup>60</sup> Co	1200 keV	11.4%	12.4%

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