

ALPHA BETA SAMPLE COUNTING SYSTEM

Model # STG-ABS44

APPLICATION: Model **STG-ABS44** is especially well suited to counting Alpha & Beta emissions from air sampler filters.

The **STG-ABS44** Alpha Beta Scintillation System combines Alpha and Beta Dual Scintillation Detector plus TM-4 drawer system for sample containment. In this detection system, the protective window and grill are deleted to enhance sensitivity to Alpha and low energy Beta radiation.

Stainless steel drawer and base plate for stability and easy cleaning.

The sensitivity of the **STG-ABS44** to 5MeV Alphas is typically 80-85% of 2π . Alpha Background can be less than one count per minute. Sample cavity is 4 1/16" diameter x 3/16" deep. Allows 4" sample diameter x 3/16" thick sample size.

Windowless operation, with light-tight housing and automatic HV. Cutoff when drawer is opened.

SPECIFICATIONS:

Dimensions: 7" W x 14" D x 16" H.
Weight: 16 lbs.
Shipping Weight: 28 lbs.



Figure 1: STG-ABS44

	Alpha	Beta
Photomultiplier Tube:	5" dia. 10-stage.	
Scintillator:	ZnS(Ag).	Plastic Scintillator, 0.02" thick.
Plateau:	200 Volt long.	200 Volt long.
Slope:	Less than 5% per 100V.	
Efficiency:	Greater than 75% of 2π .	Cs ¹³⁷ 75% pf 2π . Sr ⁹⁰ Y ⁹⁰ 100% of 2π . C ¹⁴ is 24% of 2π . Tc99 is 35% of 2π .

Alpha Beta Dual Scintillation detector 4" diameter. The 90cm² face of this probe allows shorter count times plus high sensitivity. Alpha background is in the order of several counts per hour.

TA

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