

ALPHA BETA SAMPLE COUNTING SYSTEM

STG-ABS-42 SERIES

Model - - STG-ABS-42 - STG-ABS-42S ~ STG-ABS-42P

FEATURES:

STG-42P:

PORTABLE (NOT SHOWN) (*STG-ABS-42P*)

- LIGHTWEIGHT, HAND CARRY

BENCH TOP (PICTURED) (*STG-ABS-42*)

- STANDARD 2" DRAWER SYSTEM, LIGHTWEIGHT –
NO SHIELDING

BENCH TOP (PICTURED) (*STG-ABS-42S*):

- 2" LEAD **SHIELDED** DRAWER SYSTEM

STG-ABS-42 SERIES

- COMBINES ALPHA AND BETA DUAL SCINTILLATION DETECTORS
- DRAWER SYSTEM FOR SAMPLE POSITIONING.
- WINDOWLESS OPERATION WITH LIGHT-TIGHT HOUSING
- AUTOMATIC HV CUTOFF WHEN DRAWER IS OPENED.
- DESIGNED FOR EASY CLEANING
- PLANCHET PACK OF 50 SHEETS
- **IP 52**

ELECTRONICS – PRS-2F

- 5 DECADE RANGE ELIMINATES NEED FOR AUTOMATIC RANGE CHANGER
- DUAL ALARMS: ALPHA & BETA, INDIVIDUALLY SETTABLE
- BATTERY OPERATED – OPTIONAL RECHARGEABLE BATTERIES
- USER SETTABLE COUNT TIME
- UNITS USER SETTABLE: cps, cpm (Bq based on calibration constant)



**STANDARD DRAWER SYSTEM
NO SHIELDING
BENCH TOP
STG-ABS-42**



**DRAWER SYSTEM WITH
2" SHIELDING
STG-ABS-42S**

DESCRIPTION:

The *STG-ABS-42* Series Alpha Beta Scintillation System combines Alpha and Beta Dual Scintillation Detector plus drawer system for sample positioning. In this detection system, the protective window and grill are deleted to enhance sensitivity to Alpha and low energy Beta radiation.

Sensitivity: of the *STG-ABS-42* to 5 MeV Alphas is typically 80%-85% of 2 Pi.

Background: can be less than one count per minute.

Sample Diameter: 2"

Sample Cavity Depth: (2) options: (1) 0.4". (1) 3/16" user specified.

Alpha / Beta Dual Scintillation Detector: 4" diameter. The 90 cm² face of the probe allows shorter count times plus high sensitivity.

APPLICATION:

STG-ABS-42 Series is especially well suited to counting Alpha & Beta emissions from air sampler filters.



TECHNICAL ASSOCIATES

7051 ETON AVENUE, CANOGA PARK, CALIFORNIA 91303

PHONE: 818-883-7043 | FAX: 818-883-6103

SALES@TECH-ASSOCIATES.COM | TECH-ASSOCIATES.COM | USNUCLEARCORP.COM

DIVISION OF



USNUCLEARCORP
OTCOB-UCLE

ALPHA BETA SAMPLE COUNTING SYSTEM

STG-ABS-42 SERIES

Model - - STG-ABS-42 - STG-ABS-42S ~ STG-ABS-42P

SPECIFICATIONS: STG-ABS-42 DETECTOR

	Alpha	Beta
Photomultiplier Tube:	2" (51mm) dia. 10-stage.	
Scintillator:	ZnS(Ag).	Plastic Scintillator, 0.02" thick.
Plateau:	200 Volt long.	
Slope:	Less than 5% per 100V.	
Efficiency:	Greater than 75% of 2 Pi. Pu ²³⁹ & Am ²⁴¹	Cs ¹³⁷ 75% pf 2 Pi. Sr ⁹⁰ Y ⁹⁰ 100% of 2 Pi. C ¹⁴ is 24% of 2 Pi. Tc99 is 35% of 2 Pi.
Typical Background	Less than 3 cpm	Less than 60 cpm

Weight & Dimensions – Standard Drawer System ~ STG-ABS-42

Dimensions: 7" wide x 14" deep x 16" high

Weight: 16 lbs

Weight & Dimensions – 2" Shielding Drawer System ~ STG-ABS-42S

Dimensions: 16" wide x 12" deep x 15" high

Weight: 90 lbs

SPECIFICATIONS - PRS-2F ELECTRONICS

- DUAL DISPLAY - ALPHA & BETA
- BATTERY OPERATION
- DUAL ALARMS: ALPHA & BETA, INDIVIDUALLY SETTABLE
- 2 SEPARATE SCALE FACTORS FOR RATE & INTEGRATED UP TO 30 MINUTES
- HIGH VOLTAGE 400V-1200V DC
- 0.1-99 sec TIME CONSTANT FOR RATEMETER
- 8 DIGIT LCD BRIGHT BACK LIT DISPLAY
- USER SETTABLE UNITS: cps, cpm, Bq
- RS-232 SERIAL OUTPUTS
- RECHARGEABLE BATTERIES WITH AC ADAPTER



← ALPHA

← BETA



TECHNICAL ASSOCIATES

7051 ETON AVENUE, CANOGA PARK, CALIFORNIA 91303

PHONE: 818-883-7043 | FAX: 818-883-6103

SALES@TECH-ASSOCIATES.COM | TECH-ASSOCIATES.COM | USNUCLEARCORP.COM

DIVISION OF



USNUCLEARCORP

OTCOB-UCLC

ALPHA BETA SAMPLE COUNTING SYSTEM

STG-ABS-42 SERIES

Model - - STG-ABS-42 - STG-ABS-42S ~ STG-ABS-42P

SPECIFICATIONS - PRS-2F ELECTRONICS continued

Detector: Mates scintillation detectors
Detector connector: BNC - Standard
Detector Bias Supply: 400 V DC to 1200 V regulated and filtered - other voltage levels-optional.

Alarm: Alarm circuit with red LED and audio alarm
Dual Alarms User Settable - ALPHA & BETA

Display: Reads out 2 separate signals simultaneously from detector:
ALPHA & BETA
Energy discrimination

Power: Batteries: in-place rechargeable batteries.

Battery Life: 100 hours

Construction: All plug in circuit cards, essentially no wires. Rugged, lightweight

WEIGHT & DIMENSIONS – PRS-2F ELECTRONICS:

Dimensions: 3-1/4" H, 4-1/4 W, 7-1/4" long excluding probe holder and handle.

Weight: 2 lbs. 4oz.

Options: Other connectors - MHV etc

Digital Display	RATEMETER	SCALER INTEGRATER
Range	6 digit LCD	8 digit LCD
User Settable Scale Factor	0.1 - 20,000 count/sec	0-10,000,000 Total counts
Time Constant	0.01 to 99 seconds Display Refresh Rate	Free Running 1 sec – 30 minutes

TOTAL WEIGHT STG-ABS-42 ~ DETECTOR, DRAWER & PRS-2F

Standard System: 28 LBS ~ STG-ABS-42

2" Lead Shielded System: 90 LBS ~ STG-ABS-42S



TECHNICAL ASSOCIATES

7051 ETON AVENUE, CANOGA PARK, CALIFORNIA 91303

PHONE: 818-883-7043 | FAX: 818-883-6103

SALES@TECH-ASSOCIATES.COM | TECH-ASSOCIATES.COM | USNUCLEARCORP.COM

DIVISION OF



USNUCLEARCORP

OTCOB-UCLC