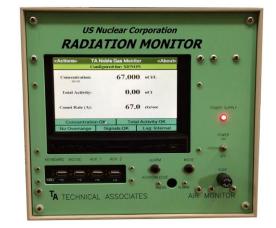
# LOW BACKGROUND GAS FLOW BETA COUNTING SYSTEM

Model ~ SFM-9V

## **FEATURES:**

- EXCEPTIONAL PLATEAU & HIGH EFFICIENCY
- PROPORTIONAL OPERATION
- INCLUDES: SAMPLE DETECTOR & GUARD DETECTOR
- SMART ELECTRONICS & COLOR MONITOR
- > 1" DIAMETER SAMPLE CAPACITY
- MANUAL & PRESET COUNT TIME (OPTIONAL PRESET COUNT)
- SELECTABLE ALARM
- ➢ WINDOWLESS STANDARD
- ➢ SERIAL RS-232 OR USB OUTPUT



#### SFM-9V ELECTRONICS

### **APPLICATION:**

- Model SFM-9V Low Background Gas Flow Counting System is engineered to produce high counting efficiencies where extremely low levels of Beta radioactivity are being measured.
- It is ideal for applications in biological, physical, and chemical research, or in environmental sampling for health physics and public health services.
- > The instrument includes a sample tray holder which accepts samples up to 1" in diameter.
- > This instrument is designed for ease of maintenance.

### **DESCRIPTION:**

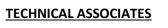
#### Model SFM-9V Includes:

- Guard Detector
- Adjustable power supplies
- Preset time mode with auto-cycling capacity
- Gas flow proportional detector
- Two single channel analyzers
- On-screen scaler read-out
- All cabling & hoses included
- Presettable relays feature operating alarm, interlock, flow deflector, or other external control.
- Lead shield around detectors to reduce background

ΊA

The combination of the full  $2\pi$  detectors and the precision collector wires provide the key to the high counting efficiency.

Discriminator mode & Dual Single Channel Analyzer module have built in pre-amplifiers for Beta counting.



Divisions of US NUCLEAR CORP



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SFM-9V PROPORTIONAL DETECTOR ASSEMBLY

# LOW BACKGROUND GAS FLOW BETA COUNTING SYSTEM

Model ~ SFM-9V

## **SPECIFICATIONS:**

Sample Size:	<b>1</b> " (26mm) Diameter, Depth to 1/4" (6mm).
Sample Holder Size:	Will hold Planchet Size 20-25mm
Sample Chamber:	1 1/8" diameter Low Background Gas Flow Detector Probe with Drawer.
Guard Chamber:	Gas Flow Proportional Detector, used in Coincidence Mode with Sample Chamber to detect-and-reject Cosmic ray counts.
Collector:	1mil stainless steel loop.
Count Yield:	Windowless: Betas of K-40 30% to 50% Gamma sensitivity is low and is inversely proportional to Gamma energy.
Background:	<3 cpm
Efficiency:	30% (K-40 Beta) or better
High Voltage:	0-2500 V with adjustable potentiometer (2).
Coincidence Analyzer:	Coincidence & Anticoincidence Modules
Shielding:	80mm thick Lead (2mm AI & 1mm Cu)
Display Range:	0-20,000 counts, positive & negative polarity,
	(2) on-board counters, discriminator (1V)
Dimensions:	Electronics: 21"W x 12"H x 16"D
	Detectors, Drawer and Shield: 18"W x 15"H x 12"D
Power Requirements:	115V 50-60 Hz ( <b>Optional</b> 230V 50 or 60 Hz).
Readout:	7" Color Monitor.
Needle Valve:	Needle Valve for Flow Control (2)
Interface:	Serial RS-232 or USB output.
Warranty:	1 year
Accessories:	Shipment includes all cables and hoses for standard operation.





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