

SE520EON

Flow Cytometer

2 Lasers, 6 Colors



Stratedigm's flow cytometry automation suite has been one of the most exemplary, comprehensive, and reliable FC systems that I have dealt with in my 12-year experience. At the core of each of our FC systems is an SE520 and they have been perfect for us. Their high sensitivity and performance have been crucial to our applications.

*Shawn Ramsaroop
Senior Research Scientist
Aperture Bio*



Power Within Your Budget

The first family of Stratedigm analyzers were designed specifically for essential applications. Continuing that legacy, Stratedigm's SE520EON series gives uncompromised performance for flow cytometer users who run demanding, routine applications—without cutting corners. When you're looking for the perfect fixed-configuration flow cytometer, you should never have to sacrifice dependability and performance just to stay on budget.

Continuous Availability

Uptime is an important consideration in purchasing a cytometer and Stratedigm takes this very seriously—designing and manufacturing quality and reliability in the U.S.A. from the get-go. Start with the optical bench—this patented single plate “unibody” construction is the underpinning of a rugged design that performs to-spec even if moved or jostled. The unique EPP enclosure eliminates vibrational and temperature-related instability—and as an added bonus, reduces weight and part count. Automated software routines for startup, shutdown, and other tasks keep the instrument at the ready. Continuous software monitoring of key variables alerts you when attention is needed...before it becomes a problem. Our Remote Diagnostics Agent can relay real-time service information and critical performance stats to our service center—improving service levels and uptime, and decreasing costs. The SE520EON is ready when you are.

Brilliant In More Ways Than One

To see or not to see...that is the difference between high-end systems and many of the “low-cost” systems on the market today. In order to remove the cost as a potential product disadvantage, many manufacturers will compromise by using inferior components or eliminating functionality that ensures 20/20 vision: resulting in a cytometer that cannot “read the fine print” in your sample. For routine applications with high antigen density, this may be fine. But in uncharted territory, how do you know what you are missing? Stratedigm has optimized the optical, fluidic, and electronic elements to maximize the amount of light generated and collected from the sample, while minimizing the amount of background light that clouds the picture. The proof is in the data. The best part is we do all of this without breaking your budget.

Laser

- System is designed to support two lasers with spatial separation
- Lasers:
 - Solid-state 488 nm - 150 mW
 - Solid-state 640 nm - 100 mW

Detector Parameters/Data Acquisition

- Dynamic Range:
 - 5-decades for acquisition
 - 7-decades for analysis
- Forward scatter (FSC) – enables separation of unfixed platelets from noise
 - FSC resolution: < 500 nm polystyrene beads
 - FSC scales: log and linear
 - FSC parameters: width, peak height, area
- Side scatter (SSC) – resolves lympho-, mono- and granulocytes
 - SSC resolution: < 200 nm polystyrene beads
 - SSC scales: log and linear
 - SSC parameters: width, peak height, area
- Fluorescence channels:
 - Standard number of colors: 6
 - Sensitivity: < 100 MESF
 - Fluorescence resolution: < 2.5% CV
 - PMT scales: log and linear
 - PMT parameters: width, peak height, area
 - Time: 13 μ sec resolution

Analysis Rate and Carryover

- Analysis rate: up to 20,000 events/sec
- Carryover: < 0.1%, with automatic backflush between samples

Sample Input

- Dead volume: < 8 μ L
- Minimum sample volume: < 20 μ L
- Maximum particle size: up to 40 μ m polystyrene beads and up to 130 μ m cells
- Patented low insertion force single tube loading

Fluidics Tray

- Integrated fluidics tray does not increase the footprint of the instrument
- Automated startup, shutdown, and cleaning cycles
- Automated decontamination procedure using on-board cleaning solution for all components in contact with sample
- Tank capacity: 4 L sheath, 4 L waste, 4 L auxiliary solution
- Optional automated sheath tank fill and waste drainage

Operating Conditions

- Operating conditions: 60–86 °F (15–30 °C)
- Size (including fluidics tray): 21.5" W x 21" D x 24" H (54.6 cm W x 53.3 cm D x 61 cm H)
- Weight (including fluidics tray): < 70 lbs (35 kg)
- Power: 110/115/230 VAC, 50–60 Hz

**488 nm - Blue
(150 mW)**

FITC (530/30)
PE (580/30)
PerCP/PE-Cy5 (676/29)
PE-Cy7 (780/60)

**640 nm - Red
(100 mW)**

APC (676/29)
APC-Cy7 (780/60)

