

# Lasair® III

## Aerosol Particle Counter Models 310C, 350L, 5100



The Lasair III particle counter sets the new standard for aerosol particle counters. The on-board Pulse Height Analyzer (PHA) ensures ISO 21501-4 compliance. The large IR touch screen controls and intuitive user interface make the system very easy to use. The particle counter's rugged enclosure is chemically resistant and lightweight for portability. The enclosure also has a streamlined design that minimizes particle traps and makes the unit easy to clean.

### BENEFITS

- ISO 21501 compliant with built-in Pulse Height Analyzer (PHA)
- 100 LPM, 50 LPM or 1 CFM flow rates available – 100 LPM flow samples 1m<sup>3</sup> in 10 minutes
- Large IR touch screen for simplified use
- Quiet pump improves work environment
- Calculates and creates reports for ISO 14644-1, EC GMP Annex #1, and FS209E
- Comprehensive validation manual makes it easy to meet pharmaceutical regulatory requirements
- Operates in cleanrooms via a web browser: Setup, sample, display, print, download data
- Choose from nine languages for display and printout
- Removable batteries with optional external charger for continuous mobile use
- Stores sampling recipes to reduce operator errors
- Long term data archiving with DataAnalyst software

### APPLICATIONS

- Cleanroom monitoring
- Facility certification for ISO, EC GMP, or FS209E
- Trend analysis
- Statistical process control
- Troubleshooting particle excursions
- Manifold compatible
- Portable or dedicated use

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## specifications

	310C	350L	5100
Channels	0.3, 0.5, 1.0, 5.0, 10.0, 25.0 $\mu\text{m}$	0.3, 0.5, 1.0, 5.0, 10.0, 25.0 $\mu\text{m}$	0.5, 1.0, 2.0, 5.0, 10.0, 25.0 $\mu\text{m}$
Flow rate	1.0 CFM (28.3 LPM) $\pm$ 5%	50 LPM $\pm$ 5%	100 LPM $\pm$ 5%
Calibration	Meets ISO 21501-4 requirements		
Maximum concentration <sup>a</sup>	> 1,200,000/ft. <sup>3</sup>	> 700,000/ft. <sup>3</sup>	> 575,000/ft. <sup>3</sup>
Counting efficiency	50% $\pm$ 20% for most sensitive threshold. Meets ISO 21501-4 requirements.		
Zero count	7.07 counts/m <sup>3</sup> (1 CFM); 4.00 counts/m <sup>3</sup> (50 LPM); 2.00 counts/m <sup>3</sup> (100 LPM)		
Data storage	3000 complete data sets. 21 CFR Part 11 compliance. Long term data storage/analysis with DataAnalyst.		
Communication modes	Ethernet or RS-232; USB data downloading; optional wireless Ethernet		
Controlling software	Facility Net®, Pharmaceutical Net®, Microsoft® Internet Explorer 5.0+, Firefox®		
Remote operation	Remote web browser operation; real-time download to Facility or Pharmaceutical Net; USB download		
Reports	USB reports; sample printouts; cleanroom certification reports for ISO, EC GMP and FS209E; averaging		
Environmental sensors	Four 4-20 mA inputs		
Languages	English, French, German, Italian, Japanese (Kanji), Korean, Mandarin Chinese (Traditional or Simplified), Spanish, Russian		
Display and Printer	8.4" color VGA display (640 x 480); IR touch screen (IP65 rated); built-in thermal printer		
External surface	Polycarbonate (PC) with Carbon Nano Tubes		
Enclosure cleaning materials	Bleach, formaldehyde, ethyl/isopropyl alcohol, peroxide/quaternary ammonium solutions		
Sample tubing <sup>b</sup>	Tubing ID: 3/8" 8m max. length	1/2" 8m max. length	3/4" 8m max. length
Sample output filtering	Internally filtered to > 99.97% at 0.3 $\mu\text{m}$		
Power and Battery <sup>c</sup>	100-240 V, 50-60 Hz, 150 W; Lithium battery: estimated operation 3 hrs. (single) 6 hrs. (dual) for 1 CFM unit		
Dimensions (h, w, d)	11.9 x 12.9 x 10.2 inch (30.1 x 32.7 x 25.9 cm)		
Weight	13.2 lbs. (6 kg) without battery, 16.5 lbs. (7.5 kg) with two optional batteries		
Operating environment	Temperature: 0-30°C; Humidity: 5-95% RH non-condensing		

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a. Less than 10.0% coincidence loss at maximum recommended concentration.  
b. For pharmaceutical applications, tubing length should equal 2m maximum.  
c. Battery life is based on continuous operation running one (1) minute samples and printing every minute.



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