

# Lasair® III

Aerosol Particle Counter

*Portable air contamination monitoring compliant with the latest regulations*

*Without measurement there is no control*



The Lasair III Aerosol Particle Counter sets the standard for portable aerosol particle counters, and fully meets the requirements of ISO 14644-1 (including the new 2015 revision) and ISO 21501-4. Available in three different flow rate configurations (1 CFM, 50 LPM and 100 LPM), the Lasair III meets a variety of cleanroom applications including routine remote and mobile cleanroom monitoring. Interactive software steps the user through the ISO 14644-1, EU GMP Annex 1, China GMP, and FS 209E room certification process.

Cleanroom certification results are available through a local printout, downloadable via USB in a secure format, or through the use of external software packages such as DataAnalyst, Facility Net or Pharmaceutical Net software.

The user interface works with gloves—no stylus required. Interaction problems commonly associated with resistive or capacitive touchscreens are eliminated.

The rugged chemical-resistant enclosure is lightweight for portability. The instrument's streamlined design minimizes particle traps, making the unit easy to clean. Power is provided to the unit through the use of the on-board hot-swappable batteries. Power can also be provided through the use of an external AC power source, which can simultaneously power the unit and charge the on-board batteries.

## BENEFITS

- Comprehensive validation manual for meeting pharmaceutical regulatory requirements
- Pre-configured sampling recipes to reduce operator errors
- Long-term data archiving with DataAnalyst software
- Local printout for immediate hardcopy results and USB electronic printouts for long term storage
- WiFi communication data transfer and control (optional)
- Interactive software for ISO 14644-1, EU GMP Annex 1, China GMP and FS 209E room certification process
- Up to 32 customizable alarm comments for cleanroom problem identification
- Modbus TCP/IP communication protocol for integration with third party monitoring systems
- 21 CFR Part 11 compliant download and access management with up to 16 configurable users

## FEATURES

- 100 LPM samples 1 m<sup>3</sup> in 10 minutes
- Large, 8.4-inch IR touchscreen compatible with gloves
- Reports for ISO 14644-1:1999, ISO 14644-1:2015, EU GMP Annex 1, China GMP, and FS 209E
- Web browser operation for remote access
- Compatible with common cleanroom cleaning chemicals
- Choose from 12 languages for display and printout
- ISO 14644-1:2015 compliant
- ISO 21501-4 compliant with a built-in Pulse Height Analyzer (PHA) – Available with ISO 17025 calibration certificate (optional)

## APPLICATIONS

- Cleanroom monitoring
- Facility certification for ISO 14644-1:1999 & 2015, EU GMP, China GMP, FS 209E
- Trend analysis
- Statistical process control
- Troubleshooting particle excursions
- Manifold compatible

# Lasair<sup>®</sup> III

Aerosol Particle Counter

Specifications

	310B, 310C	350L	5100
<b>Channels</b>	310B: 0.3, 0.5, 1.0, 3.0, 5.0, 10.0 µm 310C: 0.3, 0.5, 1.0, 5.0, 10.0, 25.0 µm	0.3, 0.5, 1.0, 5.0, 10.0, 25.0 µm	0.5, 1.0, 2.0, 5.0, 10.0, 25.0 µm
<b>Flowrate</b>	1.0 CFM (28.3 LPM) ± 5%	50 LPM ± 5%	100 LPM ± 5%
<b>Calibration</b>	Meets ISO 21501-4 requirements - ISO 17025 Compliant Certification available (Optional)		
<b>Maximum Concentration<sup>a</sup></b>	> 1,380,270/ft <sup>3</sup>	> 832,599/ft <sup>3</sup>	> 688,495/ft <sup>3</sup>
<b>Counting Efficiency</b>	<ul style="list-style-type: none"> <li>50% ± 20% for most sensitive threshold</li> <li>100% ± 10% at 1.5 to 2.0 times channel 1 size</li> </ul> <p style="text-align: right;">*Both meet ISO 21501-4 requirements.</p>		
<b>Zero Count</b>	7.07 counts/m <sup>3</sup> (1CFM); 4.00 counts/m <sup>3</sup> (50 LPM); 2.00 counts/m <sup>3</sup> (100 LPM)		
<b>Data Storage</b>	3,000 complete data sets. 21 CFR 11 compliance. Long-term data storage/analysis with DataAnalyst.		
<b>Communication Modes</b>	Ethernet, Modbus TCP/IP, or RS-232; USB data downloading; optional internal wireless Ethernet		
<b>Controlling Software</b>	Facility Net, Pharmaceutical Net, FacilityPro, Microsoft <sup>®</sup> Internet Explorer <sup>®</sup> 5.0+, Firefox <sup>®</sup>		
<b>Remote Operation</b>	Remote web browser operation; real-time download to Facility Net or Pharmaceutical Net, or Modbus TCP/IP based monitoring systems		
<b>Report Output</b>	<ul style="list-style-type: none"> <li>Available by USB and/or thermal printer</li> <li>Creates reports for ISO 14644-1:1999, ISO 14644-1:2015, EU GMP Annex 1, China GMP, and FS 209E</li> </ul>		
<b>Environmental Sensors</b>	Configurable analog input (4-20 mA)		
<b>Languages</b>	English, French, German, Italian, Chinese (traditional and simplified), Japanese (Kanji), Korean, Polish, Portuguese, Russian, Spanish		
<b>Display and Printer</b>	8.4" color VGA display (640 x 480); IR touch screen (IP65 rated); built-in thermal printer		
<b>External Surface</b>	Polycarbonate (PC)		
<b>Enclosing Cleaning Materials</b>	Bleach, ethyl/isopropyl alcohol, peroxide/quaternary ammonium solutions		
<b>Sample Tubing ID<sup>b</sup></b>	3/8", 8 m max. length	1/2", 8 m max. length	3/4", 8 m max. length
<b>Sample Output Filtering</b>	Internally filtered to > 99.97% at 0.3 µm		
<b>Power and Battery<sup>c</sup></b>	100 – 240 V, 50 – 60 Hz, 150 W Lithium battery: estimated operation 3 hr (single) 6 hr (dual) for 1 CFM unit		
<b>Dimensions (H x W x L)</b>	11.9 x 12.9 x 10.2 in (30.1 x 32.7 x 25.9 cm)		
<b>Weight</b>	13.2 lb (6 kg) without battery, 16.5 lb (7.5 kg) with two optional batteries		
<b>Operating Environment</b>	Temperature: 32 – 86 °F (0 – 30 °C); Humidity: 5 – 95% RH non-condensing		

All dimensions, weights and values not provided with a tolerance are +/-10% values.

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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