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.

PARTICLE MEASURING SYSTEMS®
a spectris company

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 m³ 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

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Specifications

	310B, 310C	350L	5100
Channels	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
Flowrate	1.0 CFM (28.3 LPM) ± 5%	50 LPM ± 5%	100 LPM ± 5%
Calibration	Meets ISO 21501-4 requirements - ISO 17025 Compliant Certification available (Optional)		
Maximum Concentration[a]	> 1,380,270/ft^3	> 832,599/ft^3	> 688,495/ft^3
Counting Efficiency	• 50% ± 20% for most sensitive threshold • 100% ± 10% at 1.5 to 2.0 times channel 1 size *Both meet ISO 21501-4 requirements.		
Zero Count	7.07 counts/m^3 (1CFM); 4.00 counts/m^3 (50 LPM); 2.00 counts/m^3 (100 LPM)		
Data Storage	3,000 complete data sets. 21 CFR 11 compliance. Long-term data storage/analysis with DataAnalyst.		
Communication Modes	Ethernet, Modbus TCP/IP, or RS-232; USB data downloading; optional internal wireless Ethernet		
Controlling Software	Facility Net, Pharmaceutical Net, FacilityPro, Microsoft® Internet Explorer® 5.0+, Firefox®		
Remote Operation	Remote web browser operation; real-time download to Facility Net or Pharmaceutical Net, or Modbus TCP/IP based monitoring systems		
Report Output	• Available by USB and/or thermal printer • Creates reports for ISO 14644-1:1999, ISO 14644-1:2015, EU GMP Annex 1, China GMP, and FS 209E		
Environmental Sensors	Configurable analog input (4-20 mA)		
Languages	English, French, German, Italian, Chinese (traditional and simplified), Japanese (Kanji), Korean, Polish, Portuguese, Russian, Spanish		
Display and Printer	8.4” color VGA display (640 x 480); IR touch screen (IP65 rated); built-in thermal printer		
External Surface	Polycarbonate (PC)		
Enclosing Cleaning Materials	Bleach, ethyl/isopropyl alcohol, peroxide/quaternary ammonium solutions		
Sample Tubing ID[b]	3/8”, 8 m max. length	1/2”, 8 m max. length	3/4”, 8 m max. length
Sample Output Filtering	Internally filtered to > 99.97% at 0.3 µm		
Power and Battery[c]	100 – 264 V, 50 – 60 Hz, 150 W Lithium battery: estimated operation 3 hr (single) 6 hr (dual) for 1 CFM unit		
Dimensions (H x W x L)	11.9 x 12.9 x 10.2 in (30.1 x 32.7 x 25.9 cm)		
Weight	13.2 lb (6 kg) without battery, 16.5 lb (7.5 kg) with two optional batteries		
Operating Environment	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.

HEADQUARTERS

5475 Airport Blvd
Boulder, Colorado 80301 USA
T: +1 303 443 7100, +1 800 238 1801

Instrument Service & Support
T: +1 800 557 6363

Customer Response Center
T: +1 877 475 3317
E: info@pmeasuring.com

www.pmeasuring.com
info@pmeasuring.com

PARTICLE MEASURING SYSTEMS®
a spectris company

GLOBAL OFFICES

AUSTRIA
T: +43 512 390 500
E: pmsaustria@pmeasuring.com

BENELUX
T: +32 10 23 71 56
E: pmsbelgium@pmeasuring.com

BRAZIL
T: +55 11 5188 8227
E: pmsbrazil@pmeasuring.com

CHINA
T: +86 21 6113 3600
E: pmschina@pmeasuring.com

FRANCE
T: 33(0)1 60 10 32 96
E: pmsfrance@pmeasuring.com

GERMANY
T: +49 6151 6671 632
E: pmsgermany@pmeasuring.com

ITALY
T: +39 06 9053 0130
E: pmssrl@pmeasuring.com

JAPAN
T: +81 3 5298 8175
E: pmsjapan@pmeasuring.com

KOREA
T: +82 31 286 5790
E: pmskorea@pmeasuring.com

MEXICO
T: +52 55 2271 5106
E: pmsmexico@pmeasuring.com

NORDIC
T: +45 707 028 55
E: pmsnordic@pmeasuring.com

PUERTO RICO
T: +1 787 718 9096
E: pmspuertorico@pmeasuring.com

SINGAPORE
T: +65 6496 0330
E: pmssingapore@pmeasuring.com

SWITZERLAND
T: +41 71 987 01 01
E: pmsswitzerland@pmeasuring.com

TAIWAN
T: 886-3-5525300 Ext: 301
E: pmstaiwan@pmeasuring.com