

# **EXTREME** LIFE LASER DIODE TECHNOLOGY



# SOLAIR 3100+ SOLAIR 5100+

### AIRBORNE PARTICLE COUNTERS

Lighthouse **SOLAIR 3100+** and **SOLAIR 5100+** portable airborne particle counters incorporate our **Extreme Life Laser Diode Technology** sensor to produce the industry's first 20year MTTF laser lifespan.

The **SOLAIR 3100+** and **SOLAIR 5100+** provide excellent sensitivity of 0.3 and 0.5 $\mu$ m, respectively, at a flow rate of 1.0 CFM (28.3 LPM) and a dynamic range of up to 25.0 $\mu$ m.

The integrated 5.7-inch (14.47 cm) color touch screen interface makes these instruments easy to configure and operate. Both counters can store 3,000 records of particle count data from up to 8 channels and environmental data from up to four analog sensors (4-20mA). All data can be quickly and reliably transferred to a computer or printed on its built-in thermal printer.

Demonstrating their versatility, the **SOLAIR 3100+** or **SOLAIR 5100+** can be used as a portable instrument or integrated into a facility monitoring system.

#### Designed and built by Lighthouse - a name you can trust.

Lighthouse is an ISO 9001:2000 Registered Company
WWW.golighthouse.com

### Features:

- ★ SOLAIR 3100+: 0.3µm to 25.0µm
- ★ SOLAIR 5100+: 0.5µm to 25.0µm
- ★ 1.0 CFM (28.3 LPM) Flow Rate
- ★ User Removable, Rechargeable Li-Ion Battery
- $\star$  Simultaneous Display of up to 8 Particle Sizes
- ★ Extreme Life Laser Diode Technology
   >20 Years MTTF Laser Lifespan @ 0.3 & 0.5µm
- ★ 304 Stainless Steel Construction
- ★ Easy-to-Load Thermal Printer, User-Definable Printouts
- ★ Up to 4 Environmental Sensors (4-20mA)
- ★ Multiple Communication Interfaces: RS-232 and RS-485
- \* SOLAIR 3100+ and 5100+ Meet JIS B 9921 Standards
- \* 5.7-inch Color Touch Screen
- ★ 3000-record Data Storage Memory
- ★ 200 Alphanumeric Location Labels
- ★ Data Reported in normalized Counts: FS-209E, ISO-14644-1 or EU GMP Annex 1
- ★ Integrated Alarm and External Alarm Connection
- ★ Data Easily Transferred to a Computer

# Benefits:

- ★ 2 Year Warranty
- ★ Small Footprint

## **Applications:**

- Cleanroom Monitoring 🛛 🛧 Hospital Sur
- ★ Facility Monitoring



Easy Loading Thermal Printer



User Friendly Configuration



Rechargeable Li-Ion Battery



dly Alphanumeric on Location Labels

Hospital Surgical Rooms

★ International Support

★ Low Cost of Ownership

Pharmaceutical

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Zoom Screen Functionality



Multiple Cleanroom Standard Reports via Printer





### Specifications:

	3100+	5100+					
Size Range:	0.3 - 25.0µm	0.5 - 25.0µm					
Standard Channel Sizes:	0.3, 0.5, 1.0, 3.0, 5.0, 10.0µm	0.5, 0.7, 1.0, 3.0, 5.0, 10.0μm					
	0.3, 0.5, 1.0, 5.0, 10.0, 25.0µm	0.5,1.0, 3.0, 5.0, 10.0, 25.0µm					
8-Channel:	0.3, 0.5, 0.7, 1.0, 3.0, 5.0, 7.0, 10.0µm	0.5, 0.7, 1.0, 2.0, 3.0, 5.0, 7.0, 10.0µm					
Flow Rate:	1.0 CFM (28.3 LPM)						
Counting Efficiency:	3100+, 50% @ 0.3µm; 100% @ sizes > 0.45µm; 5100+, 50% @ 0.5µm; 100% @ sizes > 0.75µm Per JIS B 9921, ISO 21501-4						
Light Source:	Extreme Life Laser Diode Technology with >20 Year Mean Time To Failure (MTTF)						
Zero Count Level:	<1 count / 5 minutes (per JIS B 9921)						
Concentration Limits:	500,000 particles / ft <sup>3</sup> @ 5% coincidence loss						
Calibration:	NIST Traceable, per ISO 21501-4						
Count Modes:	Manual, Automatic, Beep, Concentration and Real Time (with LMSNet or LMS Express RT/RT+)						
Data Storage:	3,000 Sample Records (Rotating Buffer) which includes particle and environmental data, locations and times						
Communication Modes:	RS-232 via RJ-45 to PC, RS-485/MODBUS						
Supporting Software:	LMS XChange, LMS Express, LMS Express RT/RT+, LMSNet						
Environmental Sensors:	Optional (up to 4): Temperature/Relative Humidity, Air Velocity, Differential Pressure						
Touch Screen Display:	5.7-inch (14.47 cm) color, 320x240						
Printer:	Built-in Thermal Printer						
Reports:	ISO-14644-1, FS-209E & EU GMP Annex 1						
Alarm:	Integrated, Adjustable Alarm and External Alarm Connection: Alarms on Counts and Low Battery						
Enclosure:	304 Stainless Steel						
Sample Output:	Internally filtered to HEPA standards (>99.97% @ 0.3µm)						
Vacuum Source:	Internal flow-controlled pump						
Power:	100-240 VAC, 50-60 Hz						
Battery:	Li-Ion, Removable & Rechargeable						
Dimensions:	9.96" (I) x 8.0" (w) x 10.16" (h) [25.3 x 20.32 x 25.81 cm]						
Weight:	With Battery: 14.9 lbs (6.8 kg); Without Battery: 12.95 lbs (5.9 kg)						

#### **Environmental Conditions:**

 Operating:
 50°F to 104°F (10°C to 40°C) / 20% to 95% non-condensing

 Storage:
 14°F to 122°F (-10°C to 50°C) / Up to 98% non-condensing

#### Accessories:

Included: Operating Manual on CD; Isokinetic Sample Probe with Tripod and Tubing; Purge Filter; Removable/Rechargeable Li-Ion Battery; Power Cable and Spare Fuse; LMS XChange Software; Printer; Printer Paper

Optional:Printed Operating Manual; Network Adapter; Wireless Network Adapter; Shipping Case with Wheels; Cleanroom<br/>Cart; Temperature/Relative Humidity Probe; Air Velocity Probe; Differential Pressure Probe; Filter Scanning Probe;<br/>High Pressure Diffuser; Spare Removable/Rechargeable Li-Ion Battery; External Battery Charger; 32-port Universal<br/>Manifold System; LMS Express/RT/RT+ Software; LMSNet Software; Validation Manual

#### Manufactured by:



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#### Distributed by:

Lighthouse Worldwide Solutions reserves the right to change specifications without notice. LWS PN 545401601-1 Rev 4