



TECHNICAL DATASHEET

# SOLAIR<sup>Portable</sup>

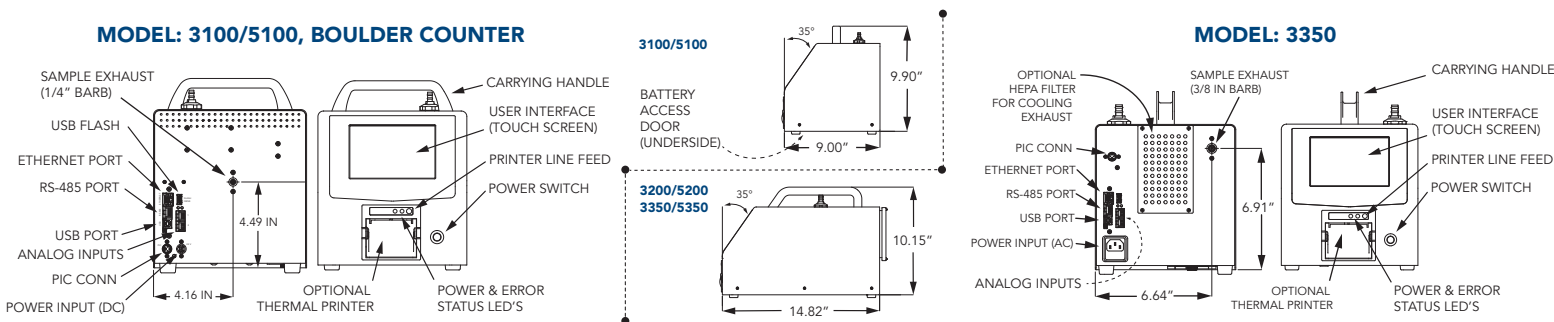
AIRBORNE PARTICLE COUNTERS



**T**HE SOLAIR series portable particle counters incorporate our extreme life laser diode technology sensor to produce the industry's longest laser diode life of 20+ year MTTF (based on continuous 24/7 operation). Using a new, lighter extended-life battery and external AC adapter, the SOLAIRs are even more portable. The SOLAIR features one of the industry's best user interfaces (UI) to configure and operate the instrument with intuitive ICON-driven screens and menus that are simple and easy to learn and use.

## FEATURES

- 0.3 - 100  $\mu$ m sensitivity
- 1.0 CFM, 50 & 100 LPM
- Up to 8 channels of simultaneous count data
- 21 CFR Part 11 compliant secure USB flash transfer
- Extreme life laser diode technology >20-year MTTF
- 5.7 inch color touch screen display
- Thermal printer
- Stainless steel construction
- Ethernet/RS485/Modbus, 4x 4-20mA analog outputs
- 3,000 record data storage
- 50-record configurable recipe database
- Report wizard: FS-209E, ISO-14644-1 & EU GMP Annex 1
- 2 year warranty



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### SOLAIR Portable Airborne Particle Counters

	1 CFM		3350	HIGH FLOW
<b>Model</b>	<b>3100</b>	<b>5100</b>	<b>3350</b>	
<b>Size range</b>	0.3 - 25.0 $\mu\text{m}$	0.5 - 25.0 $\mu\text{m}$	0.3 - 25.0 $\mu\text{m}$	
<b>Standard 6 channels</b>	0.3, 0.5, 1.0, 3.0, 5.0, 10.0 $\mu\text{m}$	0.5, 0.7, 1.0, 3.0, 5.0, 10.0 $\mu\text{m}$	0.3, 0.5, 1.0, 3.0, 5.0, 10.0 $\mu\text{m}$	
	0.3, 0.5, 1.0, 5.0, 10.0, 25.0 $\mu\text{m}$	0.5, 1.0, 3.0, 5.0, 10.0, 25.0 $\mu\text{m}$	0.3, 0.5, 1.0, 5.0, 10.0, 25.0 $\mu\text{m}$	
<b>Standard 8 channel</b>	0.3,0.5,0.7,1.0,3.0,5.0,7.0,10.0 $\mu\text{m}$	0.5,0.7,1.0,2.0,3.0,5.0,7.0,10.0 $\mu\text{m}$	100 LPM	
<b>Optional 8 channel</b>			50%@0.3 $\mu\text{m}$ ;100% for particles	
<b>Flow rate</b>	1 CFM (28.3 LPM)	1 CFM (28.3 LPM)	> 0.45 $\mu\text{m}$ (per ISO 21501-4)	
<b>Counting efficiency</b>	50%@0.3 $\mu\text{m}$ ;100% for particles > 0.45 $\mu\text{m}$ (per ISO 21501-4)	50%@0.5 $\mu\text{m}$ ;100% for particles > 0.75 $\mu\text{m}$ (per ISO 21501-4)		
<b>Concentration limits</b>	1,000,000 particles/ft <sup>3</sup> , (35,300,000/m <sup>3</sup> ) @ 10% coincidence loss suitable for ISO classes 1-8 cleanrooms.		400,000 particles/ft <sup>3</sup> , (14,120,000/m <sup>3</sup> ) @ 10% coincidence loss suitable for ISO classes 1-8 cleanrooms.	
<b>Dimensions</b>	9.5"(l) x 8.0"(w) x 10.2"(h) (24.13 x 20.32 x 25.9 cm)		14.65"(l) x 8.0"(w) x 10.4"(h) (37.0 x 20.0 x 26.0 cm)	
<b>Weight</b>	With battery: 13.95 lbs (6.33 kg), without battery 12.35 lbs (5.6 kg)		With battery: 25.83 lbs (11.73 kg), without battery 22.75 lbs (10.32 kg)	
<b>Model</b>	<b>BOULDER COUNTER</b>			
<b>Size range</b>	5.0 - 100.0 $\mu\text{m}$			
<b>Standard 6 channels</b>	5.0, 10.0, 25.0, 40.0, 50.0, 100.0 $\mu\text{m}$			
<b>Optional 6 channels</b>	5.0, 10.0, 20.0, 30.0, 50.0, 100.0 $\mu\text{m}$			
<b>Flow rate</b>	1 CFM (28.3 LPM)			
<b>Counting efficiency</b>	50% @ 5.0 $\mu\text{m}$ ; 100% for particles > 7.5 $\mu\text{m}$ (per ISO 21501-4)			
<b>Concentration limits</b>	1,000,000 particles/ft <sup>3</sup> @ 10% coincidence loss			
<b>Dimensions</b>	9.5"(l) x 8.0"(w) x 10.2"(h) (24.13 x 20.32 x 25.9 cm)			
<b>Weight</b>	With battery: 13.95 lbs (6.33 kg), without battery 12.35 lbs (5.6 kg)			

<b>Features</b>	<b>Laser Source</b>	Extreme Life Laser Diode with > 20 years MTTF	<b>Printer</b>	Available with and without internal printer
	<b>Zero Count Level</b>	< 1 count / 5 minutes (per ISO 21501-4)	<b>Reports</b>	FS-209, ISO 14644-1:2015, ISO 14644-1:1999, EU GMP Annex 1
	<b>Calibration</b>	Meets ISO 21501-4 calibration using NIST traceable PSL spheres	<b>Alarm</b>	On counts & low battery, Includes ext. alarm connection
	<b>Count Modes</b>	Automatic, manual, beep, concentration, cumulative/differential	<b>Enclosure</b>	Stainless steel
	<b>Data Storage</b>	3,000 sample records, rotating buffer	<b>Sample Output</b>	Internally filtered to HEPA standards (>99.97 @ 0.3 $\mu\text{m}$ )
	<b>Communication Modes</b>	USB, Ethernet, RS-485, USB flash drive	<b>Vacuum Source</b>	Internal closed-loop controlled pump
	<b>Supporting Software</b>	LMS Express, LMS Express RT, LMS Pharma, LMS Pro	<b>Power</b>	100-250 VAC, 47-63 HZ
	<b>Touch Screen</b>	5.7 inch (14.47 cm) color TFT touch screen display	<b>Languages</b>	English (US), French, German, Spanish, Italian, Russian, Japanese, Korean and Chinese
	<b>Location Labels</b>	Up to 200 location labels		

**Included** Operating manual on CD, LMS Express transfer software, isokinetic sample probe, purge filter, power cables, spare fuse, printer, printer paper

**Optional** Printed operating manual, wireless network adapter, removable rechargeable Li-Ion battery, carrying case with wheels, temperature/relative humidity probe, intelligent filter scanner probe, air velocity probe, ext. battery charger, software (LMS ExpressRT, LMS Pharma, LMA Pro), validation documentation, cleanroom cart

**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



Lighthouse Worldwide Solutions reserves the right to change specifications without notice.