

TECHNICAL DATASHEET

ApexZ Airborne Particle Counters

Features	ApexZ3	ApexZ50
Size Range	0.3 - 10.0 µm	0.5 - 10.0 µm
Standard 6 Channels	0.3, 0.5, 1.0, 3.0, 5.0, 10.0 µm	0.5, 0.7, 1.0, 3.0, 5.0, 10.0 µm
Flow Rate	1.0 CFM (28.3 LPM)	100 LPM
Concentration Limits	1,000,000 particles / ft³ @ 10% coincidence loss	300,000 particles / ft³ @ 10% coincidence loss
Counting Efficiency	50% @ 0.3µm; 100% for particles >1.5X first channel particle size	50% @ 0.5µm; 100% for particles >1.5X first channel particle size
Sample Inlet	3/8" Inlet nozzle	1/2" Inlet nozzle
Laser Source	Extreme Life Laser Diode	
Zero Count Level	< 1 count / 5 minutes (meets specifications of JIS B 9921 and reporting requirements of ISO 21501-4 Annex C)	
Calibration	Designed for ISO 21501-4 Compliance	
Self-Diagnostics	Laser Power/Current/Supply, Flow out-of-range, No flow, PA Background/Supply/Health	
Count Modes	Sample, Concentration, Beep, Quick Certification	
Data Storage	10,000 Sample Records, 2,500 Locations, 250 Groups, 500 Presets, 500 Sample Plans, 500 Certifications, 100 Reports, 250 Users	
Communication	Ethernet, USB standard, Wi-Fi (802.11 b/g/n)	
Supporting Software	LMS Express, LMS Express RT, LMS Pharma, LMS Professional, LMS XChange	
Environmental Sensors	Temperature/Relative Humidity probe: 0 to 150°F (-17.8 to 65.6°C) ±1.8°F (0.5°C), 0-100% ± 2% RH	
Touch Screen Display	7.0" (8.89 cm), 1280 x 800 IPS color touch screen	
Speakers	2x adjustable up to 70 dB to indicate status and alerts	
Carry Handle	With RGB light pipe for status and alarms	
Printer	Embedded panel-mount printer, also available without printer	
Reports	FED 209E, ISO 14644-1:1999, ISO 14644-1:2015, & EU GMP regulatory pass/fail reports on screen or printer	
Alert	User configurable warnings and alarms	
Sample Output	Internally filtered to HEPA standards (>99.97% @ 0.3 µm); with rotatable exhaust fitting for directed flow	
Vacuum Source	Internal blower, automatic flow control	
Enclosure	Chemically Resistant Polycarbonate blend, conductive lining, VHP compatible	
Power	External power supply: 24 VDC, 5 A max draw	
Battery	2x Li-Ion battery slot capacity, removable and rechargeable, 11 hours nominal use, 50% duty cycle (no printing)	
Dimensions	12.76" (l) x 6.23" (w) x 8.88" (h), [32.41 (l) x 15.82 (w) x 22.55 (h) cm]	
Temperature/Humidity	35°F to 104°F (2°C to 40°C), 20% to 95% relative humidity, non-condensing	
Weight	7.05 lbs (3.19 kg) without batteries, single battery weight 1.35 lbs (0.61 kg)	
Languages	English, Spanish, Portuguese, German, French, Italian, Russian, Chinese, Korean, Japanese, Turkish, Thai	

**Includes** USB flash drive with lanyard, ISO probe 1 CFM (ApexZ3), 100 LPM (ApexZ50), ISP clamp, zero count filter, 24 VDC 5.0 amp power adapter and power cord, 10' Beveline XX tubing 3/8" ID x 1/2" OD (ApexZ3), 1/2" ID x 5/8" OD BevXX (ApexZ50), 1 li-Ion smart battery included (2 battery slot capacity), 2x rolls of printer paper, Operators Manual on USB flash drive, Calibration Certificate

**Optional** USB Barcode Scanner, Temperature & humidity probe, isokinetic sample probes, high pressure diffuser (ported or vented), li-Ion batteries, Beveline XX tubing, external battery charger w/AC power cord, printed operators manual, carry case



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

ApexZ  
AIRBORNE PARTICLE COUNTERS

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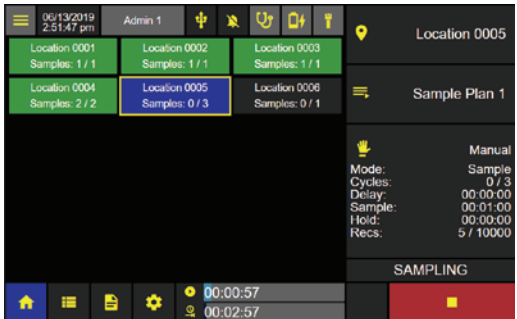


### Faster and simpler particle counting using your current SOPs:

- ✓ Flexible and simple user interface matches any particle counter SOP you use today.
- ✓ Organize your cleanroom workflows with sample plans and validated location protocols.
- ✓ Automate any or all data transfer within your IT environment.

### Automate your workflow and Eliminate sample errors:

- ✓ Organize your entire cleanroom with sample plans, validated routines by location in any or all environments.
- ✓ Map all sampling routines to pre-defined locations for both routine monitoring and certification requirements.



### Stop particle excursion madness and Immediately document and trouble-shoot any alarm:

- ✓ Comment via data tags on any sample routine excursion to document the event digitally in the data record and audit trail.
- ✓ One-click zero count test ensures excursion event is not a false-positive alert or alarm condition.
- ✓ Simplified excursion reporting from data tags ensures no guess work after exiting the cleanroom environment.



### Save Time with Simplified User Management:

- ✓ Log into your particle counter with your existing network ID and Password, via Active Directory Groups.
- ✓ Customize User access levels to match your existing procedures within 21 CFR part 11.



### Configure, validate and start particle counting quickly via LMS XChange:

- ✓ Build validated standard sample configurations and upload them into one or all particle counters.
- ✓ Build cleanroom sample plans for any environment - 1 click upload.
- ✓ LMS XChange software is available free to any Lighthouse Worldwide Solutions' customer.

### Ensure compliance to 21 CFR part 11 data requirements:

- ✓ Traceability and data security assured with ApexZ audit trail.
- ✓ 10 customizable user access levels.
- ✓ Simplify the operator's daily workflow by using global settings to ensure administrator features are hidden.



### Maximize uptime and production efficiency in your cleanroom:

- ✓ Long life dual batteries operate 10-12 hrs.
- ✓ Small, compact 7 lb design can be easily transferred with no ergonomic impact from room to room.
- ✓ Maximize walk-away time with visual status lights on the handle for sampling, alert and idle.
- ✓ Full suite of on-site and factory services for install, validation, data integration, change management and calibration needs.

### Wipedown with Confidence:

- ✓ Eliminates risk of cleaning agents leaking into the instrument during your wipe down process.
- ✓ The industries' only fully sealed, chemically compatible particle counter.

## Save time. Eliminate Errors. Data transfer your way!

### Seamlessly integrate data into your existing processes today:

- ✓ Integrated printer (also available without printer).
- ✓ Direct data output to .CSV, .LSDX or .PDF.

### Transfer data directly to secure folders on your network:

- ✓ Flexibly connect via WiFi, Ethernet or USB to send data your way.
- ✓ Provides secure location for data transfer to LIMS or ERP.
- ✓ Eliminate manual data transfer errors.

### Connect your ApexZ directly to your LIMS or ERP:

- ✓ Complete and customizable data integration to your existing LIMS and ERP systems via API.
- ✓ Project Management, data integration and validation services to speed data integration.

### Real-time holistic data streaming via Lighthouse software suite:

- ✓ Customized reports for data views your way.
- ✓ Release cleanrooms faster; fully configured for all cleanroom parameters for real-time release decisions.
- ✓ Real-time cleanroom management ensures SOP adherence and room status instantaneously.
- ✓ Visibility to cleanroom management work orders through the entire fill procedure.

