AEROTRAK® PORTABLE
PARTICLE COUNTER
MODELS 9310 & 9510

The TSI® AeroTrak® 9310 and 9510 Portable Particle Counters offer best-in-class features and versatility. They provide a 1.0 CFM (28.3 L/min) flow with 0.3 or 0.5 µm sensitivity. Compatible with TSI® accurate ventilation probes that measure air velocity/temperature/RH, these products provide you with a complete solution for your certification needs. Particle count data can be conveniently viewed on screen, downloaded using TrakPro™ Lite Secure software, or printed directly to the integrated printer.

The AeroTrak® Portable Particle Counter generates pass/fail reports for ISO 14644-1, EU GMP Annex 1, and FS209E, via the onboard printer and the supplied TrakPro™ Lite Secure download software. Multiple particle counter configurations can be conveniently stored and uploaded as needed. These products can be used as a stand-alone particle counter or integrated into a facility monitoring system like TSI® FMS 5.
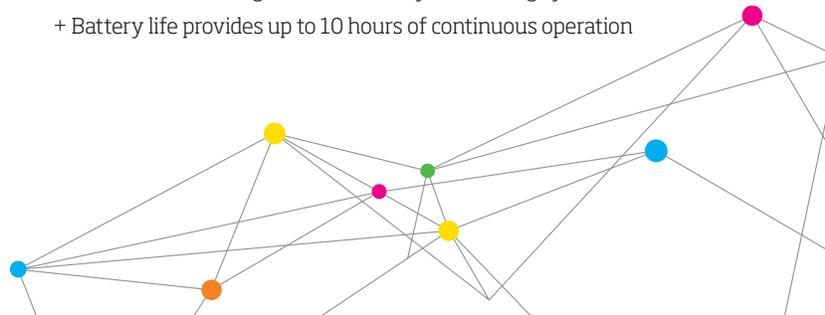
Both Models 9310 and 9510 comply with all the stringent requirements set forth in ISO 21501-4. These particle counters are calibrated with NIST traceable PSL spheres using TSI's world-class Classifier and Condensation Particle Counters, the recognized standard for particle measurements. Backed with a standard two-year warranty and TSI's long-standing reputation for high quality, there are no other particle counters like it on the market today.

Features and Benefits

+ AeroTrak 9310 particle counter: 0.3 to 25 µm
+ AeroTrak 9510 particle counter: 0.5 to 25 µm
+ Up to six channels of simultaneous data
+ 1.0 CFM (28.3 L/min) flow rate
+ Complies with all requirements of ISO 21501-4
+ Data storage: 250 zones, 999 locations, and 10,000 samples
+ USB, USB Storage Device and Ethernet data transfer
+ Industry's loudest audible alarm
+ Easy icon-driven touch screen operation
+ Onboard reports for ISO-14644-1, EU GMP Annex 1, and FS209E
+ External certification reports via TrakPro™ Lite Secure
+ Barcode scanner supports recall of specific Recipe and Zone configurations
+ Displays up to three environmental parameters
+ Stainless steel enclosure
+ Lightweight
+ Stand-alone or integrate into a facility monitoring system
+ Battery life provides up to 10 hours of continuous operation

UNDERSTANDING, ACCELERATED

SPECIFICATIONS

AEROTRAK® PORTABLE PARTICLE COUNTER
MODELS 9310 & 9510

9310 & 9510		
Size Range	**9310-02** 9310: 0.3 to 25 μm	**9510-02** 9510: 0.5 to 25 μm
Particle Channel Sizes	9310-02: 0.3, 0.5, 1.0, 3.0, 5.0, 10 μm	9510-02: 0.5, 0.7, 1.0, 3.0, 5.0, 10 μm
Size Resolution	9310-02: <15% @ 0.5 μm (per ISO 21501-4)	9510-02: <15% @ 0.5 μm (per ISO 21501-4)
Counting Efficiency	9310-02: 50% at 0.3 μm; 100% for particles >0.45 μm (per ISO 21501-4 and JIS)	9510-02: 50% at 0.5 μm; 100% for particles 0.75 μm (per ISO 21501-4 and JIS)
Concentration Limit	820,000 particles/ft³ (29,000,000/m³) @ 10% coincidence loss	
Light Source	Long life laser diode	
Zero Count	<1 count per 5 minutes (per ISO 21501-4 and JIS B9921)	
Flow Rate	1.0 CFM (28.3 L/min) ±5% accuracy (meets ISO 21501-4 and JIS B9921)	
Flow Rate Control	Electronic, automatic closed loop (patented* flow control technology)	
Sample Tube Extension	Up to 39.4 ft (12 m)	
Sampling Modes	Manual, automatic, beep; cumulative/differential; count or concentration	
Sampling Time	1 second to 99 hours	
Sampling Frequency	1 to 9999 cycles or continuous	
Exhaust	Internally HEPA filtered	
Vacuum Source	Internal pump	
Communication Mode	Modbus® TCP over Ethernet or USB	
Audible Alarm	Built-in; >85 dB at 1 meter (adjustable)	
Status Indicators	Low battery, flow, laser	
Alarm Output	Dry contacts, closed when alarm is engaged	
Alarm Limits	Programmable for all particle channels	
Display	VGA 5.7-inch (14.5-cm) touch screen display	
Languages	English, German, French, Spanish, Japanese, Chinese (simplified), Italian	
Software	Compatible with TrakPro™ Lite Secure and FMS 5 software	

Printer	Built-in thermal printer (also available without printer)
Printer Output	Prints in all available languages
Environmental Sensor Interface	Supports TSI® Probe Models: 960, 962, 964, 966, (air velocity/temp/RH) and Temp/RH probe
Unit ID	Configurable IP address
Security	2-level password protection to lock out usage and configuration
Data Storage	250 Zones
	999 Locations
	10,000 sample records including: date, time, six total particle size channels, flow status, and instrument status
Data Transfer	Via USB storage device, connection to TrakPro™ Lite Secure software through Ethernet or USB cable, or optional TSI® FMS software.
Reports	Provides Pass/Fail on ISO 14644-1, EU GMP, and FS209E reports
Calibration	NIST traceable using TSI® calibration system
Calibration Frequency	Recommended minimum of once per year
Dimension (H x W x D)	9.5 in. x 9.0 in. x 9.2 in. (24.1 cm x 23.0 cm x 23.2 cm) (without isokinetic inlet)
Weight	14.2 lbs (6.44 kg) with two batteries
Power	110 to 240 VAC universal power supply
Battery	Removable/rechargeable Li-Ion batteries (2 battery slots)
Battery Life**	Up to 10 hours of continuous operation
Battery Recharge	5 hours (when idle)
External Surface	Stainless steel
Operating Range	36° to 95°F (2° to 35°C), 20% to 95% RH noncondensing
Storage Range	32° to 122°F (0° to 50°C), up to 98% RH noncondensing
Standards	ISO 21501-4, CE, JIS B9921
Warranty	Two years
Included Accessories	Printed QuickStart guide, operating manual on CD, power supply, battery, barbed inlet, isokinetic probe, tubing, purge filter, printer paper, USB cable and TrakPro™ Lite Secure software
Optional Accessories	Electronic filter scanning probe, basic filter scanning probe, TSI velocity probes, Temp/RH probe, additional battery, dual port external battery charger, isokinetic probes, sample tubing, carrying case

* Patent Number 6,167,107

** Battery life will vary based on setup and application.

Specifications are subject to change without notice.

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