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's 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's 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 for >10 hours of continuous operation

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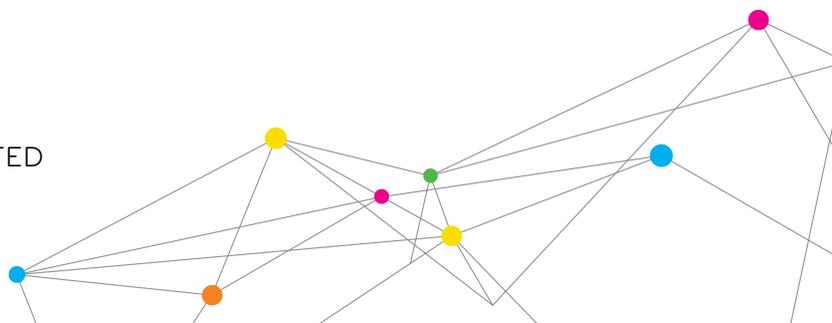
SPECIFICATIONS

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	>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

Specifications are subject to change without notice.

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