AEROTRAK® PORTABLE
PARTICLE COUNTER
MODEL 9500

The TSI® AeroTrak® 9500 Portable Particle Counter offers best-in-class features and versatility. Perform ISO 14644-1 classifications and complete certifications of EU GMP facilities by sampling 1 m³ of air in just 10 minutes! Particle count data can be conveniently viewed on screen, downloaded using TrakPro™ Lite Secure software, or printed directly to the integrated printer. Compatible with TSI® accurate ventilation probes that measure air velocity/temperature/RH, the Model 9500 is a complete solution for your certification needs. The combination of an optional electronic filter scanner with up to 26 ft of tubing, makes this the best instrument for in-place filter testing.

This particle counter can generate 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. It can be used as a stand-alone particle counter or integrated into a facility monitoring system like TSI® FMS 5.

The Model 9500 complies with all the stringent requirements set forth in ISO 21501-4. It is 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

+ 0.5 to 25 µm size range
+ Up to six channels of simultaneous data
+ 3.53 CFM (100 L/min) flow rate
+ Complies with all requirements of ISO 21501-4
+ Best choice for filter testing in cleanrooms
+ 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 3 hours of continuous operation

UNDERSTANDING, ACCELERATED
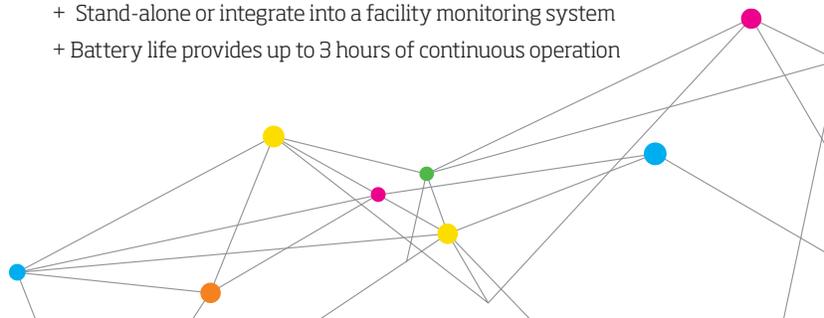
9500	
Size Range	0.5 to 25 µm
Particle Channel Sizes	0.5, 0.7, 1.0, 3.0, 5.0, 10.0 µm
Size Resolution	<15% @ 0.5 µm (per ISO 21501-4)
Counting Efficiency	50% at 0.5 µm, 100% for particles > 0.75 µm (per ISO 21501-4 and JIS)
Concentration Limit	425,000 particles/ft³ (15,000,000/m³) @ 10% coincidence loss
Light Source	Long life laser diode
Zero Count	<1 count per 5 minutes (per ISO 21501-4 and JIS B9921)
Flow Rate	3.53 CFM (100 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 26.2 ft (8 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 filter
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
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
External Chemical Resistance	Isopropyl alcohol, chlorinated solution, hydrogen peroxide
Software	Compatible with TrakPro™ Lite Secure and FMS 5 software
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 the 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 3 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.

AeroTrak, TSI and the TSI Logo are a registered trademarks of TSI Incorporated in the United States and may be protected under other country's trademark registrations.

Modbus is a registered trademark of Modicon, Inc.