

# AEROTRAK® CONDENSATION PARTICLE COUNTER MODEL 9001

The AeroTrak® 9001 Condensation Particle Counter (CPC) is the only water-based, laminar flow, high flow rate instrument on the market. Using patented technology, the AeroTrak provides 10 nm sensitivity at a 2.83 L/min (0.1 CFM) flow rate. With an ultra-low false count rate, the AeroTrak is ideally suited for the low particle concentrations found in ISO Class 1 and Class 2 environments.



Unlike other high flow rate water-based CPCs, the AeroTrak does not use turbulent mixing and measures the entire sample flow, minimizing particle losses and increasing count accuracy. Unlike alcohol or other non-water based CPCs, the AeroTrak does not introduce chemicals into your clean environments.

The AeroTrak 9001 has the same easy-to-use graphics interface as other AeroTrak Particle Counters. This interface simplifies cleanroom certification report generation based on the upcoming ISO 14644-12 standard. Multiple particle counting configurations can be conveniently stored and uploaded as needed. Model 9001 can be used as a stand-alone particle counter or run continuously, integrated into a facility monitoring system like the TSI FMS Software. Optionally, the instrument can be interfaced to other systems using the Ethernet interface and Modbus communications.

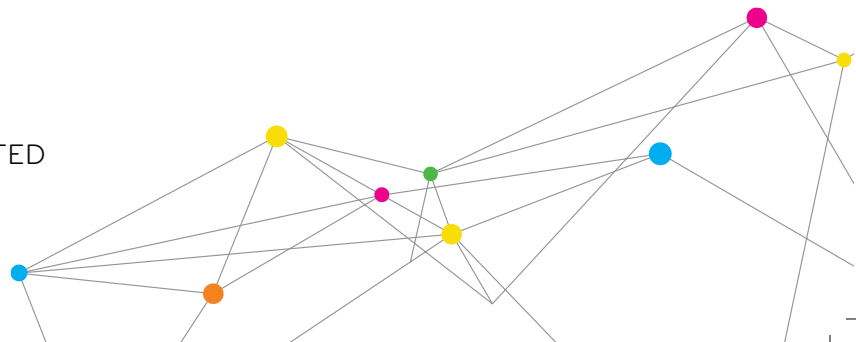
TSI is the world leader in condensation particle counter technology, supplying commercial instruments since 1979. TSI's world-class classifiers and condensation particle counters are used by national and standards labs worldwide. The same technology is used in the AeroTrak 9001 Particle Counter. Backed by a standard one-year warranty and TSI's long-standing reputation for high quality, there is no other condensation particle counter like it on the market today.

## Features and Benefits

- + 10 nm sensitivity
- + 2.83 l/min (0.1 CFM) sample flow
- + Low false-count rate ( $< 1$  particle/ft<sup>3</sup>) provides accurate measurements at low particle concentrations
- + Fast response
- + Uses water as working fluid, keeping alcohol and organic compounds out of the clean room
- + Data Storage: 250 zones, 999 locations, and 10,000 samples
- + USB, USB storage device, and Ethernet data transfer
- + External reporting via TrakPro™ Lite Secure Software
- + Industry's loudest audible alarm
- + Easy, icon-driven touch screen operation
- + Allows storage and recall of specific recipes and zone configurations
- + Works with optional high -pressure diffuser for measurements of high pressure gases
- + Displays up to three environmental parameters
- + 316L stainless steel enclosure



UNDERSTANDING, ACCELERATED



## SPECIFICATIONS

### AEROTRAK CONDENSATION PARTICLE COUNTER MODEL 9001

9001	
Size Range	10nm - 1000nm
Particle Channel Sizes	Single channel
Counting Efficiency	50% at 10nm, 100% for particles ≥20nm
Concentration Limits	25,000,000 p/Cu. ft @ 10% coincidence
Light Source	Long life laser diode
Zero Count	<1 count in 10 minutes
Flow Rate	2.83 L/min (0.1 CFM)
Flow Rate Control	Electronic automatic closed loop (patented flow control technology)
Sample Tube Extension	Up to 3 m (10 ft) for 10 nm particles
Sampling Modes	Manual, automatic, beep; count or concentration
Sampling Time	1 second to 99 hours
Sampling Frequency	1 to 9999 cycles or continuous
Exhaust	HEPA filtered
Vacuum Source	Internal pump
Communication Mode	Modbus TCP over Ethernet or USB
Audible Alarm	Built-in; > 85 dBA at 1 meter (adjustable)
Status Indicators	Flow, laser and temperatures
Alarm Output	Dry contacts, closed when alarm is engaged
Alarm Limits	Programmable
Display	VGA 14.5 cm (5.7 inch) touch screen display
Languages	English, German, French, Spanish, Japanese, Chinese (simplified), Italian
Software	Compatible with TrakPro Lite Secure and FMS 5 Software

Specifications are subject to change without notice.

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Environmental Sensor Interface	Support 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, particle concentration, 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
Calibration Frequency	Recommended minimum of once per year
Dimension (H x W x D)	52.1 cm x 22.9 cm x 21.8 cm (20.5 in x 9.0 in x 8.6 in) (without water bottle)
Weight	12.1 kg (26.7 lbs)
Power	110 to 240 VAC universal power supply
External Surface	316L Stainless steel
Operating Range	10° to 40°C (50° to 104°F)
Storage Range	-40° to 70°C (-40° to 158°F)
Standards	N/A
Warranty	One year
Included Accessories	Quick Start Guide, manual on a CD, power supply, purge filter, 2 inlets (barbed inlet and a 3/16" OD straight tube connector inlet), water bottle, bracket for water bottle and USB cable
Optional Accessories	TSI velocity probes, Temp/RH probe, sample tubing
Patents	Visit <a href="http://tsi.com/patents">tsi.com/patents</a>



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