



Condensation Particle Counter



A portable, battery-powered CPC that detects particles down to 10 nm!

Features and Benefits

- Battery-powered operation
- Programmable data-logging capabilities
- Particle size range of 0.01 to >1.0 μm
- Concentration range of 0 to 100,000 particles/cm³
- Built-in LCD display
- RS-232 serial data port

Hand-held Condensation Particle Counter Model 3007

The Model 3007 is a hand-held particle counter intended for measuring ultrafine particles in a wide variety of applications. Its small size and ergonomic design make it the best choice for short-term outdoor and indoor air quality monitoring, nanoparticle work area surveys, and mobile aerosol research. This highly portable CPC weighs only 1.7 Kg (3.8 pounds)!

Applications

TSI offers the most comprehensive line of CPCs available. Building on a tradition of 30 years experience, TSI CPCs have become the standard to which all others are compared.

General applications include:

- Basic aerosol research
- Filter and air cleaner testing
- Atmospheric and climate studies
- Particle formation and growth studies
- Combustion and engine exhaust studies
- Inhalation or exposure chamber studies
- Health effects studies



TRUST. SCIENCE. INNOVATION.

Specifications

Model 3007 Hand-held Condensation Particle Counter

Particle Size Range

Min. Detectable Particle (D_{50}) 10nm
 Max. Detectable Particle >1 μm

Concentration Range

0 to 100,000 particles/cm³

Minimum Displayable Concentration Value

1 particle/cm³

Concentration Accuracy

±20%

False Background Counts

<0.01 particles/cm³

Response Time

<9 sec for 95% response

Environmental Operating Conditions

Ambient Temperature 10 to 35°C (50 to 95°F)
 Storage Temperature -40 to 70°C (-40 to 160°F)

Flow Rate

Detected Aerosol Inlet 100 cm³/min
 700 cm³/min (nominal)

Aerosol Inlet Diameter

1/4-in. O.D.

Power Requirement

Battery Type 6 AA alkaline or rechargeable
 Battery Life 5 hours (alkaline batteries at 21°C)

Alcohol Requirement

Type 99.5%+ reagent-grade isopropyl alcohol
 Hours Per Fill 6 hours at 21°C (70°F)

RS-232 Output

9600 Baud rate

Software

Supplied with TSI Aerosol Instrument Manager® software, CPC Module

Calibration check

Recommended annually

Dimensions (LWH)

CPC 29.2 cm × 14 cm × 14 cm
 (11.5 in. × 5.5 in. × 5.5 in.)
 Carrying Case 53 cm × 36 cm × 21 cm
 (21 in. × 14 in. × 8.3 in.)

Weight

CPC with Batteries 1.7 kg (3.8 lbs)
 Instrument with Accessories in Case 7.7 kg (16.8 lbs)

Specifications are subject to change without notice. TSI, the TSI logo, and Aerosol Instrument Manager are trademarks of TSI Incorporated. Microsoft and Windows are trademarks of Microsoft Corporation.

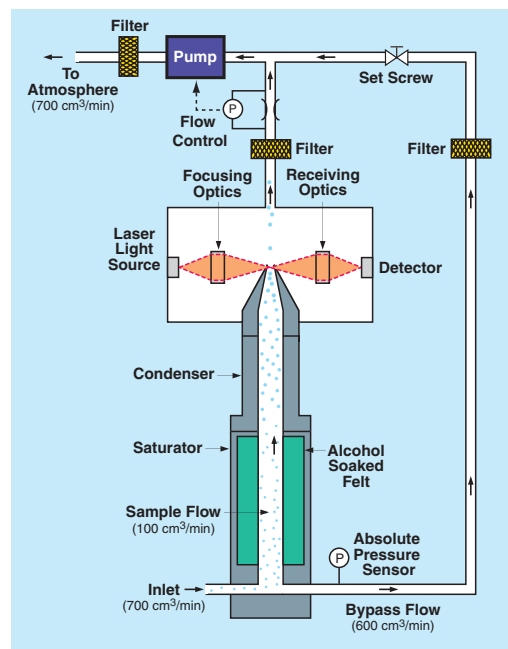


Operation

In general, laminar-flow CPCs operate by drawing an aerosol sample continuously through a heated saturator, in which alcohol is vaporized and diffuses into the sample stream. Together, the aerosol sample and alcohol vapor pass into a cooled condenser where the alcohol vapor becomes supersaturated and ready to condense. Particles present in the sample stream serve as condensation sites for the alcohol vapor. Once condensation begins, particles grow quickly into larger alcohol droplets and pass through an optical detector where they are counted easily.

Software

Every Model 3007 is supplied with Aerosol Instrument Manager® software designed for use with Microsoft® Windows® operating systems. The software is used for instrument control and provides data collection, management, and export capabilities, as well as several choices for data display.



TSI Incorporated - 500 Cardigan Road, Shoreview, MN 55126-3996 USA

USA	Tel: +1 800 874 2811	E-mail: info@tsi.com	Website: www.tsi.com
UK	Tel: +44 149 4 459200	E-mail: tsiuk@tsi.com	Website: www.tsiinc.co.uk
France	Tel: +33 491 95 21 90	E-mail: tsifrance@tsi.com	Website: www.tsiinc.fr
Germany	Tel: +49 241 523030	E-mail: tsigmbh@tsi.com	Website: www.tsiinc.de
Sweden	Tel: +46 8 595 13230	E-mail: tsiab@tsi.com	Website: www.tsi.se
India	Tel: +91 80 41132470	E-mail: tsi-india@tsi.com	
China	Tel: +86 10 8260 1595	E-mail: tsibeijing@tsi.com	



TRUST. SCIENCE. INNOVATION.

Contact your local TSI Distributor or visit our website www.tsi.com for more detailed specifications.