



OmniCount™ Portable Water-Based Condensation Particle Counter

Model 3002



Measure More, Even in Motion Dual Channel, Portable, Versatile

For aerosol researchers, environmental and health professionals seeking accurate ultra-fine particle (UFP) counts and concentration measurements, the OmniCount™ Portable Water-based Condensation Particle Counter Model 3002 provides a versatile, portable, and cost-effective solution.

The Model 3002 is a portable, water-based condensation particle counter (PWCP) with dual-channel synchronized measurement capabilities, that allows simultaneous comparison of UFP concentrations in two nearby environments, making it ideal for applications like real-time personal protective equipment (PPE) fit assessment, indoor/outdoor air quality assessments, and more.

Capable of precise measurements in mobile and stationary environments where power may be unavailable, it operates for >4 hours continuously, ensuring reliable data collection, even when tilted. Its Bluetooth® LE connectivity further enhances usability, enabling seamless, wireless data monitoring for on-the-go analysis.

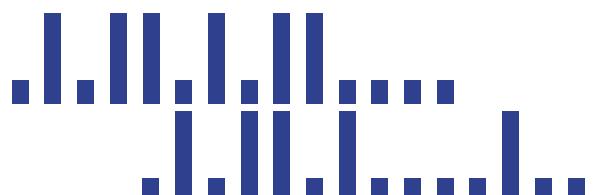
This powerful tool is perfect for researchers and professionals who need precise, dual-channel, cost-effective measurements without the limitations of traditional laboratory instruments.

Features and Benefits

- Two channels for simultaneous measurements from different locations or inputs
- Lightweight and portable, ideal for fieldwork
- Detects particles ranging from <10-1,000 nm
- >4 hr battery operation (at 20°C) and plug-in power options for flexibility
- Hot-swappable battery
- Easy data management with Bluetooth® LE and USB-C, on-board data storage with three different operation modes, PC software for data collection, access and export
- Suitable for various particle concentration levels (up to 200,000 particles/cm³)
- Cost-effective and environmentally friendly, uses distilled water, each CPC samples at 0.1 L/min

Applications

- Drone-based measurements
- Personal monitoring
- Mobile ambient air monitoring
- Filter assessment
- Inside/outside comparisons
- Real-time PPE assessment
- Harmful emissions monitoring



Specifications

OmniCount™ Portable Water-Based Condensation Particle Counter

Model 3002

Number of Channels

2

Sample Flow Rate

0.1 L/min (each channel)

Particle Size Detection (D_{50})

<10 nm

Concentration Range:

0 to 200,000 #/cm³

Concentration Accuracy*

±20%

Channel to Channel Agreement

±15% (wicks at equivalent saturation states)

Zero Count Performance

<0.01 #/cc, for $T_{Mod} < T_{Sample Dew}$ ~75% RH

Response Time

$t_{10-90} < 2s$

Environmental Operating Conditions

8-38°C

75-105 kPa

0-90% RH (non-condensing)

Wick Life

Typically > 8 h, but dependent on sample RH

Battery Life

>4 hours at 20°C

Data Storage Capacity

Standard Mode: 24 hours

Fit Test Mode: 19 hours

High Frequency Mode: 11 hours

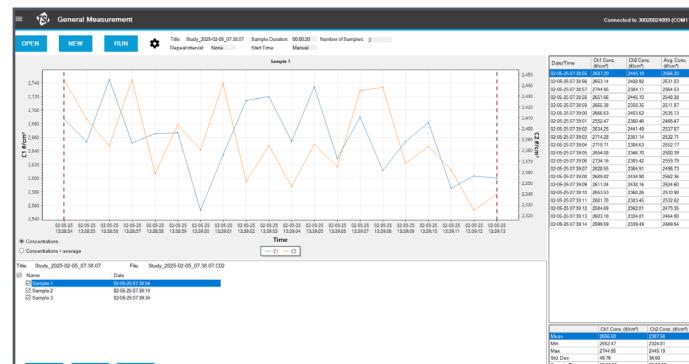
Weight

1 kg (2.2 lb)

Dimensions

16 cm x 12 cm x 8 cm (6.6 in. x 4.7 in. x 3.1 in.)

*At 25°C, with fully saturated wicks. Absolute accuracy decreases with two or more of the following occurring simultaneously: partially saturated wicks, elevated temperatures, and elevated concentrations, as indicated by pulse ratio status.



TSI® OmniCount™ Software

Bluetooth® LE Module Specifications

for Taiwan Compliance:

RF Module Brand Name

u-blox

RF Module Model

NINA-B306

RF Frequency Range

2400-2480 MHz

RF Band

2.4 GHz, 40 channels

NCC ID

CCAI19LP1670T0

To Order

Specify

3002

3002-WICKKIT

3002-BATTERY

3002-BATTCHARGER

Description

OmniCount™ Portable Water-based Condensation Particle Counter (PWCP)

Set of two replacement wicks

Spare battery pack

2 port external battery charger

Specifications are subject to change without notice.

The Bluetooth® word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. and any use of such marks by [licensee name] is under license. Other trademarks and trade names are those of their respective owners.

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



Knowledge Beyond Measure.

TSI Incorporated - Visit our website www.tsi.com for more information.

USA Tel: +1 800 874 2811
UK Tel: +44 149 4 459200
France Tel: +33 1 41 19 21 99
Germany Tel: +49 241 523030

India Tel: +91 80 67877200
China Tel: +86 10 8219 7688
Singapore Tel: +65 6595 6388

