



Knowledge Beyond Measure.

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 (PWPC) 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

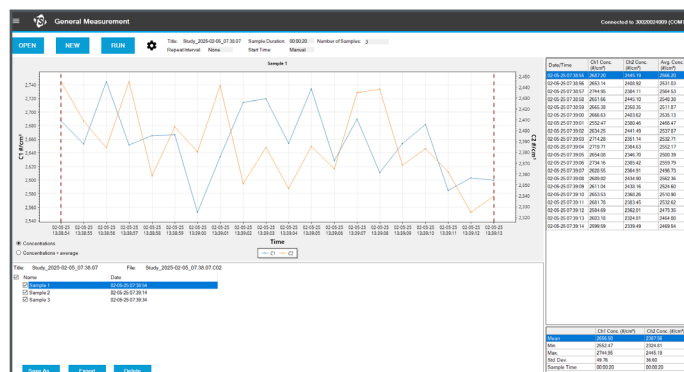
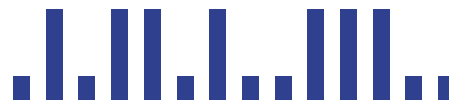
Weight

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

Description OmniCount™ Portable Water-based Condensation Particle Counter (PWPC)

3002-WICKKIT	Set of two replacement wicks
3002-BATTERY	Spare battery pack
3002-BATTCHARGER	2 port external battery charger

Specifications are subject to change without notice.

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USA	Tel: +1 800 874 2811	India	Tel: +91 80 67877200
UK	Tel: +44 149 4 459200	China	Tel: +86 10 8219 7688
France	Tel: +33 1 41 19 21 99	Singapore	Tel: +65 6595 6388
Germany	Tel: +49 241 523030		

