



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® 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® 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 100,000 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

PRELIMINARY



Specifications

OmniCount™ Portable Water-based Condensation Particle Counter Model 3002

Number of Channels

2

Sample Flow Rate

0.1 L/min

Particle Size Detection (D_{50})

~10 nm

Concentration Range: up to 100,000 #/cc

Linearity maintained at least through 100k #/cc

Concentration Accuracy

±20% from 5–30°C, ±25% from 30–38°C

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

5–38°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

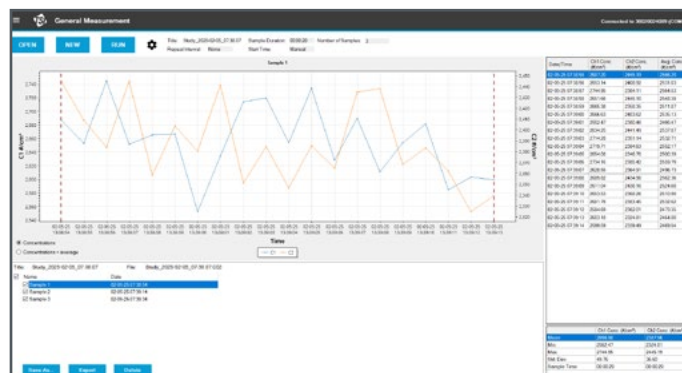
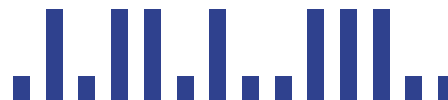
High Frequency Mode: 11 hours

Weight

1 kg (2.2 lb)

Dimensions

16 cm x 12 cm x 8 cm (6.3 in. x 4.7 in. x 3.1 in.)



TSI® OmniCount™ Software

To Order
Specify
3002

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

Specifications are subject to change without notice.

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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

