

# BRECHTEL

**Solutions for your  
research challenges**

## **aMCPC Advanced Mixing-based Condensation Particle Counter Model 9403**



Rapid particle number concentration measurements in a compact package

### **Features:**

- 180 ms ultra-fast time response
- 7 nm 50% detection diameter
- Portable, lightweight, low power use
- Self-contained with on-board data storage
- Independently proven 100% counting efficiency
- Tilt tested anti-flooding design
- Field tested on unmanned aerial vehicles (UAVs)
- No external pump required

**[www.brechtel.com](http://www.brechtel.com)  
[sales@brechtel.com](mailto:sales@brechtel.com)**

# Providing Aerosol Measurement Solutions

## Specifications

Parameter	Value
D50	7.0 nm
Particle size range	7-2,000 nm diameter
Maximum concentration	100,000 cm <sup>-3</sup>
Coincidence corrected concentration uncertainty @ 100,00/cc	+/- 8%
Sample flow	0.36 or 0.72 lpm
Response time	180 milliseconds
Background	<0.001 cm <sup>-3</sup>
Butanol use	1.9 ml/hr
Reservoir capacity	250 ml (1000 ml available)
Data output	RS-232, BNC
Operating pressure range	0.2-1.0 atm <sup>NOTE 1</sup>
Operating temperature range	-20°C to 38°C
Operating humidity range	0 - 95% RH non-condensing <sup>NOTE 2</sup>
Size	5.8 x 8 x 5.3 in/ 14.7 x 20.3 x 13.5 cm
Weight	6 lbs/2.7 kg
Supply voltage	12 VDC
Power	50 watts

Notes:

1. Operation at pressures <0.85atm requires factory installed saturator flow control
2. ACC-Dryer option recommended for high RH operation

Copyright ©2020 All specifications are subject to change without notice. BMI assumes no responsibility for inaccuracies in this document or for any obligation to update information in this document. BMI reserves the right to change, modify, transfer or otherwise revise this publication without prior notice.

\*Some products may be shown with optional accessories, which are sold separately. Items shown may not be to scale.

## Applications

- Mobile platform sampling: UAVs, Balloons, Kites, Aircraft, Vehicles
- Rapid DMA scanning number size distribution measurements as part of Model 9404 mSEMS
- Ambient particle concentration measurements
- Climate change field studies
- Air quality monitoring
- Studies of health impacts by aerosols

## How to Order

Part No.	Description
9403	Advanced Mixing-based Condensation Particle Counter
MCPC-P115	External vacuum pump, 115 V
MCPC-P230	External vacuum pump, 230 V
ACC-PC	Computer with 94XX series instrument control software
ACC-PWR	External 12 VDC power supply for ground operation of any 94XX series instrument
ACC-MCKit	Maintenance kit for 9403-aMCPC
8008	Particle Round Jet Impactor (0.5 µm cut size, 0.7 lpm flow)
8009	Particle Round Jet Impactor (1.0 µm cut size, 0.7 lpm flow)
MCPC-BOT	Large 1000 ml butanol fill bottle for MCPC
ACC-Dryer	Sample flow dryer