BRECHTEL

Solutions for your research challenges

aMCPC Advanced Mixing-based Condensation Particle Counter Model 9403



Miniaturized total particle number concentration monitor

Features:

- 180 ms ultra-fast time response
- 8 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

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Specifications

Parameter	Value
D50	7.0 nm
Particle size range	7-2,000 nm diameter
Maximum concentration	100,000 cm ⁻³
Coincidence corrected concentration uncertainty @ 100,00/cc	+/- 8%
Sample flow	0.36 or 0.72 lpm
Response time	180 milliseconds
Background	<0.001 cm ⁻³
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 ^{NOTE1}
Operating temperature range	-20°C to 38°C
Operating humidity range	0 - 95% RH non-condensing ^{NOTE2}
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 <850mbar requires factory installed saturator flow control

2. MCPC-Dryer option recommended for high RH operation

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*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, 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
- · Aerosol health impacts studies

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 with 0.5 μm cut size, 0.7 lpm flow
8009	Particle round jet impactor with 1.0 μm cut size, 0.7 lpm flow
MCPC-BOT	Large 1000 ml butanol fill bottle for MCPC
MCPC-Dryer	Sample flow drying package MCPC

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