

# 15000-OEM

## OEM Condensation Particle Counter (CPC) Optical System

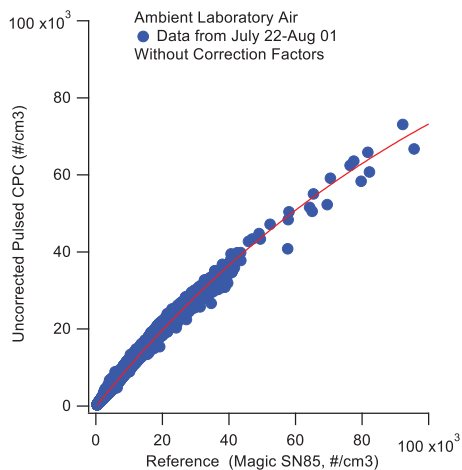
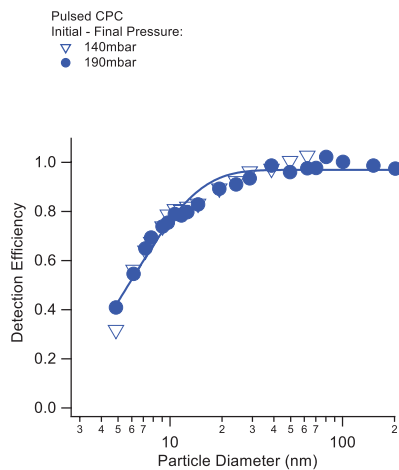
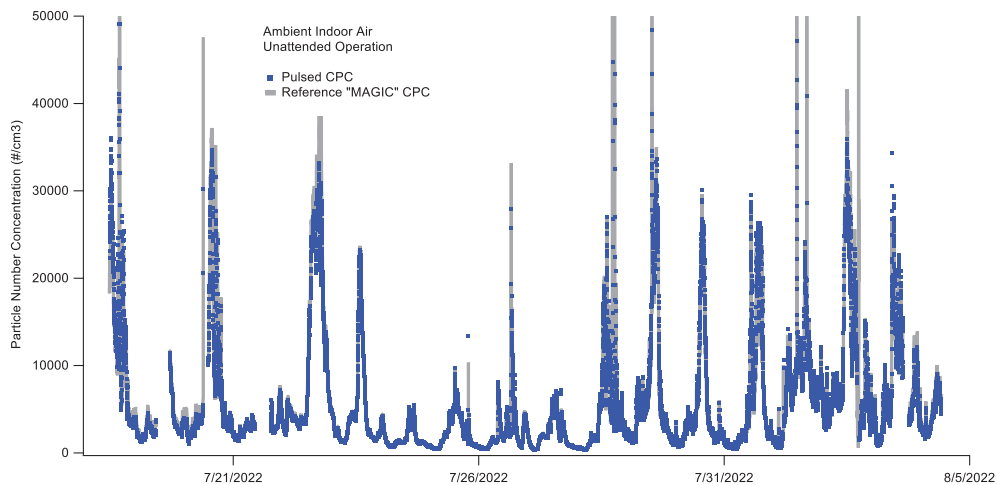


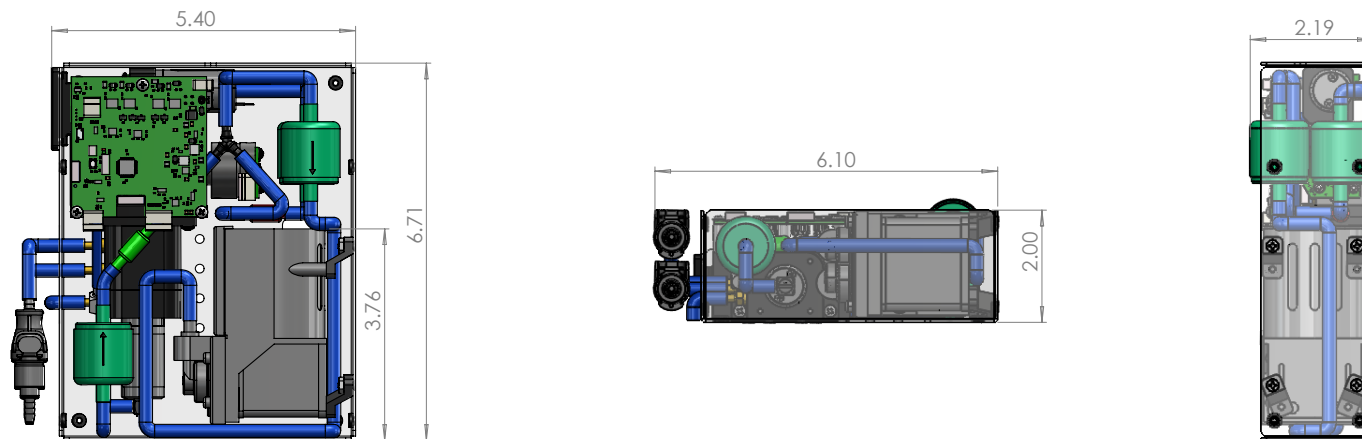
The 15000-OEM condensation particle counter (CPC) is designed to detect and count aerosol particles by first enlarging the particulates using a supersaturated vapor. These robust monitors provide reliable, accurate measurement of airborne nanoparticles across a very wide size range allowing for the detection of environmental and public health concerns involving airborne particulates.

Particles Plus® condensation particle counter measures ultrafine particulates as small as 5 nm (0.005 µm) and provides a total particle count above this threshold, this data is also stored in each of the above samples to provide a more complete view of air quality.

### 15000-OEM: Features and Benefits

- Total particulate counts above the ultrafine threshold (0.005 µm, from the CPC)
- CPC Aerosol Concentration Range of 0 to 100,000 particles per cubic centimeter
- Long-lasting water-based CPC
- Long life laser diode technology
- Assembly mounted on back plate for ease of integration
- 1 year limited warranty. Extended warranties available.





## Specifications

Model 15000-OEM	Condensation Particle Counter
Measured Parameter	Ultrafine particle concentration
Operating Principle	Optical light scattering after water vapor growth
Condensation Approach	Near-adiabatic expansion with single particle counting
Concentration Range	0 to 100,000 particles/cm <sup>3</sup>
Particle Size Range	0.005 to 3.0 μm
Size Channels	0.005 μm threshold (one size bin)
Efficiency	±10% below 30,000/cm <sup>3</sup> , ±20% at higher concentrations
Sample Rate	6s cycle time
Number of Channels	1
Liquid Requirement	Distilled water
Water Consumption	< 3mL/day
Flow Rate	Variable
Internal Vacuum Pump	Internal pump with local control
Operating Conditions	45° to 100°F (5 to 38°C)
Communication Modes	Modbus (RTU/ASCII) via 3.3v UART
Instrument Calibration	Recommended minimum once every one year
Dimensions (L x W x H)	5.40 x 2.00 x 6.71 inch (13.71 x 5.08 x 17.04 cm)
Weight	2 lbs (907 grams)
Optional Accessories	Standard filter, External 1L bottle
Data Storage	65,000 sample records (rotating buffer) with environmental data
Operating Conditions	41° to 104°F (5° to 40°C) / 20% to 95% non-condensing
Storage Conditions	32° to 122°F (0° to 50°C) / Up to 98% non-condensing
Power	7 - 15 Vdc
Power Consumption	~12 Watts with the pump and ~8 Watts without the pump
Warranty	1 year limited warranty. Extended warranties available.