

## WCPC-1003S(Water-based Condensation Particle Counter)

A new approach is applied using particle condensation technique. When a particle is placed in a super-saturated vapor, the super-saturated vapor molecules will start to condense onto the particle. The particle with condensed vapor will continuously grow and become a large droplet. This large size droplet can easily be detected by an optical electronic system.

### Benefits and Applications

- Single Particle Counting with real-time for accurate measurement (0 ~ 10,000 particles/ cm<sup>3</sup>)
- With water as the working fluid and HEPA-filtering of the exhaust – use the clean room environment
- With High Pressure Diffuser(HPD-75), Possible to Monitor in high pressure gas lines

### Feature

- 10 nm Detection Limit
- 2.83 L/min of aerosol Flow rate
- Built-in Color Touch Screen Display (7")
- Adopted in Internal Thermal Printer
- Contaminant particle detection in cleanroom and high purity gas systems
- Ethernet, USB Serial Communication

### SPECIFICATIONS

**Particle Size Range :** Min. Detectable Particle(D50): 10 nm, verified with DMA-classified

**Particle Concentration Range :** Single Particle Counting: 0 to 10,000 particles/ cm<sup>3</sup>

**Particle Concentration and Accuracy :** ±10 % at 10,000 particles/cm<sup>3</sup>

**Flow rate :** 2.83 ± 0.28 L/min

**Response Time :** ~ 0.8 sec., (95% Response to Concentration Step Change)

**False Background Counts :** ~5×10<sup>-6</sup> /cm<sup>3</sup>, 12 hrs average

**Aerosol Medium :** Inert Gas for Air, N<sub>2</sub>, Ar

**Environmental Operating Conditions :** Ambient Temp. & Humidity: 10 to 35°C  
 and 0 to 90% RH, Non condensing

**Inlet Pressure :** 75 to 110 kPa

**Working Fluid :** Distilled Water only

**Water Supply System :** External 1 Liter Bottle used (5 days of continuous operation)

**Vacuum :** Internal Vacuum Pump

**Outputs :** USB Serial, Ethernet, SD Card, Internal Thermal Printer

**Digital Display:** 7" Color touch screen

**Power :** Adapter for 24 VDC, 6.0A

**Communication:** USB

**Dimensions (LWH):** 310 x 200 x 270 mm (12.2 x 7.9 x 10.6 in)

**Weight:** 9.4 kg (20.7 lb)

#### Parts Number

- |           |   |
|-----------|---|
| • 6C06001 | Power Cable                                 |
| • 7004014 | CPC Extra Filter                            |
| • 7008001 | Drain Bottle / Fill Bottle                  |
| • 9005011 | Printer paper                               |
| • 6C06007 | USB Download cable, type A to B & LAN cable |
| • 9003005 | Sampling Tube (1 m)                         |
| • 2602022 | Monitoring software Program                 |



The efficiency curve

