

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 optical electronic system.

Benefits and Applications

- Single Particle Counting with real-time for accurate measurement (0 ~ 10,000 particles/ cm³)
- 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 Monitoring 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/ cm³

Particle Concentration and Accuracy : ±10 % at 10,000 particles/cm³

Flow rate : 2.83 ± 0.28 L/min

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

False Background Counts : ~5x10⁻⁶ /cm³, 12 hrs average

Aerosol Medium : Inert Gas for Air, N₂, 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

