

# Nano-ID<sup>®</sup> NPC10

NanoParticle Counter



The Nano-ID NPC10 is the first Condensation Particle Counter specifically developed for ultra-clean manufacturing environments. This instrument combines 10 nm sensitivity with high sample flow rate and the lowest zero count specification on the market.

The Nano-ID NPC10 provides single-particle-detection for the cleanest manufacturing and testing applications, and uses the shortest time intervals in the industry to obtain statistically valid measurements.

Designed for plug-and-play operation, the unit is ready to sample aerosol particles in minutes. Set up is simply applying power and connecting the input and output sample lines.

All of the user-selectable variables are configured through the touchscreen display. The color display provides graphical trending of particle contamination. Data is automatically saved to the onboard memory and can be exported via ModBus TCP/IP or USB port.

The proprietary non-hazardous working fluid is superior to isopropyl alcohol, n-butyl alcohol, and water-based condensation particle counters. The fluid provides long use between refills, no odors, and a sample reservoir that captures and recycles most of the working fluid.

The Nano-ID NPC10 is suitable for use in ISO Class 1 through Class 3 environments.

## BENEFITS

### Continuous and Unattended Operation

- Working fluid reservoir only needs fluid replenished at about 2,000 hours of use

### Working Fluid

- Does not use n-butyl or isopropyl alcohol
- No special handling and storage requirements as are associated with alcohol-base fluids

### Data Storage

- Internal memory can store one year of data

### Pump

- Quiet pump provides regulated sample flow

## FEATURES

- 10 nm sensitivity
- 2.83 LPM sample flow rate
- Up to 2,000 hours continuous run time
- Large color IR touchscreen display
- Data export via ModBus TCP/IP and USB
- Sample high-pressure gases using an optional high-pressure diffuser

## APPLICATIONS

### Semiconductor

- Point-of-use monitoring troubleshooting

### Disk Drive

- 2.83 LPM flow rate does not disrupt air flow and 10 nm sensitivity provides essential data for hard disk manufacturing

### Quality Control

- Manufacturing quality control of ultra-fine nanoparticles size distribution during synthesis

### Air Quality Monitoring

- Detection of airborne ultra-fine and nanoparticles in workplaces and other sensitive environments

### Exposure Monitoring

- Risk assessment of exposure to airborne nanoobjects and exposure-dose relationships



*Without measurement there is no control*



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Specifications

Size range	10 - 1000 nm
Aerosol flow rate	2.83 LPM (0.1 CFM $\pm$ 5%)
Sampling period	10 to 600 seconds, user-selectable
Max. particle concentration	10 <sup>5</sup> / L
Working fluid	Glycerol
Working fluid consumption and instrument volume	2000 hours between refills Reservoir has a volume of 20 ml when full.
Laser classification	Class 1, complies with US 21 CFR 1040.10 and EN60825-1. An enclosed, internal Class 3B laser is used per EN60825-1.
Data storage	> 1000 days of continuous sampling
Dimensions (l,w,h)	11.8 x 13 x 10.2 in (30 x 33 x 26 cm)
Weight	13.2 lb (6 kg)
Power	100 - 240 VAC, 1.5 A, 50/60 Hz
Data output	USB flash drive and ModBus TCP/IP
User interface	Color front-mounted touchscreen Optional USB mouse (not supplied)
Temperature range	59 - 82 °F (15 - 28 °C)
Humidity range	10 - 90% RH, non-condensing
Operating pressure	1 atm (ambient)
Maximum altitude	6562 ft (2000 m)
Use	Indoor use only
Warranty	1 year

## HEADQUARTERS

5475 Airport Blvd  
Boulder, Colorado 80301 USA  
T: +1 303 443 7100, +1 800 238 1801

Instrument Service & Support  
T: +1 800 557 6363

Customer Response Center  
T: +1 877 475 3317  
E: info@pmeasuring.com

www.pmeasuring.com  
info@pmeasuring.com



## MALAYSIA DISTRIBUTOR

ENVIROTERM SDN. BHD.  
HEAD OFFICE  
Lot 5035, Jalan 18/62,  
Taman Perindustrian Sri Serdang,  
43300 Seri Kembangan,  
Selangor D.E., Malaysia.

T: +603 8210 8338  
F: +603 8943 6012  
E: sales@enviroterm.com  
W: www.enviroterm.com

## NORTHERN OFFICE

5112, Jalan Capri,  
Taman Capri,  
12100 Butterworth,  
Pulau Pinang, Malaysia.

T: +604 331 1371  
F: +604 331 1373  
E: sales@enviroterm.com  
W: www.enviroterm.com

## SOUTHERN OFFICE

37-1, Jalan Setia Tropika,  
Taman Setia Tropika 1/25,  
81200 Johor Bahru,  
Johor D.T., Malaysia.

T: +607 236 2768  
F: +607 236 2769  
E: sales@enviroterm.com  
W: www.enviroterm.com

