

# Troubleshoot and maintain indoor air quality with the new Fluke 983 Particle Counter

## Technical Data

The particle counter is an essential tool in the HVAC/IAQ professional's toolbox. From filter testing to basic IAQ investigations, the particle counter equips the user with valuable data concerning the concentration and source of particulates in the tested environment.

The new Fluke 983 Particle Counter is the preferred choice for HVAC and IAQ professionals, measuring temperature and relative humidity as well as particle size. With expanded data logging and six-channel particle size display, the Fluke 983 allows users to run more tests

quickly, with less time spent cycling through screens to view the data. The Fluke 983 is lightweight and easy to use in any position, with a comfortable hand strap and rugged holster.



### Fluke 983 Particle Counter

- Selectable sample time, count data, programmable delay
- Set sample size to cubic feet or liters, set temperature measurements to °C or °F
- Data displayed in totalize or concentration modes
- Logged samples include date, time, particle counts, sample volume, temperature and relative humidity.

### General Features

- Compact and lightweight (1.0 kg/2.2 lbs)
- Graphic liquid crystal display with backlight
- AC adapter, 12 V DC at 2.5 A, 90 to 250 V AC, 50 to 60 Hz
- Rechargeable battery (NiMH, 4.8 V at 4.5 Ah)
- Simple user interface
- Operating: 10 °C to 40 °C (50 °F to 104 °F), 20 % to 90 % relative humidity, non-condensing
- Meets 115B9921:1997 and CE standards
- Included:
  - Certificate of Calibration (NIST)
  - Windows-compatible software download utility
  - DB9 to RS-232 adapter and cable
  - Isokinetic probe
  - Zero count filter
  - High purity tubing
  - 1/8 in. hose barb adapter
  - Power supply
  - Operation manual
  - Hard molded case

## Specifications

6 size channels	0.3, 0.5, 1.0, 2.0, 5.0, 10.0 µm
Flow Rate	0.1 cfm (2.83 L/min) controlled by internal pump
Count Modes	Concentration, totalize, audio
Counting Efficiency	50 % @ 0.3 µm; 100 % for particles > 0.45 µm (per JIS B9921:1997)
Zero Count	1 count/5 minute (JIS B9921:1997)
Coincidence Loss	5 % at 2,000,000 particles per ft <sup>3</sup>
Relative Humidity	± 7 %, 20 % to 90 % non-condensing
Temperature	± 3 °C, 10 °C to 40 °C (50 °F to 104 °F)
Data Storage	5000 sample records (rotating buffer) of date, time, counts, relative humidity, temperature, sample volumes, alarms, label
Alarms	Counts, low battery, sensor fail
Delay Time	0 to 24 hours
Sample Inlet	Isokinetic probe
Interface	RS-232 and RS-485 via RJ-45
Dimensions (W x L x D)	11.43 cm x 20.96 cm x 5.72 cm (4.5 in x 8.25 in x 2.25 in)
Weight	1.0 kg (2.2 lbs)
Environmental	Operating: 10 °C to 40 °C (50 °F to 104 °F), 20 % to 90 % relative humidity, non-condensing Storage: -10 °C to 50 °C (14 °F to 122 °F), up to 90 % relative humidity, non-condensing
Power	AC adapter, 12 V DC at 2.5 A, 90 to 250 V AC, 50 to 60 Hz
Rechargeable Battery	NiMH, 4.8 V at 4.5 Ah; replaceable
Battery Live / Recharge Time	8 hours / 2 hours
Calibration	PSL particles in air (NIST traceable)

## Other IAQ Tools from Fluke

### CO-205 Aspirator Kit

The CO-205 flue gas sampling accessory kit contains all the components necessary to provide a clean sample for the Fluke family of gas measuring devices. The CO-205 accessory kit includes:

- Stainless steel sampling tube
- Industrial-grade hand operated aspirator to draw flue sample
- Easily replaceable particulate filter
- Specially designed nose cap for connection to the Fluke CO-210/CO-220.



### CO-210 Carbon Monoxide Probe

- Used as an accessory to a digital multimeter with DC millivolt inputs
- Displays CO level readings from 0 to 999 ppm, with a resolution of 1 ppm and accuracy of ± 3 %.
- Also used as a standalone device with an LED indicator and beeper that triggers with increasing frequency as CO levels rise.



### CO-220 Carbon Monoxide Meter

- Standalone CO meter that does not require a digital multimeter
- Large backlit LCD displays CO levels from 0 to 1000 ppm.
- Beeper triggers with increasing frequency as CO levels rise.
- MAX hold function stores and displays the maximum CO level.
- Automatic sensor zeroing and self-test upon startup.



## Ordering Information

<b>Fluke-983</b>	Particle Counter
<b>Fluke-CO-205</b>	Aspirator Kit
<b>Fluke-CO-210</b>	Carbon Monoxide Probe
<b>Fluke-CO-220</b>	Carbon Monoxide Meter

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