SPECTREX CORPORATION

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PARTICLE COUNTER

HPC 600 AIRBORNE PARTICLE COUNTER

The HPC 600 handheld laser particle counter is the latest innovation in the demanding application of airborne particle counting. It is useful in counting particles in ultra-clean environments by its single particle counting ability. The instrument consists of a handheld set with a main base unit that allows users to conduct the sampling with a handheld set while easily expanding to multiple functionalities with a base unit. These extended functions include data downloading, data real-time printing, software upgrading, battery charging and remote sampling. In addition to USB and RS232 interfaces, the RJ45 interface allows users to conduct the remote sampling away from the sampling location.

The HPC 600 is the world's first hybrid handheld optical particle counter. The instrument is a breakthrough of a new generation of particle counters that combines the traditional handheld instruments with functionalities of portable instruments. It is in compliance with the international standards (JIS B 9925:1997 and ISO14644-1) and supports both metric and English systems. All of its key components are made in the USA, Germany and Japan. It features high sensitivity, multiple functional capabilities, ease of use and reliability for extremely sensitive environmental measurement and advanced applications

Features:

- All 6 channels continuously adjustable with 0.1 micron step resolution
- Sample to sample reproducibility
- Combines both handheld and portable functionalities with a built-in mini-printer
- 6000 data points storage/memory
- Automatic sampling and excess-count-limit warning
- USB, RS232 and RJ45 interfaces for data download and remote sampling
- High precision, digital external temperature and humidity sensors
- Durable key pads with a large blue LCD display

Applications:

- Clean room monitoring
- Indoor air quality testing
- Filter testing
- Contamination control
- Particle size distribution analysis

Specifications:

Light Source:	Laser diode (>100,000 hours)
Channels:	0.3 - 25 µm (six default channels: 0.3, 0.5, 0.7, 1.0, 2.0, 5.0 µm) and user configurable on any channel with 0.1 µm resolution
Sensitivity:	0.3 µm
Counting Efficiency:	50 ± 20% @ 0.3 µm, 100 ± 10% @ 0.45µm
Coincidence Loss:	<5% @ 70,000 particles/liter or <5% @ 2,000,000 particles/ft³
Zero Count:	<1 count per 5 minutes
Flow Rate:	2.83 L/min (0.1cfm)
Sampling Time:	User defined: (up to 59m59s) and auto repeat (up to 99 times)
Count Limit Warning:	FED209E and ISO 14644-1 standards
Sampling Mode:	Cumulative, differential, concentration (counts/liter, counts/cubic foot)
Error Indicator:	Excess count limit, optics contamination, loss of power, insufficient battery power
Interface:	USB, RS232, RJ45
Internal Memory:	6000 data points storage/memory (1000 sets)
Power:	Removable rechargeable Lithium battery (7.4V/2800mAh) or 12VDC AC adapter (100-240 input)
Max. Operating Time:	Continuous operation > 5 hours with Lithium battery
Dimensions:	Handheld: 185mm(H) x 90mm(W) x 48mm(D) Base unit: 152mm (Dia) x 90mm(H)
Weight:	< 800 grams (including battery)
Environmental Conditions:	Operating: 5 - 45°C, < 90%RH Storage: -20 ~ 65°C, < 90%RH
Standard Accessories:	Main base unit, AC adaptor, iso-kenetic probe, USB data cable, and data download software (CD)
Optional:	Digital temperature and humidity probe, zero-count filter, tripod

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