SPECTREX CORPORATION

Environmental and Analytical Instruments

Particle Counters

HPC-600 Airborne Particle Counter

Six-Channel Hybrid Handheld Particle Counter

DESCRIPTION

The HPC600 handheld laser particle counter is the latest innovation on demanding application of particle distribution measurement. It is useful in measuring particle distributions in ultra-clean environment by its single particle counting ability as well as in indoor air quality applications. The instrument consists of a handheld set with a main base unit that allows users to conduct the sampling around 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, remote sampling, etc. In addition to USB and RS232 interfaces, the RJ45 interface allows users to conduct the remote sampling away from the sampling location.

The HPC600 is the world's first of its kind hybrid handheld optical particle counter. The instrument is truly 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.

APPLICATIONS

- Clean environment monitoring
- Indoor Air quality
- Test/Check Filter seal and efficiency
- Trace contamination source
- Analysis of Particle size distribution

FEATURES

- Complete portability. Use it anywhere!
- Easy Do-it-Yourself Calibration (sealed standards provided)
- Compact & Rugged (15 lbs, floats)
- Quickly Counts & Sizes (16 seconds min.)
- Custom Easy-to-Use Software
- Eliminates Sample Cell Flushing
- Built in Magnetic Stirrer

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:	0.3µm
Counting Efficiency:	50±20% @0.3µm, 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 ISO14644-1 standards
Sampling Mode:	Cumulative, differential, concentration (counts/liter, counts/cubic foot)
Error Indicator:	Excess count limit, optics contamination, loss of laser power, insufficient battery power .
Interface:	USB, RS232, RJ45
Internal Memory:	6000 measurement data (1000 sets)
Power:	Removable, rechargeable Lithium battery (7.4V/2800mAh) or 12VDC AC Adapter (100~240V input)
Max. Operating time:	Continuous operation > 5 hours with Lithium battery
Dimension:	Handheld: 185 (H) × 90 (W) ×48 (D) mm Base unit: 152 (Dia.)× 90 (H) mm
Weight:	< 800 grams (including battery)
Environmental Condition:	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, data download software (CD)
Optional:	Digital temperature and humidity probe, zero-count filter, tripod