
Six-Channel Hybrid Handheld Particle Counter



HAL-HPC600

Features

- **All 6 channels continuously adjustable with 0.1 micron step resolution**
- **Combines both handheld and portable functionalities with a built-in mini-printer**
- **USB and RJ45 interfaces for remote real-time sampling and data download**
- **Long-distance remote sensing via Ethernet**
- **Up to 6000 internal data memory**
- **Excess-count-limit warnings**
- **High precision, digital, external temperature and humidity sensors**
- **Durable keypads with a large blue LCD display**

The HPC600 handheld laser particle counter is the latest innovation in the demanding application of particle distribution measurements. It is useful in measuring particle distributions in ultra-clean environments by its single particle counting ability as well as in indoor air quality applications. The instrument consists of a handheld monitor with a main base unit that allows users to conduct sampling with the portable handheld monitor while easily expanding to multiple functionalities provided by the base unit. These extended functions include real-time data remote sampling, printing, data downloading, software upgrades, battery charging, etc. In addition to USB interfaces, the RJ45 interface allows users to conduct remote sampling away from the sampling location via Ethernet/Internet.

The HAL-HPC600 is the world's first of its kind hybrid handheld optical particle counter. The instrument is truly a breakthrough for a new generation of particle counters that combine 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 CE certification. It supports both metric and English systems. All of its key components are made in the USA, Germany or Japan. It features high sensitivity, multiple functional capabilities, ease of use and reliability for extremely sensitive environmental measurements and advanced applications.

Applications

- Clean environment monitoring
- Indoor air quality
- Test/Check filter seal and efficiency
- Trace contamination source
- Analysis of particle size distribution

Specifications

Light Source	Laser diode (>100,000 hours)
Sensitivity	0.3 μ m
Size Range	0.3 ~ 25 μ m
Channels	User configurable on any channel with 0.1 μ m resolution (six default channel settings: 0.3, 0.5, 0.7, 1.0, 2.0, 5.0 μ m)
Counting Efficiency	50 \pm 20% @ 0.3 μ m 100 \pm 10% @ 0.45 μ m
Coincidence Loss	<5% @ 70,000 particles/liter or <5% @ 2,000,000 particles/ft ³
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	FED STD 209E (Class 1 ~ 100,000) or ISO 14644-1 (Class 2 ~ 9)
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 9VDC AC Adapter (100~240V input)
Max. Operating Time	Continuous operation > 5 hours with Lithium battery
Dimensions	Handheld: 185 (H) x 90 (W) x 48 (D) mm Base unit: 152 (Dia.) x 90 (H) mm
Weight	< 800 grams (including battery)
Environmental Conditions	Operating: 0 ~ 50 $^{\circ}$ C, < 90%RH Storage: -20 ~ 65 $^{\circ}$ C, < 90%RH
Accessories	Main base unit, AC adaptor, iso-kinetic probe, USB data cable, remote sampling and data download software (CD), zero-count/purge filter, digital temperature and humidity sensor probe, tripod, traceable calibration certificate