# H8306 Handheld Airborne Particle Counter
## 0.1 CFM (2.83 LPM)



The Airy Technology® H8306 Handheld Particle Counter is designed for cleanroom monitoring, indoor air quality, industrial hygiene, research, and health & safety applications. Its patented, feature-rich design enables dynamic environmental monitoring and versatile data reporting across multiple industries.

The H8306 measures particles from 0.3 to 25 µm in six user-selectable channels at a flow rate of 0.1 CFM (2.83 LPM). It offers data reporting in standard cleanroom formats or by mass concentration in µg/m³, with density and refractive index corrections. Included temperature and relative humidity probes, along with optional CO2 and TVOC sensors, provide comprehensive environmental monitoring.

With unique features like Particles/Second and the Real-Time Meter, the H8000 Series enables efficient, on-the-go particle investigations across nearly any environment. The instrument can also operate as a remote particle counter, leveraging its intelligent battery and power conservation modes to achieve up to 100 hours of battery life.

The Airy Technology® standardized hardware and firmware simplify maintenance and reduce the total cost of ownership. Combined with extensive remote diagnostics and a lifetime warranty, the H8306 ensures industry-leading performance and long-term value.
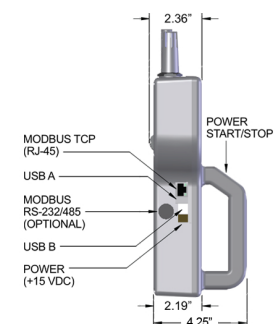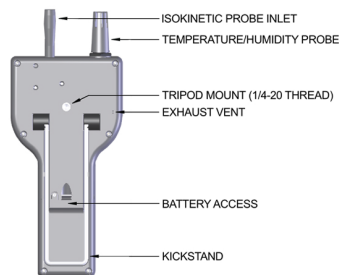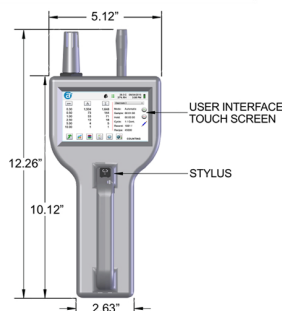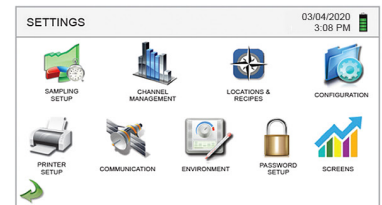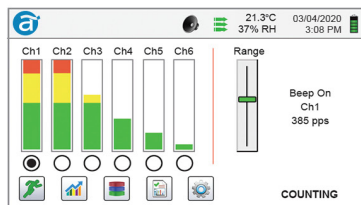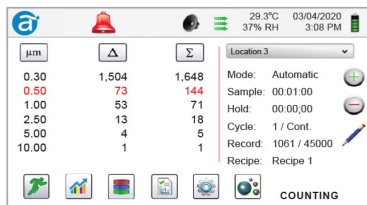
### Features and Benefits

- Stores up to 45,000 sample records, 1,000 sample locations and 50 recipes
- Long life laser diode technology for reliable performance
- Approximates mass concentration in µg/m³ w/ density and refractive index corrections
- User selectable PM sizes from 0.3 µm to 10 µm including TPM of up to 25.0 µm
- Large, intuitive color touch screen display with an easy-to-use icon-driven interface
- Temperature and relative humidity probe included
- Resolve issues quickly from any location with internet-enabled remote diagnostics
- Annotation function allows user to save 32 character notations to a live sample record
- Over 10 hours continuous sampling on a single charge
- Integrated handle for one-handed operation
- Common interface ensures ease of use across all products
- Connect using Ethernet, USB, Wi-Fi (optional), RS 485 or RS232
- Displays user-definable reports for ISO 14644-1, EU GMP Annex 1 and FS 209E
- Built-in visual and audible alarms with comprehensive alarm management
- Complies with ISO 21501-4 and JIS B9921 standards
- Easy to clean and wipe down with minimal particle traps
- Equipped with a standard 1/4"–20 female mount for tripod compatibility
- Lightweight high-impact injection molded plastic enclosure
- 2 year Limited Warranty (Extended and Lifetime warranties available)

# Specifications

| Model | H8306 |
|---|---|
| Size Range | 0.3 to 25 µm |
| Size Channels | Factory calibrated at 0.3, 0.5, 1.0, 2.5, 5.0, 10.0 µm variable binning |
| Flow rate | 0.1 CFM (2.83 LPM) |
| Concentration Limits | 15,000,000 particles/ft³ @ 10% coincidence (per ISO 21501-4)<br>30,000,000 particles/ft³ @ 10% coincidence (as tested and validated[1]) |
| Aerosol Concentration Range | 0.01 to 20,000 µg/m³ |
| Battery Run Time | >10 hours continuous operation |
| Light Source | Long life laser diode |
| Counting Efficiency | 50% @ 0.3 µm; 100% for particles >0.45 µm per JIS |
| Zero Count | <1 count / 60 minutes (<1 particles / 6 ft³). No fault count subtraction. |
| Count Modes | Particles/second, Real-Time Meter, cumulative/differential (count/m³ and count/ft³) and mass concentration (PM) |
| Count Alarms | 1 to 9,999,999 counts |
| Calibration | NIST traceable |
| Display | 4.3″ (10.9 cm) WQVGA (480×272) color touch screen |
| Optional Printer | External thermal printer available |
| Vacuum Source | Internal pump with automatic flow control |
| Filtered Exhaust | Internal HEPA filter |
| Number of Channels | 6 |
| Custom Size Channels | Calibration for custom size channels available |
| Audible Alarm | Adjustable integrated alarm |
| Battery | Removable Li-ion (Recharge time: 4 hours or <2 hours with external battery charger) |
| Exportable Data Reports | ISO 14644-1, EU GMP Annex 1, FS 209E |
| Recipes | 50 user-configurable recipes |
| Communication Modes | Ethernet, USB, RS485, RS232, and (optional) 802.11b/g wireless |
| Environmental Sensor | Includes temperature (32-122°F, ±1°F / 0-50°C, ±0.5°C) and relative humidity probe (15–90% RH, ±2%) |
| Alarm | Integrated alarms for particle counts (any size channel), sensor failure, environmental sensors, and flow rate |
| Standards | ISO 21501-4 and JIS B9921 |
| Calibration | Recommended minimum once per year |
| External Surface | High impact injection molded ABS plastic |
| Dimensions (L x W x H) | 5.12 × 4.25 × 12.26 in (13.0 × 10.8 × 31.1 cm), including handle but excluding probes |
| Weight | 2.2 lb (1.0 kg) |
| Accessories | User manual + Instrument Management Software (IMS) on USB flash drive, isokinetic probe, temperature relative humidity sensor, zero-count filter, battery, USB cable, and power supply |
| Optional Accessories | Printed manual, carrying case, spare battery, external battery charger, external printer, barbed fittings, and tubing |
| Buffer Memory | Securely stores up to 45,000 sample records with particle counts, environmental data, locations, and timestamps |
| Sample Locations | Up to 1,000 locations 20 characters long |
| Sample Time | 1 second to 99 hours |
| Power | 110 to 240 VAC 50/60 Hz universal in-line power supply |
| Operating Conditions | 41-104ºF (5-40ºC) / 20% to 95% non-condensing |
| Storage Conditions | 32-122ºF (0-50ºC) / Up to 98% non-condensing |
| Warranty | 2 year Limited Warranty (Extended and Lifetime warranties available) |

1- Validated by independent analysis see paper available at www.particlesplus.com/aac2022_paper

CE
Made in USA

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