

# 8306 ICS Handheld Airborne Particle Counter 0.1 CFM (2.83 LPM)



The Instant Cleanroom Solutions 8306 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 8306 measures particles from 0.3 to 25  $\mu\text{m}$  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  $\mu\text{g}/\text{m}^3$ , with density and refractive index corrections. Included temperature and relative humidity probes, along with optional CO<sub>2</sub> and TVOC sensors, provide comprehensive environmental monitoring.

With unique features like Particles/Second and the Real-Time Meter, the 8000 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.

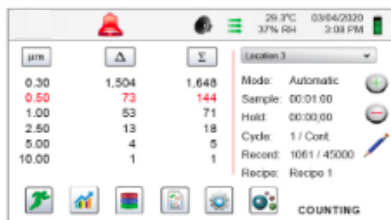
The ICS particle counter standardized hardware and firmware simplify maintenance and reduce the total cost of ownership. Combined with extensive remote diagnostics and a lifetime warranty, the 8306 ensures industry-leading performance and long-term value.

## Features and Benefits

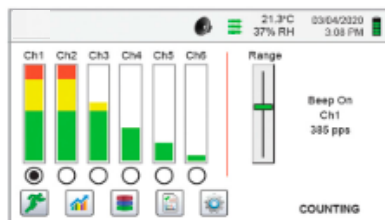
- Stores up to 45,000 sample records, 1,000 sample locations and 50 recipes
- Long life laser diode technology for reliable performance
- Approximates mass concentration in  $\mu\text{g}/\text{m}^3$  with density and refractive index corrections
- User selectable PM sizes from 0.3  $\mu\text{m}$  to 10  $\mu\text{m}$  including TPM of up to 25.0  $\mu\text{m}$
- 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 MODBUS™ TCP over Wired. Optional MODBUS™ TCP over WiFi and optional MODBUS™ RTU or MODBUS™ ASCII over RS-485 or RS-232
- 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

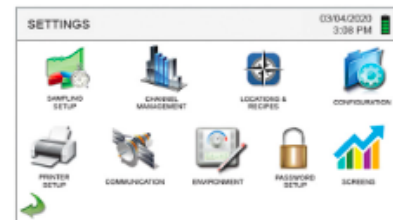
|                             |                                                                                                                                                                                        |
|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Model</b>                | <b>8306</b>                                                                                                                                                                            |
| 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/ft <sup>3</sup> @ 10% coincidence (per ISO 21501-4)<br>30,000,000 particles/ft <sup>3</sup> @ 10% coincidence (as tested and validated <sup>1</sup> )             |
| Aerosol Concentration Range | 0.01 to 20,000 µg/m <sup>3</sup>                                                                                                                                                       |
| 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 ft <sup>3</sup> ). No fault count subtraction.                                                                                                 |
| Count Modes                 | Particles/second, Real-Time Meter, cumulative/differential (count/m <sup>3</sup> and count/ft <sup>3</sup> ) 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         | MODBUS™ TCP over Wired. Optional MODBUS™ TCP over WiFi and optional MODBUS™ RTU or MODBUS™ ASCII over RS-485 or RS-232                                                                 |
| 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 x 4.25 x 12.26 in (13.0 x 10.8 x 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        | 41-104°F (5-40°C) / 20% to 95% non-condensing                                                                                                                                          |
| Storage Conditions          | 32-122°F (0-50°C) / Up to 98% non-condensing                                                                                                                                           |
| Warranty                    | 2 year Limited Warranty (Extended and Lifetime warranties available)                                                                                                                   |



Audible and Visual Alarm Management



Real-Time Meter Pinpoints Particles Sources



Icon Driven Menus for Ease-of-Use

