

# CI-x70 Series NEXTGEN™ Portable Particle Counter

Pharmaceutical / Industrial Grade  
Drop & Vibration Tested



Industry's Smallest and Lightest  
(Only 9.4 Lbs. w/ battery)

Wi-Fi Communications

R/H and Temp Capabilities

Color Capacitive Touch Screen

Pinch to zoom and swipe

User Integrity Audit Trail

New Patented Blower  
Technology

Single Lithium-Ion Battery

PDF Quality Assurance Reports

Built-in Light Ring Alarm

Stores Up To 1 Million Samples

100 User & Location IDs  
(Factory expandable upon  
request)

Pharmaceutical Grade Stainless  
Steel Enclosure

Fully Integrated Thermal Printer

User Authentication with  
5 Security Levels

Compliance: ISO 14644-1/2,  
ISO 21501-4, 21 CFR Part 11



## Serious Instruments for Serious Users

In business for over 55 years, Climet has dozens of multi-jurisdictional patents in field of particle counting. Climet is a pioneer and innovator having been the first to introduce the battery powered portable particle counter (CI-500) in 1993. Since then, Climet has developed virtually every meaningful feature for portable particle counters, many of which today are considered industry standard. This includes but is not limited to high flow rates of 50 LPM, 75 LPM, and 100 LPM. The CI-x70 Series is fully compliant with ISO 21501-4; PIC/S; FDA CGMP; EU GMP, Annex 1; ISO 14644-1/2:2015; 21 CFR Part 11, and others.

## Certified HEPA Filter to ISO Class 3

Each particle counter deployed in the Life Science industry must have a HEPA Filtered Exhaust, or otherwise risk regulatory action (i.e., an observation, finding, etc.) due to rouge particle emissions. Climet is the only manufacturer of particle counters that conducts emissions tests on every new factory model, and certifies emissions to ISO Class 3. This provides an added level of assurance to end-users that their particle counters are not adding to the particle burden of their cleanroom.

## Interval Calibration Out-of-Tolerance

Main contributing factors affecting Total Cost of Ownership (TCO) are product longevity and high interval calibration in-tolerance rates, which mitigate or eliminate expensive deviation reports and investigations. An end-user study of 700+ Climet particle counters that were 7 years old or less passed their interval calibration 99.6% of the time. In a separate study of 2,000+ Climet particle counters, with approximately 25% of these over 10 years old, the in-tolerance calibration rate was 98.3%. Climet, by an order magnitude, uniquely provides our valued customers with the lowest TCO in the industry, by significantly reducing failure investigations (i.e., Six Sigma Cost of Poor Quality or CoPQ)

Rev 2.2 (Mar 2020)

### Applications Include:

Cleanroom Monitoring & Validation  
Medical Device Manufacturing  
Pharmaceutical Manufacturing  
Hospitals

Food & Beverage Processing  
Aerospace Assembly  
Pharmaceutical Compounding  
Medicinal R&D



Channel Sizes	CI-170 Series, CI-570 Series & CI-770 Series CI-1070 Series	0.3 µm, 0.5µm, 1µm, 3µm, 5µm, and 10µm * 0.5 µm, 1µm, 3µm, 5µm, 10µm, and 25µm *
Flow Rate	CI-170 Series @ 1 CFM CI-570 Series @ 50 LPM	CI-770 Series @ 75 LPM CI-1070 Series @ 100 LPM
Size Calibration	< ±10% with internal pulse height analyzer (PHA) in compliance with ISO 21501-4.	
Size Resolution	±4% to ±10% typical. <b>Substantially exceeding ISO 21501-4 of ≤ ±15%.</b>	
Count Efficiency	50% Count Efficiency (a measure of size): ≤ ±10% to Climet standards. <b>Substantially exceeding ISO 21501-4 of ≤ ±20%.</b> 100% Count Efficiency (a measure of flow and laser alignment): < ±10%. In compliance with ISO 21501-4.	
False Count Rate	Equal to or better than ISO 21501-4 specifications.	
Sample Volume Uncertainty	Flow Control and internal mass flow meter ensures compliance with ISO 21501-4 Flow Rate tolerance of ± 5%. <b>Sample Volume is user-adjustable in cubic meters, cubic feet, or liters.</b>	
Exhaust	HEPA filtered exhaust uniquely factory tested to ensure no leaks and certified to ISO Class 3 emissions. <b>Substantially exceeding ISO standards and recommendations.</b>	
Sanitation	Compatible with all standard cleanroom sanitation and sterilization procedures, including Fully Compatible with Vaporized Hydrogen Peroxide (VHP).	
Data Interface	<b>OUTPUT:</b> RS-232, Wired Ethernet, Wi-Fi, and USB <b>INPUT:</b> RH/Temp Port (RH/Temp probe sold separately) ** No charge to factory disable Wi-Fi and USB output ports (please mention on purchase order)	
Laser and Collection Optics	Patented metal ellipsoidal mirror uniquely mitigates the effect of particle shape (morphology) on sizing. No plastic laser or collection optics ensures the industry's highest accuracy and stability of measurement. Contributes to product longevity and lowers Total Cost of Ownership.	
Mirror Plating	Rhodium plated metal ellipsoidal mirror uniquely ensures the highest resistance to impact damage, contamination, and decomposition when compared to chromium, gold, and other metals. Improves product longevity and Total Cost of Ownership (TCO). 100% VHP Compatible.	
Enclosure	Stainless steel enclosure is impact resistant and easily cleaned and sanitized. Mitigates risk of viable contamination, and cross-contamination vs. plastic enclosures. Does not decompose like plastics, which adds to the particle burden of the cleanroom.	
Display	Industry's first color capacitive touch screen similar to cell phone technology. Allows user to pinch-to-zoom and swipe.	
Alarms	Triggers at (i) Counts (User defined "Alert" and "Action" levels), (ii) Laser Status, and (iii) Flow Rate Deviation. Industry's first light ring, providing 360 degree viewability, user-configurable status and alarms (enable/disable, 5-colors, patters, etc.)	
Programmable	By default, five Security Levels, 300 Programs, 300 User ID's plus administrator with password security, 300 location IDs, and more than 1,000,000 samples. All models uniquely come standard with Unit-to-Unit cloning. These setting are factory customizable upon request.	
Printer	Fully integrated thermal printer. No warts or plastic bubbles on the outside exterior that are difficult to clean and sanitize.	
Battery / Electrical	CI-170 Series @ 6 hours CI-570 Series @ 5hours <b>Continuous</b> at 100% duty cycle w/ Zero Count Filter Installed	CI-770 Series @ 3.5 hours CI-1070 Series @ 3.5 hours <b>Recharge Time:</b> 3.5-4 hours w/ Internal charger <b>Wall Power:</b> Universal 100-240 VAC
Dimensions & Weight	8.38" x 7.4" x 9.48" = 587.9 cubic inches. <b>Smallest portable on the market!</b> 9.4 Lbs. with battery & 8.4 Lbs. w/o battery. <b>The lightest industrial / pharmaceutical grade portable particle counter on the market!</b>	
Environmental	Temperature: 0-36°C (32-97°F). Humidity: 10-90% relative humidity, non-condensing	
Included Accessories	Internal thermal printer, internal battery charger, battery, stainless steel or light blocker isokinetic probe, sample tubing, zero count filter, two rolls of thermal paper, cloning cable, IQ/OQ documentation, manual, external exhaust fitting (as appropriate), and USB flash drive.	
Options	Carrying case, probe stand, HEPA filter scanning probe, spare isokinetic probe, spare battery, validation documentation, external battery charger (comes with internal battery charger), and high pressure diffusers (for sampling high pressure gases).	