

NEXTGEN™ PORTABLE PARTICLE COUNTER



CLIMET[®]
INSTRUMENTS COMPANY

Celebrating Over 50 Years In Business!



Rev. 1.0 (May 2016)

CI-x70 Series

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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

Internal studies and customer Total Cost of Ownership (TCO) feedback confirms that on average when a Climet particle counter is equal to or less than 7 years old, the instrument passes its interval calibration 99.6% of the time. In a separate internal study of 2,000+ Climet particle counters, it was confirm an in-tolerance rate of 98.3%, with approximately 25% of the particle counters included in this study up to 10 years old. These statistics are absolutely unparalleled in the industry, and Climet uniquely provides value well beyond the simple use of the instrumentation.



Smallest and Lightest pharmaceutical/Industrial Grade!

- Industrial Grade Design: **1m drop and vibration tested**, and passed calibration!
- Print or PDF reports for ISO 14644:2015, GMP, and FS 209e with sample data filtering (filter sample data by dates, etc.)
- User Integrity Audit Trail
- New Ultra Quiet and Ultra clean blower technology
- DISPLAY: New Color LCD (cellphone-type) touch screen (pinch-to-zoom and swipe-to-scroll)
- Battery: Single Lithium-Ion that **last longer than competitors' dual battery configuration.**
- Sample Data Storage: **Up to a million samples, or more!**
- User IDs: 100 and **factory expandable** upon request!
- Location IDs: 100 and **factory expandable** upon request!
- Programs/Recipes: 100 and **factory expandable** upon request!
- Light Ring: User configurable status and alarms (enable/disable, 5-colors, patterns, etc.)
- HEPA Filter certified to ISO Class 3
- 21 CFR Part 11 Certified
- Flow Rates of 1 CFM, 50 LPM, 75 LPM, or 100 LPM
- Stainless Steel Enclosure
- **Pharmaceutical Grade Stainless Steel** enclosure at **only 9.4 Lbs.** with battery installed!
- Dimensions: 8.38" x 7.4" x 9.48" (**only 587.9 cubic inches!**)
- Fully integrated thermal printer and battery charger!
- Simplified Unit-to-Unit Cloning technology
- Security: 5-Levels with user authentication
- **Network Time Server** synchronization – Another New Innovation in Portable Particle Counters!

** Incorporates patented and new patent pending technology.

Channel Sizes	CI-170 Series, CI-570 Series & CI-770 Series CI-1070 Series	0.3 μm , 0.5 μm , 1 μm , 3 μm , 5 μm , and 10 μm * 0.5 μm , 1 μm , 3 μm , 5 μm , 10 μm , and 25 μm *
Size Calibration	< $\pm 10\%$ with internal pulse height analyzer (PHA) in compliance with ISO 21501-4.	
Size Resolution	$\pm 4\%$ to $\pm 10\%$ typical. Substantially exceeding ISO 21501-4 of $\leq \pm 15\%$.	
Count Efficiency	50% Count Efficiency (a measure of size): $\leq \pm 10\%$ to Climet standards. Substantially exceeding ISO 21501-4 of $\leq \pm 20\%$. 100% Count Efficiency (a measure of flow and laser alignment): < $\pm 10\%$. In compliance with ISO 21501-4.	
False Count Rate	Equal to or better than ISO 21501-4 specifications.	
Flow Rate	CI-170 Series @ 1 CFM CI-570 Series @ 50 LPM	CI-770 Series @ 75 LPM CI-1070 Series @ 100 LPM
Sample Volume Uncertainty	Flow Control and internal mass flow meter ensures compliance with ISO 21501-4 Flow Rate tolerance of $\pm 5\%$. Sample Volume is user-adjustable in cubic meters, cubic feet, or liters.	
Exhaust	HEPA filtered exhaust uniquely factory tested to ensure no leaks and certified to ISO Class 3 emissions. Substantially exceeding ISO standards and recommendations.	
Sanitation	Compatible with all standard cleanroom sanitation and sterilization procedures, including Vaporized Hydrogen Peroxide (VHP).	
Data Interface	RS-232, Ethernet, and USB.	
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 damage, contamination, and decomposition when compared to chromium, gold, and other metals. Also, improves product longevity and Total Cost of Ownership (TCO).	
Enclosure	Stainless steel enclosure is impact resistant and easily cleaned and sanitized. Mitigates risk of biological contamination, and cross-contamination vs. plastic enclosures. Does not decompose like plastics, which adds to the particle burden of the cleanroom.	
Display	Large touchscreen display and large lettering. Easy to use interface. VERY quick response between screens—No frustrating delays.	
Alarms	Triggers at (i) Counts (User defined "Alert" and "Action" levels), (ii) Laser Status, and (iii) Flow Rate Deviation. 360 degree, user-configurable status and alarms (enable/disable, 5-colors, patterns, etc.)	
Programmable	Five Security Levels, 100 Programs, 100 User ID's plus administrator with password security, 100 location IDs, and up to 10,000,000 samples. All models uniquely come standard with Unit-to-Unit cloning.	
Printer	Fully integrated thermal printer. No warts or plastic bubbles on the outside exterior that are difficult to sanitize.	
Battery / Electrical	CI-170 Series @ 6 hours CI-570 Series @ 5 hours Continuous at 100% duty cycle w/ Zero Count Filter Installed	CI-770 Series @ 3.5 hours CI-1070 Series @ 3.0 hours Recharge Time: 3.5-4 hours w/ Internal charger Wall Power: Universal 100-240 VAC
Dimensions & Weight	8.38" x 7.4" x 9.48" = 587.9 cubic inches. Smallest portable on the market! 9.6 Lbs. with battery. The lightest industrial / pharmaceutical grade portable on the market!	
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, IQ/OQ documentation, manual, external exhaust fitting, and USB flash drive.	
Options	Carrying case, probe stand, 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).	