



QUALITY IS IN OUR DNA

CLIMET®
INSTRUMENTS COMPANY

Celebrating Over 50 Years In Business!



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BETATEK INC.
Instrumentation Superbly Supported
L'instrumentation à son meilleur

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CI-3100 RS

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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-3100 RS 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

Climet only uses high quality laser collection optics and a rhodium-plated metal ellipsoidal mirror that uniquely provide immunity to calibration drift and minimize the effect of particle shape (morphology) on sizing! Our rhodium-plated mirror resists contamination, decomposition, and corrosion, providing users an extended product life.

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 being 10 more 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!

- **Compliant with all standards** including, but not limited to ISO 14644-1/2, ISO 21501-4, 21 CFR Part 11, EU GMP Annex 1, and others.
- Easy configuration for use in continuous monitoring.
- **Flexible Data Interface Options:** RS-485 Modbus or 4-20 MA, depending on model.
- **Laser Diode** is an optimal mix of long life, stability, and high resolution providing the greatest assurance. A stable laser diode is important as jitter causes false high counts. The laser must also provide a narrow response to particles in order to provide excellent size resolution. The unique and patented design of Climet's collection optics, laser sensor module, and laser diode selection provide unsurpassed accuracy.
- Rhodium Plated Metal Ellipsoidal Mirror—offers the highest resistance to decomposition, corrosion, and contamination while providing superior signal-to-noise performance over other designs.
- Rugged, durable, and built to last—all Climet products are proudly manufactured in the United States of America.

** Incorporates patented or patent pending technology.

Performance	<p>Flow Rate Control: Critical orifice.</p> <p>External Vacuum: 15" Hg minimum.</p> <p>Particle Channel Sizes: 2 channels 0.5/5 μm (<i>please contact us for other size requirements</i>).</p> <p>Concentration Limit:</p> <ul style="list-style-type: none"> 1.0 CFM: 1.0×10^6 particles per cubic foot (35.3×10^6 particles per cubic meter) (10% coincidence). 0.1 CFM: 10.0×10^6 particles per cubic foot (353×10^6 particles per cubic meter) (10% coincidence). <p>Resolution: Exceeds requirements of ISO 21501-4 of 15% (10% typical).</p> <p>Count Efficiency: 50% Count Efficiency exceeds ISO 21501-4 of $\pm 20\%$ ($\leq \pm 10\%$ typical).</p> <p>100% Count Efficiency @ $\pm 10\%$ per ISO 21501-4</p> <p>Max. False Count: 1.00 CFM: 7.1 / CM (95% UCL) per ISO 21501-4 0.10 CFM: 71 / CM (95% UCL) per ISO 21501-4</p> <p>Optics: Rhodium plated metal ellipsoidal mirror (extreme durability and resistant to degradation)</p> <p>Laser Diode: Optimal balance of long life, stability, and resolution for added accuracy.</p> <p>Cleaning: Compatible with common cleaning and sterilization procedures, including VHP.</p> <p>Electrical: Power and signal through DIN connector.</p>
Accessories Included	Product manual
Other Accessories Available	Mounting brackets, stainless steel isokinetic probes, light blocking isokinetic probes, tubing, probe stands, validation documentation, customized cabling, zero count filters, and other accessories sold separately.
LED Status Indicators	Power, Count, Laser Status, and Flow Status (Alarm LED only on 4-20 mA models)
Environmental	<p>Operating temperature: 0-36° C, 32-97° F Dimensions: 4.5" (W) x 4"(H) x 2"(D) (11.4 cm x 10.2 cm x 5.1 cm) 0-90% relative humidity, non-condensing 4.0" (W) on RS-485 version</p>
Compliance	ISO 21501-4; ISO 14644-1; EU GMP, Annex 1; FS-209E; JIS 9921; and FDA 21 CFR Part 11 with software

CI-3100 - _____ - **1** - _____ - _____

Data Comm **Size Sensitivity** **Flow Rate**

DATA COMMUNICATION OPTIONS

- 3* = 4-20 mA with Flow Status, open collector output, no analog flow output
 4 = 4-20 mA with Flow Status, analog flow voltage output, no open collector output
 6* = RS-485 Modbus with Flow Status

FLOW RATE OPTIONS

- 6 = 0.10 CFM
 8* = 1.00 CFM
 9 = 0.01 CFM

* = most popular versions.

SIZE SENSITIVITY OPTIONS

- 5* = 0.5 / 5.0 μm
 6 = 0.3 / 0.5 μm

- Recommended calibration frequency, every 12 months with monodisperse polystyrene spheres traceable to NIST.



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