

COMMITMENT TO QUALITY



CLIMET[®]
INSTRUMENTS COMPANY

Celebrating Over 50 Years In Business!



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

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CI-3100 OPT 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-3100 OPT 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.

Maximize ROI

Not all particle counters are equal. The initial purchase price, mitigation of deviation reports and failure investigations, cost of calibrations, cost of consumables, out of warranty repairs, and product life-cycle all factor into calculating the Return on Investment. Other intrinsic factors include assurance, reliability, accuracy, application support, and superior customer service. These make Climet the unsurpassed leader in the manufacture of particle counters.

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.



Pharmaceutical & Industrial Grade!

- **Compliant with all standards** including, but not limited to ISO 14644-1/2, ISO 21501-4, 21 CFR Part 11 Compliant Software, EU GMP Annex 1, and others.
- Automatic Flow Control
- **Optics:** Rhodium plated metal ellipsoidal mirror provides resistance to decomposition and optimal signal-to-noise ratio, providing users unparalleled accuracy and reliability.
- **Choice of Data Interface Options:** Ethernet Modbus, 4-20ma. Or RS-485 Modbus. Varies by 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.
- The **quietest and most energy efficient** vacuum pump.
- Rugged, durable, and built to last—all Climet products are **proudly manufactured in the United States of America**.

** Incorporates patented or patent pending technology.

CI-3100 OPT Series Specifications

Performance	<p>Flow Rate Control: Electronic, automatic closed loop</p> <p>Particle Channel Sizes: 2 channels 0.5/5 μm (<i>please contact us for other size requirements</i>)</p> <p>Concentration Limit: 0.1 CFM: 10.0 x 10⁶ particles per cubic foot (353 x 10⁶ particles per cubic meter) @ 10% coincidence 1.0 CFM: 1.0 x 10⁶ particles per cubic foot (35.3 x 10⁶ particles per cubic meter) @ 10% coincidence</p> <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) 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>Vacuum Source: Power efficient internal vacuum source (OPT models only)</p>
Accessories Included	Zero count filter, product manual, and external exhaust fitting (on select models)
Other Available Accessories	Stainless steel isokinetic probes, tubing, light blocking isokinetic probes, probe stands, high pressure diffusers, alarm tower, software, validation documentation, customized cabling and other accessories sold separately.
LED Status Indicators	Power, Alarm, Count, Laser Status, and Flow Status
Environmental	<p>Operating temperature: 0-36° C, 32-97° F</p> <p>Dimensions: 6" (W) x 4" (H) x 11.5" (D) (15.24 cm x 10.16 cm x 29.21 cm)</p> <p>0-90% relative humidity, non-condensing</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 - _____ - _____ - _____ - _____ - OPT

INTERFACE OPTIONS

- 12* = 4-20 mA Signal Output Stainless Steel Case
- 14* = RS-232 Device Net Interface
- 21* = Ethernet Modbus w/ Built-in Webpages Viewed via Web Browser
Option for Wireless available
- 22* = RS-485 Modbus

VOLTAGE OPTIONS

- 0 = External Power, 24 VDC
- 1 = 115 VAC USA
- 2 = 230 VAC EURO
- 3 = 230 VAC UK
- 8 = 230 VAC EURO, Remote power option and flow rate output

SIZE SENSITIVITY OPTIONS

- 4* = 0.5 / 5.0 μm
- 6 = 0.3 / 0.5 μm

FLOW RATE OPTIONS

- 2 = 0.10 CFM
- 4* = 1.00 CFM
- 6* = 1.00 CFM with External Exhaust
- 7 = 0.10 CFM with External Exhaust

* = most popular versions.

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

We value the opportunity to work with you. For further technical information and questions, please contact us.



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