

# CI-90A Microbial Sampler

## Climet Calibration and Support Services

When Accuracy Matters!™



Design Provides Optimal Impaction Velocity To Ensure Superior Biological and Physical Collection Efficiencies:

ISO 14698-1 Validated

Superior Performance down to 1µm per ISO 14698-1 standard

Validated Flow Rate and Audible Flow Rate Alarm

HEPA Filtered Exhaust

Stainless Steel Enclosure

VHP Compatible

Internal Label Printer

Sample a Cubic Meter in 10 Minutes

Optional Remote Sampling for Isolators and Biosafety Cabinets, and Sampling of High Pressure Gases

USP <797>

ISO 14698 and ISO 14644

EU GMP Annex 1



The **CI-90A** uses the highly effective and time proven active impaction method. This collects air through a perforated head, and microorganisms are impacted onto a standard 90mm petri dish placed under the sample head. Samples can be easily controlled, collected, and cultured.

In accordance with ISO 14698-1, the enclosure is **polished stainless steel** providing the highest resistance to particle or microbial attachment, and thus mitigating the risk of biocontamination. Also, the **sample head is fully autoclavable**, and the CI-90A is completely compatible with common cleaning procedures, including VHP. The internal exhaust incorporates a **HEPA filter** to prevent the introduction of particles or biocontamination. The CI-90A has **Automatic Flow Control** technology that regulates impaction velocity during all operating conditions, which ensures sample consistency, accuracy, and that tolerances are within calibration. An **audible flow alarm** provides additional assurance of a valid sample, and mitigates expensive deviation reports. The CI-90A has an **internal thermal label printer** that provides traceability.

### Reliability, Accuracy & Support

The **CI-90A** microbial samplers are engineered and manufactured with only the highest quality materials. This ensures a long product life-cycle, and up to decades of reliable use. Moreover, Climet provides calibration support services for all our devices over their lifetime.

### Return On Investment

Deviation reports and investigations among biopharma manufacturing sites cost between \$5,000 to \$12,000 per incident; and well exceeds the initial purchase price of the instrument. Climet's pharmaceutical grade design virtually eliminates interval calibration out-of-tolerance conditions (<1%), and by a large margin provides the industry's highest return on investment.

#### Applications Include:

Cleanroom Monitoring & Validation  
Medical Device Manufacturing  
Pharmaceutical Manufacturing  
Hospitals

Food & Beverage Processing  
Aerospace Assembly  
Pharmaceutical Compounding  
Cosmetic Manufacturing

**CLIMET**<sup>®</sup>  
**INSTRUMENTS COMPANY**

Configurations	<p>950090A-00x = <b>100 LPM microbial sampler with Aluminum Sampling Head</b>  950090A-10x = <b>100 LPM microbial sampler with locking collar and passivated 316L Stainless Steel Sampling Head</b></p> <p><b>x (Power Supply): 1 = United States; 2 = Euro; 3 = United Kingdom</b></p> <p>* All models have 304 Stainless Steel Enclosure, RS-232 data interface, and HEPA filtered internal exhaust. Both sampling heads are autoclavable @ 134°C for 20 minutes.</p>
Performance	<p><b>Sample Flow Rate:</b> 100 LPM (0.1 cubic meter per minute, or 3.53 cubic feet per minute)  <b>Sample time to measure a cubic meter :</b> 10 minutes  <b>Flow Rate Control:</b> Electronic, automatic closed loop  <b>Cleaning:</b> Compatible with common cleaning and sterilization procedures, including VHP.  <b>Flow Rate Audible Alarm:</b> Internal audible alarm, +/-10% of 100 LPM Flow Rate  <b>Data Interface:</b> RS-232 for use with IDLoader Software  <b>Display:</b> 4x20 character LCD  <b>Printer:</b> Thermal Label Printer for traceability (Location ID, User ID, time, date, etc.)</p>
Programming & Memory	<p><b>Unit ID:</b> User Selectable; 6 characters long  <b>User ID:</b> Up to 10 users, 9 characters long.  <b>Location ID:</b> Up to 100; 15 characters.  <b>Security:</b> Prevents changes to settings, or stopping a sample in progress.</p>
Included Accessories and Features	<p>Internal thermal label printer, internal battery charger, battery, stainless steel locking collar, sample head, two rolls of adhesive labels, IQ/OQ Procedures, manual, and IDLoader Software included.  High pressure diffusers, remote sample heads, tubing, validation documentation, and other accessories sold separately.</p>
Electrical AC and battery supported	<p>Battery: 9.6 VDC, 7.6 Amp Hours  Battery Operation (typical) : 7 hours with continuous sampling  Battery Recharge time: 2.0-2.5 hours (<b>built-in charger</b>)  Wall Power: Universal 100-240 VAC Input</p>
Dimensions & Weight	<p>7.5"(H) x 8.1" (W) x 9.9" (L) ( 19.05 cm x 20.574 cm x 25.146 cm )  CI-90A with aluminum sample head, weight with battery is 10.5 lbs. (4.76 Kg)  CI-90A with stainless steel sample head, weight with battery is 12 lbs. (5.44Kg)</p>
Environmental	<p>Operating temperature: 0-36°C, 32-97°F  0-90% relative humidity, non-condensing</p>

- Biological and Physical Efficiency validated to ISO 14698-1, with unparalleled performance down to 1µm. Biological and Physical Efficiency test report available to customers upon request.
- Recommended calibration frequency, every 12 months for flow system accuracy.

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

**Climet Instruments Company**

1320 West Colton Ave  
Redlands, CA 92374 (USA)  
Tel: +1 (909) 793-2788

[www.climet.com](http://www.climet.com) | [sales@climet.com](mailto:sales@climet.com)

