

# CI-3100 Trident Series Airborne Particle Counters 1 CFM Flow Rate 2 - Channels When Accuracy Matters!™



Continuous Monitoring in Critical Areas

High Accuracy & Unsurpassed Repeatability of Measurement

10,080 Sample Memory Buffer

VHP Compatible

PoE+, Wi-Fi, or A/C Available

HEPA Filtered Exhaust

Seamless Stainless Steel Enclosure

Remotely Controlled and a Rear Panel ON/OFF Button

User Enabled/Disabled Light Ring

Rear Output Contacts for a dedicated Light Tower

Optional RH/Temp Probe

New Proprietary Diagnostics Mitigate Deviation Reports and Failure Investigations.

Compatible with LIMS and other FMS Software Packages

ISO 21501-4  
ISO 14644-1/2  
EU GMP, Annex 1  
21 CFR Part 11

## Innovation

The Trident series of particle counters provides a Sample Data

Memory Buffer, an optional RH and Temp probe, and is the industry's first to provide Power-over-Ethernet (PoE+) in a particle counter with an integrated vacuum pump. Additional new features include: Wi-Fi, AC power, ON/OFF button, Light Ring for visual alerts, output contacts for a Light Tower, and more. Some new features are patent pending.

## Reliability, Accuracy & Support

The **CI-3100 Trident Series** of particle counters 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, we provide calibration support services for all our devices over their lifetime. Our reputation, and where we really excel, is providing highly accurate particle counts over time. Climet internal audits confirm that units returned for calibration have an "In Tolerance" rate of more than 98%. This includes some units that have been manufactured over a decade ago. Simply, Climet particle counters are designed, tested, and calibrated with very tight tolerances to exceed industry standards. Over a decade of count efficiency testing has demonstrated that a properly calibrated Climet particle counter produces good count efficiency, even after more than a decade of field operation!

## Lowest Total Cost of Ownership

Not all particle counters are equal. The initial purchase price, cost of calibrations, cost of consumables, out of warranty repairs, and product life-cycle all factor into calculating the Total Cost of Ownership (TCO). 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 for cleanroom monitoring, validation, and certification.

## Custom Engineered Solutions

If you have a specific technical requirement, please contact us. We specialize in customizing our products to fit your needs.

### 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

# CI-3100 Trident Series Specifications

Performance	<p>Flow Rate Control: <b>Electronic, automatic closed loop</b></p> <p>Particle Channel Sizes: <b>0.5 and 5.0 microns on 2-channels (please contact us for other size requirements and custom configurations)</b></p> <p>Concentration Limit: <b>1.0 X 106 Particles/FT3 (35.3 X 106 Particles/M3)</b></p> <p>Resolution: <b>Exceeds requirements of ISO 21501-4 of 15% (4-10% typical)</b></p> <p>Count Efficiency: <b>50% Count Efficiency exceeds ISO 21501-4 of ±10% @ 0.5µm</b>  <b>100% Count Efficiency @ ±10% @ 0.8µm per ISO 21501-4</b></p> <p>Max. False Count: <b>1.00 CFM: 7.1 / CM (95% UCL) per ISO 21501-4</b>  <b>0.10 CFM: 71 / CM (95% UCL) per ISO 21501-4</b></p> <p>Optics: <b>Rhodium plated metal elliptical mirror (extreme durability and resistant to contamination)</b></p> <p>Laser Diode: <b>Optimal balance of long life, stability and resolution for added accuracy.</b></p> <p>Cleaning: <b>Compatible with common cleaning and sterilization procedures, including VHP</b></p> <p>Vacuum Source: <b>Power efficient internal vacuum source</b></p> <p>RH/Temp output: <b>6-pin connector (Compatible with Climet RH/Temp probe)</b></p> <p>Memory: <b>10,080 Samples (7 days of storage), date and time stamped</b></p>
Accessories Included	Zero count filter, IQ/OQ Docs, manual, and external exhaust fitting
Other Available Accessories	Stainless steel isokinetic probes, tubing, probe stands, high pressure diffusers, software, validation documentation, customized cabling, power injector, RH/Temp probe, alarm tower and other accessories sold separately.
LED Status Indicators	LED Power, Sample, Alarm, Count, Laser Status, Flow Status, Network FTP, Network Time, Service Required, and Network Link
Environmental	<p><b>Operating temperature:</b> 32—100° F, 0—37.8° C</p> <p><b>Dimensions:</b> 6.125" (W) x 4" (H) x 11.125" (D) (15.558 cm x 10.16 cm x 28.258 cm)</p> <p>0-100% 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 Trident -

Interface

Voltage

Size Sensitivity

Flow Rate

### INTERFACE OPTIONS

24 = AC Power with Ethernet Networking

25 = Power over Ethernet (PoE+)

26 = Wi-Fi & AC Power

### VOLTAGE OPTIONS

0 = POE

1 = 115 VAC USA

2 = 230 VAC EURO

3 = 230 VAC UK

### SIZE SENSITIVITY OPTIONS

2\* = 0.5 / 5.0 µm (Compatible with Vaisala RH/Temp Probe)

### FLOW RATE OPTIONS

6\* = 1.00 CFM with HEPA Filtered

External Exhaust

\* = most popular versions.

**Custom Configurations Upon Request**

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.

## Climet Instruments Company

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