

CI-3100 RS Series Remote Sensor Airborne Particle Counters Up To 1 CFM Flow Rate When Accuracy Matters!™



For Continuous Monitoring and Systems Integration

High Accuracy & Assurance

Stainless Steel Enclosure

VHP Compatible

Easy To Install, Operate and Validate

Remotely Controlled and Monitored

Internal Flow Rate Sensor

Multiple Status Indicators

Connects to existing network infrastructure and a variety of data logging or standard environmental monitoring systems including LIMS Software.

ISO 21501-4

ISO 14644-1

EU GMP, Annex 1

FS-209E

JIS 9921

Unsurpassed ease of use and reliability. The **CI-3100 RS Series** is designed for continuous monitoring and offers users standard data interface options, including RS-485 Modbus and 4-20 mA outputs.

Reliability, Accuracy & Support

The **CI-3100 Series** of particle counters are engineered with only the highest quality materials. Using proprietary manufacturing processes, Climet ensures a long product life cycle and more than a decade of reliable use. We have built our reputation by providing highly accurate instruments that stand the test of time. Climet internal audits confirm that units returned for calibration have an average **“In Tolerance” rate of more than 99.5%** when ten (10) years old or less, substantially mitigating expensive deviation reports and investigations. Climet particle counters are designed, tested, and calibrated with very tight tolerances to exceed industry standards. Years of count efficiency testing have demonstrated that a properly calibrated Climet particle counter produces good count efficiency even after more than a decade of field operation!

Return On Investment

Not all particle counters are equal. The initial purchase price, cost of calibrations, out-of-warranty repairs, and product life cycle are all factors used to calculate the Return on Investment. However, what really drives ROI is the mitigation of deviation reports and investigations associated with internal calibration out-of-tolerance conditions. All these factors 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[®]
CLIMET INSTRUMENTS COMPANY

CI-3100 RS Series Specifications



Criteria	Comments
Channel Sizes:	0.3, 0.5, or 5.0 microns on 2-channels. Default is 0.5 and 5.0 microns.
External Vacuum	15" Hg minimum
Flow Rate Control	Critical orifice
Count Efficiency	50% Count Efficiency exceeds ISO 21501-4 of $\pm 20\%$ (Exceeds standard at $< \pm 10\%$ typical) 100% Count Efficiency @ $\pm 10\%$ per ISO 21501-4
Resolution	Exceeds requirements of ISO 21501-4 of 15% (4-10% typical)
Concentration Limit:	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).
Accessories Included	IQ/OQ Procedures and manual
Other Accessories Available	Mounting brackets, stainless steel or light-blocking isokinetic probes, tubing, probe stands, validation documentation, customized cabling, zero count filters, and other accessories are sold separately.
LED Status Indicators	Power, Count, Laser Status, and Flow Status (Alarm LED only on 4-20 mA models)
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
Optics	Wide scatter ellipsoidal laser collection optics provide the highest accuracy and precision of measurement. The rhodium-plated metal ellipsoidal mirror is resistant to contamination, corrosion, decomposition, and impact damage/wear. Inert to VHP. Significantly extends product life cycle.
VHP Compatibility & Sanitation	Compatible with common cleaning and sterilization procedures, including VHP. No reduction in warranty or voiding of electronics damage due to exposure to non-condensing VHP. In regulated industries, Climet recommends exposure to VHP every 3-6 months.
Quality Assurance	According to ISO 21501-4, particle counters must be calibrated at least every 12 months. Studies confirm Climet products, on average, pass their interval calibration 99.5% when the instrument is ten (10) years old or less. In regulated industries, this extremely low out-of-tolerance rate (0.5%) provides users with significant cost savings due to the mitigation of expensive deviation reports and failure investigations.
Electrical	Power (24 VDC), ground, and signal through DIN connector
Environmental	Operating temperature: 0-36° C, 32-97° F 0-90% relative humidity, non-condensing
Dimensions	12.1 cm (W) x 10.2 cm (H) x 5.1 cm (D) (Note) 11.4 cm (W) on RS-485 version
Compliance	ISO 21501-4; ISO 14644-1/2; EU GMP, Annex 1; FS-209E; JIS 9921; and FDA 21 CFR Part 11 with software

Call or write to
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www.teknology1.com



Part Number Configuration



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

- Per ISO 21501-4, recommended calibration frequency is every 12 months with monodisperse polystyrene spheres traceable to NIST.
- For Ethernet, please see the CI-3100 TRIDENT RS model.

STANDARD MODELS	
3100-1158	RS-485 No flow status, 0.5/5.0 µm, 1 CFM
3100-3158*	4-20 mA with Flow Status, open collector output, no analog flow output, 0.5/5.0 µm, 1 CFM
3100-4158	4-20 mA with Flow Status, analog flow voltage output, no open collector output, 0.5/5.0 µm, 1 CFM
3100-6158*	RS-485 Modbus with Flow Status, 0.5/5.0 µm, 1 CFM
* = most popular versions	
3100-3166	4-20 mA with Flow Status, open collector output, no analog flow output, 0.3/0.5 µm, 0.1 CFM
3100-3156	4-20 mA with Flow Status, open collector output, no analog flow output, 0.5/5.0 µm, 0.1 CFM
3100-4156	4-20 mA with Flow Status, analog flow voltage output, no open collector output, 0.5/5.0 µm, 0.1 CFM
Can't find what you're looking for? Call us at 909-793-2788 or email sales@climet.com	

Non-standard models may be subject to minimum order quantities, NREs, or may be unavailable.



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

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