

CI-x5x Series Portable Particle Counter





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CI-150 Series Airborne Particle Counters 1 CFM Flow Rate 4-Channels When Accuracy Matters!™



High Accuracy High Reliability HEPA Filtered Exhaust Internal Data Storage Audible Alarm: Built-in, Adjustable & Programmable Touchscreen Display Internal Thermal Printer Internal Battery Charger Smallest Footprint Clone Settings Unit-to-Unit

Connects to existing network infrastructure and LIMS Software.

ISO 21501-4 ISO 14644-1 EU GMP, Annex 1 FS-209E JIS 9921 21 CFR Part 11

Applications Include:

Cleanroom Monitoring & Validation Medical Device Manufacturing Pharmaceutical Manufacturing Semiconductor & Disk Drive Mfg. Research & Development Unsurpassed ease of use and reliability. Seamless stainless steel enclosure simplifies cleaning and sanitation. Lightweight and the industry's smallest 1.0 CFM footprint allows the device to be easily transported.

Reliability, Accuracy & Support

The **CI-150 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. 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 "In Tolerance" rate of more than 98%. This study includes some units that have been manufactured more than 20 years ago. Simply, Climet particle counters are designed, tested, and calibrated with very tight tolerances to exceed industry standards. Years 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!

Return On Investment

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 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 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.

Food & Beverage Processing Aerospace Assembly Hospitals Cosmetic Manufacturing



CI-150 Series Specifications

Configurations	CI-150t = 1 CFM particle counter w/ RS-232 data transfer with HEPA filtered internal exhaust
	CI-152x = 1 CFM particle counter w/ RS-232 data transfer *
	CI-153 = 1 CFM particle counter w/ RS-232, Ethernet (http webserver, Modbus and TELNET) *
	CI-154 = 1 CFM particle counter w/ RS-232, Ethernet and USB data transfer *
	CI-155 = 1 CFM particle counter w/ RS-232, Wi-Fi Ethernet (http webserver, Modbus and TELNET) *
	CI-156 = 1 CFM particle counter w/ RS-232, Wi-Fi Ethernet and USB data transfer *
	* All models have HEPA filtered external exhaust except for the CI-150t model.
Performance	Sample Flow Rate: 1 CFM (0.028 cubic meter per minute, or 28.3 liters per minute)
	Sample Volume: Adjustable in cubic feet, cubic meters, or in liters
	Sample time to measure a cubic meter: 35.3 minutes
	Flow Rate Control: Yes. Electronic, automatic closed loop
	HEPA Filtered Exhaust: Yes, all models certified to ISO Class 3.
	Standard Particle Channel Sizes: 0.3, 0.5, 1.0, 5.0 microns (other sizes upon request)
	Concentration Limit: 1 x 10 ⁶ particles per cubic foot (35.3 x 10 ⁶ particles per cubic meter) (10% coincidence)
	Resolution: Exceeds requirements of ISO 21501-4 of 15% (4-10% typical)
	Count Efficiency: 50% Count Efficiency exceeds ISO 21501-4 of ±20% (<±10% typical)
	100% Count Efficiency @ ±10% per ISO 21501-4
	Max. False Count: 7.1 / CM \ge 0.3 µm (95% UCL) per ISO 21501-4
	Optics: Rhodium plated metal ellipsoidal mirror (extreme durability and resistant to contamination)
	Laser Diode: Optimal balance of long life, stability and resolution for improved accuracy.
	Cleaning: Compatible with common cleaning and sterilization procedures, including VHP.
Programming & Memory	Program: Up to 30 user-defined and named programs; containing IDs and settings
,	Memory: 3000 samples: Date, Time, 4 Particle Channels, Flow, ID, Sample Volume
	Unit ID: User Selectable
	User ID: Up to 20 users, plus supervisor, with password security
	Security: Four security levels, with user authentication
	Location ID: Up to 100 per program; 16 characters.
	Cloning: All models support Unit-to-Unit, and PC-to-Unit. Cloning via USB flash drive on CI-154 model.
Included Accessories and	All models come with an internal thermal printer, internal battery charger, battery, stainless steel isokinetic
Features	probe with 10 feet of tubing, zero count filter, two rolls of paper, cloning cable, IQ/OQ Docs, manual, and exter-
	nal exhaust fitting on appropriate models. Flash drive with USB models.
Electrical	Battery: 9.6 VDC, 12.6 Amp Hour
	Battery Operation: 6 hours (typical) with continuous sampling
	Battery Recharge time: 3.5 - 4 hours (<i>built-in charger</i>)
	Wall Power: Universal 100-240 VAC Input
Dimensions	8.65"(H) x 8.5" (W) x 9.5" (L) (21.97 cm x 21.6 cm x 24.1 cm)
	11.0 lb. (4.99Kg) without battery; and 14.25 lb. (6.46 Kg) with battery
Environmental	Operating temperature: 0-36° C, 32-97° F
Environmental	Operating temperature: 0-36° C, 32-97° F 0-90% relative humidity, non-condensing

• Light blocking isokinetic probes, probe stands, high pressure diffusers, carrying cases, software, validation documentation, and other accessories sold separately.

• 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.



654 Petrolia Road, Toronto, ON M3J 2W3

CI-450 Series Airborne Particle Counters 50 LPM Flow Rate 4-Channels When Accuracy Matters!™



High Accuracy High Reliability HEPA Filtered Exhaust Internal Data Storage Audible Alarm: Built-in, Adjustable & Programmable Touchscreen Display Internal Thermal Printer Internal Battery Charger Smallest Footprint Clone Settings Unit-to-Unit

Connects to existing network infrastructure and LIMS Software.

ISO 21501-4 ISO 14644-1 EU GMP, Annex 1 FS-209E JIS 9921 21 CFR Part 11

Applications Include:

Cleanroom Monitoring & Validation Medical Device Manufacturing Pharmaceutical Manufacturing Hospitals Semiconductor & Disk Drive mfg. Unsurpassed ease of use and reliability. Seamless stainless steel enclosure simplifies cleaning and sanitation. Lightweight and the industry's smallest 50 LPM footprint allows the device to be easily transported.

Reliability, Accuracy & Support

The **CI-450 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. 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 "In Tolerance" rate of more than 98%. This study includes some units that have been manufactured more than 20 years ago. Simply, Climet particle counters are designed, tested, and calibrated with very tight tolerances to exceed industry standards. Years 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!

Return On Investment

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 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 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.

Food & Beverage Processing Aerospace Assembly Research & Development Cosmetic Manufacturing



CI-450 Series Specifications

Configurations	CI-450t = 50 LPM particle counter w/ RS-232 data transfer with HEPA filtered internal exhaust
	CI-452x = 50 LPM particle counter w/ RS-232 data transfer *
	CI-453 = 50 LPM particle counter w/ RS-232, Ethernet (http webserver, Modbus and TELNET) *
	CI-454 = 50 LPM particle counter w/ RS-232, Ethernet and USB data transfer *
	CI-455 = 50 LPM particle counter w/ RS-232, Wi-Fi Ethernet (http webserver, Modbus and TELNET) *
	CI-456 = 50 LPM particle counter w/ RS-232, Wi-Fi Ethernet and USB data transfer *
	* All models have HEPA filtered external exhaust except for the CI-450t model.
Performance	Sample Flow Rate: 50 LPM (0.05 cubic meter per minute, or 1.77 cubic feet per minute)
	Sample Volume: Adjustable in cubic feet, cubic meters, or in liters
	Sample time to measure a cubic meter : 20 minutes
	Flow Rate Control: Yes. Electronic, automatic closed loop
	HEPA Filtered Exhaust: Yes, all models certified to ISO Class 3.
	Standard Particle Channel Sizes: 0.3, 0.5, 1.0, 5.0 microns (Other sizes upon request)
	Concentration Limit: 20,000 particles per liter (20 x 10 ⁶ particles per cubic meter) (10% coincidence)
	Resolution: Exceeds requirements of ISO 21501-4 of 15% (4-10% typical)
	Count Efficiency: 50% Count Efficiency exceeds ISO 21501-4 of ±20% (<±10% typical)
	100% Count Efficiency @ ±10% per ISO 21501-4
	Max. False Count: 4.0 / CM \ge 0.3 μ m (95% UCL) per ISO 21501-4
	Optics: Rhodium plated metal ellipsoidal mirror (extreme durability and resistant to contamination)
	Laser Diode: Optimal balance of long life, stability and resolution for improved accuracy.
	Cleaning: Compatible with common cleaning and sterilization procedures, including VHP.
Programming & Memory	Program: Up to 30 user-defined and named programs; containing IDs and settings
	Memory: 3000 samples: Date, Time, 4 Particle Channels, Flow, ID, Sample Volume
	Unit ID: User Selectable
	User ID: Up to 20 users, plus supervisor, with password security
	Security: Four security levels, with user authentication
	Location ID: Up to 100 per program; 16 characters.
	Cloning: All models support Unit-to-Unit, and PC-to-Unit. Cloning via USB flash drive on CI-454 model.
Included Accessories	All models come with an internal thermal printer, internal battery charger, battery, stainless steel isokinetic
and Features	probe with 10 feet of tubing, zero count filter, two rolls of paper, cloning cable, IQ/OQ Docs, manual, and exter-
	nal exhaust fitting on appropriate models. Flash drive with USB models.
Electrical	Battery: 9.6 VDC, 12.6 Amp Hour
	Battery Operation: 5 hours (typical) with continuous sampling
	Battery Recharge time: 3.5 - 4 hours (built-in charger)
	Wall Power: Universal 100-240 VAC Input
Dimensions	8.65"(H) x 8.5" (W) x 9.5" (L) (21.97 cm x 21.6 cm x 24.1 cm)
	11.0 lb. (4.99Kg) without battery; and 14.25 lb. (6.46 Kg) with battery
Environmental	Operating temperature: 0-36° C, 32-97° F
	0-90% relative humidity, non-condensing
 Light blocking isoki 	netic probes, probe stands, high pressure diffusers, carrying cases, software, validation documentation, and

- Light blocking isokinetic probes, probe stands, high pressure diffusers, carrying cases, software, validation documentation, and other accessories sold separately.
- Recommended calibration frequency, every 12 months with monodisperse polystyrene spheres traceable to NIST.

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654 Petrolia Road, Toronto, ON M3J 2W3

CI-750 Series Airborne Particle Counters 75 LPM Flow Rate 4-Channels When Accuracy Matters!™



High Accuracy High Reliability HEPA Filtered Exhaust Internal Data Storage Audible Alarm: Built-in, Adjustable & Programmable Touchscreen Display Internal Thermal Printer Internal Battery Charger Smallest Footprint Clone Settings Unit-to-Unit

Connects to existing network infrastructure and LIMS Software.

ISO 21501-4 ISO 14644-1 EU GMP, Annex 1 FS-209E JIS 9921 21 CFR Part 11

Applications Include:

Cleanroom Monitoring & Validation Medical Device Manufacturing Pharmaceutical Manufacturing Semiconductor & Disk Drive Mfg. Research & Development Unsurpassed ease of use and reliability. Seamless stainless steel enclosure simplifies cleaning and sanitation. Lightweight and the industry's smallest 75 LPM footprint allows the device to be easily transported.

Reliability, Accuracy & Support

The **CI-750 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. 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 "In Tolerance" rate of more than 98%. This study includes some units that have been manufactured more than 20 years ago. Simply, Climet particle counters are designed, tested, and calibrated with very tight tolerances to exceed industry standards. Years 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!

Return On Investment

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 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 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.

Food & Beverage Processing Aerospace Assembly Hospitals Cosmetic Manufacturing



CI-750 Series Specifications

Configurations	CI-750t = 75 LPM particle counter w/ RS-232 data transfer with HEPA filtered internal exhaust
	CI-752x = 75 LPM particle counter w/ RS-232 data transfer *
	CI-753 = 75 LPM particle counter w/ RS-232, Ethernet (http webserver, Modbus and TELNET) *
	CI-754 = 75 LPM particle counter w/ RS-232, Ethernet and USB data transfer *
	CI-755 = 75 LPM particle counter w/ RS-232, Wi-Fi Ethernet (http webserver, Modbus and TELNET) *
	CI-756 = 75 LPM particle counter w/ RS-232, Wi-Fi Ethernet and USB data transfer *
	* All models have HEPA filtered external exhaust except for the CI-750t model.
Performance	Sample Flow Rate: 75 LPM (0.075 cubic meter per minute, or 2.65 cubic feet per minute)
	Sample Volume: Adjustable in cubic feet, cubic meters, or in liters
	Sample time to measure a cubic meter: 13.3 minutes
	Flow Rate Control: Yes. Electronic, automatic closed loop.
	HEPA Filtered Exhaust: Yes, all models certified to ISO Class 3.
	Standard Particle Channel Sizes: 0.3, 0.5, 1.0, 5.0 microns (Other sizes upon request)
	Concentration Limit: 13,300 particles per liter (13.3x 10 ⁶ particles per cubic meter) (10% coincidence)
	Resolution: Exceeds requirements of ISO 21501-4 of 15% (4-10% typical)
	Count Efficiency: 50% Count Efficiency exceeds ISO 21501-4 of $\pm 20\%$ ($\leq \pm 10\%$ typical)
	100% Count Efficiency @ ±10% per ISO 21501-4
	Max. False Count: 2.7 / CM \ge 0.3 µm (95% UCL) per ISO 21501-4
	Optics: Rhodium plated metal ellipsoidal mirror (extreme durability and resistant to contamination)
	Laser Diode: Optimal balance of long life, stability and resolution for improved accuracy.
	Cleaning: Compatible with common cleaning and sterilization procedures, including VHP.
Programming & Memory	Program: Up to 30 user-defined and named programs; containing IDs and settings
	Memory: 3000 samples: Date, Time, 4 Particle Channels, Flow, ID, Sample Volume
	Unit ID: User Selectable
	User ID: Up to 20 users, plus supervisor, with password security
	Security: Four security levels, with user authentication
	Location ID: Up to 100 per program; 16 characters.
	Cloning: All models Unit-to-Unit, and PC-to-Unit. Cloning or via USB flash drive (CI-754 model)
Included Accessories and	All models come with an internal thermal printer, internal battery charger, battery, stainless steel isokinetic
Features	probe with 10 feet of tubing, zero count filter, two rolls of paper, cloning cable, IQ/OQ Docs, manual, and exter-
	nal exhaust fitting on appropriate models. Flash drive with USB models.
Electrical	Battery: 9.6 VDC, 12.6 Amp Hour
	Battery Operation: 4 hours (typical) with continuous sampling
	Battery Recharge time: 3.5 - 4 hours (<i>built-in charger</i>)
	Wall Power: Universal 100-240 VAC Input
Dimensions	8.65"(H) x 8.5" (W) x 9.5" (L) (21.97 cm x 21.6 cm x 24.1 cm)
	11.0 lb. (4.99Kg) without battery; and 14.25 lb. (6.46 Kg) with battery
Environmental	Operating temperature: 0-36°C, 32-97°F
Environmental	Operating temperature: 0-36°C, 32-97°F 0-90% relative humidity, non-condensing

- Light blocking isokinetic probes, probe stands, high pressure diffusers, carrying cases, software, validation documentation, and other accessories sold separately.
- 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.



654 Petrolia Road, Toronto, ON M3J 2W3

CI-1050 Series Airborne Particle Counters 100 LPM Flow Rate 4-Channels When Accuracy Matters!™



High Accuracy High Reliability HEPA Filtered Exhaust Internal Data Storage Audible Alarm: Built-in, Adjustable & Programmable Touchscreen Display Internal Thermal Printer Internal Battery Charger Smallest Footprint Clone Settings Unit-to-Unit

Connects to existing network infrastructure and LIMS Software.

ISO 21501-4 ISO 14644-1 EU GMP, Annex 1 FS-209E JIS 9921 21 CFR Part 11

Applications Include:

Cleanroom Monitoring & Validation Medical Device Manufacturing Pharmaceutical Manufacturing Hospitals Semiconductor & Disk Drive mfg. Unsurpassed ease of use and reliability. Seamless stainless steel enclosure simplifies cleaning and sanitation. Lightweight and the industry's smallest 100 LPM footprint allows the device to be easily transported.

Reliability, Accuracy & Support

The **CI-1050 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. 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 "In Tolerance" rate of more than 98%. This study includes some units that have been manufactured more than 20 years ago. Simply, Climet particle counters are designed, tested, and calibrated with very tight tolerances to exceed industry standards. Years 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!

Return On Investment

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 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 for cleanroom monitoring, validation, and certification.

Custom Engineered Solutions

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Food & Beverage Processing Aerospace Assembly Research & Development Cosmetic Manufacturing



CI-1050 Series Specifications

Configurations	 CI-1052x = 100 LPM particle counter w/ RS-232 data transfer CI-1053 = 100 LPM particle counter w/ RS-232, Ethernet (http webserver, Modbus and TELNET) CI-1054 = 100 LPM particle counter w/ RS-232, Ethernet and USB data transfer CI-1055 = 100 LPM particle counter w/ RS-232, Wi-Fi (http webserver, Modbus and TELNET) CI-1056 = 100 LPM particle counter w/ RS-232, Wi-Fi and USB data transfer
Performance	 Sample Flow Rate: 100 LPM (0.1 cubic meter per minute, or 3.53 cubic feet per minute) Sample Volume: Adjustable in cubic feet, cubic meters, or in liters. Sample time to measure a cubic meter : 10 minutes Flow Rate Control: Yes. Electronic, automatic closed loop. HEPA Filtered External Exhaust: Yes, all models and certified to ISO Class 3. Standard Particle Channel Sizes: 0.5, 1.0, 3.0, and 5.0 microns (Other sizes upon request) Concentration Limit: 10,000 particles per liter (10 x 10⁶ particles per cubic meter) (10% coincidence) Resolution: Exceeds requirements of ISO 21501-4 of 15% (4-10% typical) Count Efficiency: 50% Count Efficiency exceeds ISO 21501-4 of ±20% (<±10% typical) 100% Count Efficiency @ ±10% per ISO 21501-4 Max. False Count: 2.0 / CM > 0.5 µm (95% UCL) per ISO 21501-4 Optics: Rhodium plated metal ellipsoidal mirror (extreme durability and resistant to contamination) Laser Diode: Optimal balance of long life, stability and resolution for improved accuracy. Cleaning: Compatible with common cleaning and sterilization procedures, including VHP.
Programming & Memory	 Program: Up to 30 user-defined and named programs; containing IDs and settings Memory: 3000 samples: Date, Time, 4 Particle Channels, Flow, ID, Sample Volume Unit ID: User Selectable User ID: Up to 20 users, plus supervisor, with password security Security: Four security levels, with user authentication Location ID: Up to 100 per program; 16 characters. Cloning: All models Unit-to-Unit, and PC-to-Unit. Cloning via USB flash drive (CI-1054 model)
Included Accessories and Features	All models come with an internal thermal printer, internal battery charger, battery, stainless steel isokinetic probe with 6.5 feet of tubing, zero count filter, two rolls of paper, cloning cable, IQ/OQ Docs, manual, and external exhaust fitting on appropriate models. Flash drive with USB models.
Electrical	Battery: 9.6 VDC, 12.6 Amp Hour (only one battery needed, and included) Battery Operation: 3.5 hours (typical) with continuous sampling Battery Recharge time: 3.5 - 4 hours (<i>built-in charger included.</i> An external charger is also sold separately.) Wall Power: Universal 100-240 VAC Input
Dimensions	8.65"(H) x 8.5" (W) x 9.5" (L) (21.97 cm x 21.6 cm x 24.1 cm) 11.0 lb. (4.99Kg) without battery; and 14.25 lb. (6.46 Kg) with battery
Environmental	Operating temperature: 0-36°C, 32-97°F 0-90% relative humidity, non-condensing

- Light blocking isokinetic probes, probe stands, high pressure diffusers, carrying cases, software, validation documentation, and other accessories sold separately.
- Recommended calibration frequency, every 12 months with monodisperse polystyrene spheres traceable to NIST.

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