

C100™

MODULAR TACTICAL COLLECTOR

The C100™ Modular Tactical Collector is designed for field collection of bioaerosols. The collector utilizes a semi-automated rinse process which yields a 6 ml aqueous sample for field and laboratory analysis.

The C100 is intended for use as a stand-alone collector when mounted on a base module or as a component within a modularly-integrated system that would also include detection and identification components. It can be mounted directly on the IBAC™ bioaerosol detector.

The C100 can be mounted on an optional battery-operated base module that houses electronics for system control and monitoring and fittings for power adapters and serial connectors. The base module can be triggered or manually operated.

It is optimized for enhanced collection of small particles such as single spores. The C100 may be operated via standard military battery or through a DC power transformer. Initiation of a collection cycle can be manual using the interface on the base unit or may be triggered for collection using a serial interface. Triggered sampling time is firmware configurable and has a default time of 10 minutes. Continuous sampling can be conducted on a single BA 5390/U battery for up to fourteen hours.



FEATURES

- Collects airborne particulates of 1 to 10 microns that may represent potential threat agents
- Flow rate of 150 liters per minute of air
- Collects continuously for up to 14 hours on a single battery charge
- Collects via a manual or serial trigger
- Battery-powered operation or via a DC adapter to standard wall power
- Simple, sterile, premeasured buffered solution for rinsing sample into a liquid
- Designed for outdoor use with a rain hood that functions as an omni-directional inlet with large particle pre-filter
- Water Resistant

The collector module subassembly is based on ICx Technologies' rotating impactor technology and is designed to sample the ambient air at a nominal flow-rate of 150 liters per minute (lpm). The impactor rotates at high speed, both entraining air into the system and collecting particles onto the surface. Following sampling, the rotating disk is rinsed using pre-measured, individually-packaged fluid to extract the collected particles from the impactor into a small liquid volume of buffered saline. Additionally, the C100 includes a consumable kit that contains twist-tip vials with sterile rinse fluid and sterile collection vial for sample containment.

SPECIFICATIONS

Dimensions (C100)	5.5" Dia x 6" H 10.5"H x 5.5"W x 8"D (on base module)
Weight (C100)	2.5 lbs
Weight (Base Module)	5.5 lbs (2.5 kg) with battery 2.5 lbs (1.1 kg) without battery
Nominal Flow Rate	150 lpm
Particle Size Collection	1 to 10 microns
Collection Media	Buffered rinse fluid provided in pre-measured vials
Sample Size	6 ml
Sample recovery method	Semi-automated rinse (performed after collection)
Power Supply	BA 5390/U battery or AC to DC transformer
Battery Run Time (room temperature)	14 hours

