ecotech
environmental monitoring solutions

MicroVol 1100

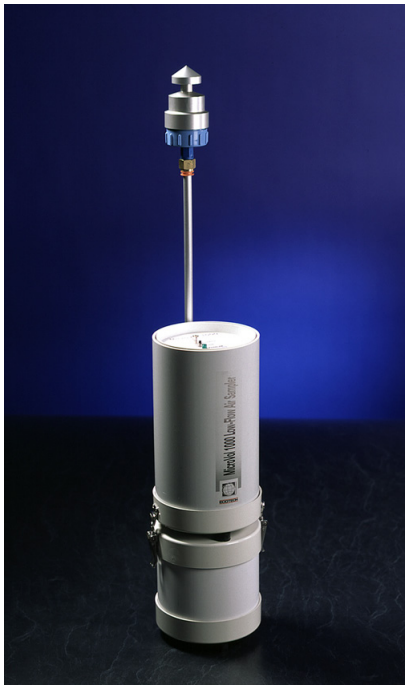
LOW VOLUME AIR SAMPLER

The MicroVol 1100 low volume air sampler provides a flexible sampling platform for PM_{10}, $PM_{2.5}$ or TSP particulates and basic meteorological parameters.

The MicroVol 1100 is suitable for both indoor and outdoor applications. The unit is microprocessor controlled and uses a mass flow sensor in conjunction with ambient temperature and pressure sensors to automatically maintain a constant volumetric flow rate.

Approvals

- PM10 AS/NZS 3580.9.9 2006.
- PM2.5 AS/NZS 3580.9.10 2006.
- Manufactured under ISO9001 and ISO 14001.



Indoor sampling

- Low power consumption.
- Quiet operation-ideal for indoor air quality studies.
- Volumetric flow control automatically corrected to standard reference temperature.
- Ultra-efficient, long life DC pump delivers flow rates of 1.0 to 4.5 l/min.

Outdoor sampling

- Wind direction and speed used to activate/de-activate sampler.
- Fence line monitoring available with a network of samplers.
- Built for all conditions - light weight, rugged weatherproof construction.
- Can operate via battery or solar power sources (optional).

Enhanced communication

- RS232 output for data collection and remote communication.
- Filter block and instrument error alarms available.
- Total control of instrument remotely from PC.
- Simple programming of sampling periods, including daily and weekly programs, with in built '1-in-X day' sampling capability.

Directional sampling

- Wind direction and speed used to activate/de-activate sampler.
- External trigger (0-5VDC) can be used for activating sampling program.

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SPECIFICATIONS

Operation:	Microprocessor controlled (internal data logging)
Volumetric flow range/accuracy:	1.0- 4.5 l/min
Flow accuracy:	± 2% of reading
Flow repeatability:	± 0.5% of reading
Temperature range/accuracy:	0-45 deg C ± 1 deg
Barometric pressure range:	600-900 Torr ± 4 Torr
Filter types:	47 mm ringed circular filter
Inlets available:	PM_{10}, TSP (standard), $PM_{2.5}$ (optional)
Sampler dimensions:	300 mm (height) x 170 mm (diameter)
Sampler weight:	3.75kg
Battery pack dimensions:	185 mm (height) x 170 mm (diameter)
Battery pack weight:	4.4 kg
Battery pack life:	48 hours sampling from fully charged battery pack
Operating voltage:	12 V DC
Power consumption:	2.5 - 3 watts depending on filter loading
Standard accessories:	TSP/PM_{10} size selective inlet
	Single 47mm filter holder
	100-240V AC to 12V DC power converter
	MicroVol Downloader software & RS232 cable

Communications/Data logging

No. of readings:	150 (averaging period is user selectable, for example 75 hours of 30min averages
External inputs:	1 x wind direction sensor input (10k potentiometer)
	1 x wind speed sensor input (contact closure) or alternatively
	1 x spare contact closure input (eg. Tipping bucket rain gauge)
Output:	RS232C

OPTIONS

- Purpose built battery pack, or solar panel and battery pack.
- Moisture elimination system.
- Optional $PM_{2.5}$ size selective inlet adaptor.
- Optional wind speed and direction sensor or tipping bucket rain gauge.

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An ISO 9001. 17025, 14001 & AS4801 certified company

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