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**
- PM$_{10}$ AS/NZS 3580.9.9 2006
- PM$_{2.5}$ AS/NZS 3580.9.10 2006
- Manufactured under ISO 9001.

**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 - lightweight, rugged weatherproof construction
- Can operate via battery or solar powered 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 - 5 VDC) can be used for activating sampling program.
COMMUNICATION & DATA LOGGING

Number of readings
- 150 (averaging period is user selectable, e.g. 75 hrs of 30 min averages)

External inputs
- 1 x wind direction sensor input (10 k potentiometer)
- 1 x wind speed sensor input (contact closure)
- 1 x spare contact closure input (e.g. 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.

SPECIFICATIONS

Operation:
- Microprocessor controlled
  (internal data logging)

Volumetric flow
range/accuracy:
- 1.0 - 4.5 L/m

Flow accuracy:
- ± 2 % of reading

Flow repeatability:
- ± 0.5 % of reading

Temperature range
accuracy:
- 0 to 45 °C ± 1 °C

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 x 170 x 170

Sampler weight:
- 3.75 kg

Battery pack dimensions:
- 185 x 170 x 170

Battery pack weight:
- 4.4 kg

Battery pack life:
- Up to 40 hours sampling from fully charged battery pack

Operating voltage:
- 12 VDC

Power consumption:
- 2.5 - 3 watts depending on filter loading

Standard accessories:
- TSP/PM$_{10}$ size selective inlet
- Single 47 mm filter holder
- 100 - 240 AC to 12 VDC power converter
- MicroVol Downloader software
- RS232 cable

Specifications subject to change without notice.

ECOTECH Pty Ltd (Global Head Office)
1492 Ferntree Gully Road   Knoxfield VIC 3180   Melbourne Australia
+61 3 9730 7800   email@ecotech.com   ecotech.com

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