



Air Flow PM2,5-HVS

Sampler for environmental parameters

- Sampler according to EN-14907
- High volume sampler dedicated to PM2.5 particles with a suction flow of 500 litres/minute in compliance with norm UNI-EN 14907 (reference sampler).
- Volumetric flow control in compliance with ISO-5167
- Complete management of sampling phases from the Microprocessor with standard deviation control and visualisation
- Connection with weather sensors dedicated to the detection of wind speed and direction for sector sampling (sensors not included) and optional Rain and Humidity sensor
- GSM/GPRS remote data management (Optional)
- External shelter manufacture entirely in non-corrosive anodised aluminium
- Detection of ambient temperature and atmospheric barometer pressure
- Flow indicator: Digital on plasma display
- Programming: sampling cycles via electronic main board
- Plasma HD back-lit graphics display
- Bidirectional RS 232
- USB port for transfer data and easy upgrade on instrument firmware
- Automatic Re-Start in the event of a loss of voltage with memorisation of sampling periods and stopped time display
- Back pressure control by graphics display

The new impactor models have been manufactured in full respect of features published in reference norms regarding impactor for PM2.5 dust particle fractionation, with the option of simple adaptor kits for interchanging between one sampler and another for extremely easy, versatile use. All sampling phase settings are programmable from electronic programming microprocessor and sampling can be set by time, volume, cyclical sampling, sampling by quadrant sector. All reported data is memorised and transferred to the PC or optional local printer, with a choice of GSM/GPRS remote control (optional).

Thanks to the new microprocessor system, all data corresponding to set values and to sampling values beyond the graphic flow control progression can be viewed to guarantee proper sampling.

Technical Specifications

- External sampler shelter Non-corrosive anodised aluminium
- Insulation Class IP55
- Sampling Flow 200-1300 litres/ minute
- Filter type 150mm circular
- Flow control Electronic with Venturi ISO 5167 device
- Suction pump Blowing in three magnetic induction stages
- Power 220 Volt/50 Hz
- Absorption (Ampere) 15 at start / 4 during operating phases
- Dimensions 120x37x37 cm (hxlxw)
- Weight 14.0 Kg
- CE Compliance for electric and electromagnetic safety
- RS232 and USB port for easy data transfers

Airflow PM-HVS samplers can also be installed on non-smooth surfaces thanks to the adaptable resting structure with an anti-slip rubber ball joint.

Expandability

A weather sensor unit can be coupled with the sampler to simultaneously detect wind speed and direction. This option allows for sampling to be carried out in source quadrant sectors to therefore dedicate sampling exclusively in involved sectors. The start of sampling will depend on wind direction and speed, with start parameters directly set by the user.

Combined PM10/2.5 and Micropollutant sampler (Puf sorbent cartridge)

The Air Flow HVS-PM10/2.5 sampler can insert a cartridge device containing a layer of polyurethane for IPA and Dioxin sampling in its sampling line, in compliance with norm ISO 12884. The special feature of this system is that it can simultaneously sample IPA, PM10 or IPA fraction dusts and PM2.5 dusts. The fractionator head carries out particulate cutting at the provided flow of 500 litres per minute, allowing also for the acquisition of a sample supplied with a higher volume to increase analytic phase sensitivity. A special container (600/ADPT004ENDHVSK) must be inserted in the compartment immediately after the filter holder for Puf vial positioning.

Adapter kit

This system's true innovation lies in its ability to interchange preselectors thanks to adapter kits. These supports allow for easy adaptability and rapid re-connection of the sampler itself. The accurate flow control system ensures precise sampler regulation in all configurations. Impactors and inlets can be adapted for pre-existing Air Flow-Pur sampler dusts. Air Flow PM-HVS samplers can be modified in TSP samplers with a filter holder support with a 150mm and 8x10 squared filter, and it is also possible to insert a purified polyurethane foam support in line with the PM2.5 dust sampler for simultaneous sampling of PM2.5 and IPA as per directive 107/2004.

Airflow HVS samplers are supplied complete with a power cable, instruction manual in Italian, adjustable support for uneven surfaces, control compartment lock and NMI certified standard means flow control certification. Software for transferring data memorised on the board and for later processing is also included in supply.

The Air Flow PM-HVS high volume sampling line includes an instrument thoroughly compliant with requirements of norm UNI-EN 14907 for sampling of PM2.5 particles. This system is equipped with an electronic flow control with a Venturi system in accordance with norm ISO 5167 for the measurement of flow rate with a differential pressure devices and the detection of pressure on 4 sector points for maximum result accuracy and reliability.

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