



ENVIRONMENT

SAMPLING
SOLUTIONS



CALIBRATION
& METROLOGY

SELECT ONE



- OUTDOOR Sampling of TSP, PM₁₀, PM_{2,5} and PM₁
- Constant flow
- Regulation of flow to sampling head conditions
- Alarm recording



CARE FOR THE
ENVIRONMENT



SELECT ONE

The SELECT ONE sampler is designed to perform daily sampling of fine dust (PM₁₀, PM_{2,5}, PM₁) in OUTDOOR environments, by adjusting the sampling flow to environmental conditions.

The sampler is equipped with a 5 m³/h elevated hydraulic rotary pump. It works on the effective power required for sampling to guarantee longer blade life, thus reducing maintenance costs. It also reduces sound emissions, allowing the unit to be used in residential areas without causing nighttime disturbances.

The electronic flow regulation system provides automatic compensation for load loss on the sensor allowing sampling to be performed at a constant flow. The "catcher" is supported by a bracket in the upper part of the cabin. The filter holder allows for quick connection of the sampling heads.

The modularity of the sampling heads allows the system to be used with USEPA 40, CFR Part 50 heads.

The control unit can also be equipped with an optional interface for the connection of an external solenoid valve system (SELECT 8) for sampling dust totals (TSP) with a capacity of 8 or 16 filters.

Data can be managed via the keyboard and sampling parameters are always available on the display. At the conclusion of the sampling, they are stored in the final report, which also includes calculation of the normalized volume.

The instrument is equipped with a back-up battery, allowing the program in progress to be paused in the case of a power failure. When the power is back on, the instrument automatically resumes sampling, and registers the event in the final summary.

The dry gas meter, on request, can be certified EN 17025.

MAIN FEATURES

- Constant flow rate with automatic compensation for load losses.
- Electronic system for adjusting flow rate allows updates in real-time sampling flow and ensures constant volumetric flow in the sampling area where granulometric separation takes place, maintaining constant air speed at the fractionator intake
- The system guarantees grip/tension loss of less than 1% of the set nominal flow.
- Digital flow is set using the keyboard.
- Dedicated temperature sensors (filter and meter) record and detect pressure (environment and loss of pressure on the sampling line).
- Memory for data storage.
- "Buffer" battery for restart in case of power failure, which also records the event.
- Environmental sampling with constant flow rate of TSP, PM₁₀, PM_{2,5} and PM₁ in compliance with European and American standards.
- The parameters can be certified, on request, by EN 17025 accredited laboratories.

TECHNICAL SPECIFICATIONS

■ Performance			
Type of pump	Rotary vane 5 m ³ /h		
Operating range	12 ÷ 70 l/min		
Maximum vacuum	> 600 mmHg		
Pump cooling system	Forced ventilation Dissipation coil		
Meters: Volumetric / Resolution / Accuracy	G4 / 0,2 l / ± 2%		
Volume: Resolution / Accuracy	1 l / 2 %		
Flow: Resolution / Accuracy	0,01 l/min / 2%		
Sampling time	Uncertainty: < 30 s/gg		
■ Interface, Data Archiving			
Display	Alphanumeric LCD (40x2)		
Interface	RS232 remote data acquisition USB host (on Pen Drive)		
GSM Modem	✓		
■ Environmental Conditions			
Working Temperature Range	0 ÷ 45 °C		
Humidity	95% rH		
Atmospheric pressure	800 ÷ 1100 mbar		
■ Energy			
Power	230 ± 10 Vac / 50 ÷ 60 Hz		
Consumption	280 W		
Absorbed power	700 VA		
■ Features			
Protection level	IP55		
Acoustic power (8m distance)	<33 dB(A)		
Weight	25 kg		
■ Options			
Dry gas meter certification EN 17025	✓		
Interface for connection to sampling system TSP (SELECT 8)			
Stand for fixed position installation			
■ Supplied With			
Technical Manual			
Test report			
■ Temperature Sensors			
	Range	Resolution	Accuracy
Gas Meter	-20 ÷ +50 °C	0,1 °C	±1 °C
Environment	-20 ÷ +50 °C	0,1 °C	±1 °C
Filters	-20 ÷ +50 °C	0,1 °C	±1 °C
■ Pressure Sensors			
	Range	Resolution	Accuracy
Barometric	800 ÷ 1100 mbar	0,1 mbar	± 2 mbar
Vacuum (line load loss)	0 ÷ 760 mmHg	1 mmHg	1% FS