



Atmospheric Particulate Matter Sampler

ECHO PM

ECHO PM is a "stand alone" instrument projected also for outdoor operation in harsh climatic conditions.

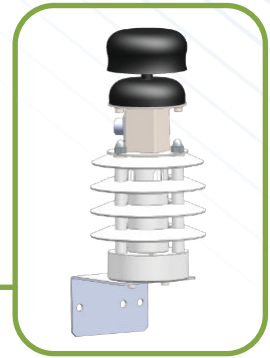
The wide regulation range and the accurate electronic flow sampling control at either actual or standard conditions, makes **ECHO PM** in accordance with the reference methods **EN 12341** for PM10 with head LVS PM10 2.3 m³/h, and **US EPA 40 CFR part 50** for PM10 and PM2.5 at 1m³/h.*

Developed and realized to allow the maximum utilizing flexibility, the **ECHO PM** satisfies the hardware and software requests that permits up to 2 sequential sampling lines**.

Supplied with respective sampling head **ECHO PM** can be utilized respecting the "ISO/CD 16362 for the determination of polycyclic aromatic hydrocarbon PAHs" sampling norms.

*Possibility to monitor PM10, PM2.5, PM1, REALTIME trend concentrations and 24 sizes classes particle distribution and CO2 and relative humidity.

**Facultative options.





ECHO PM

MAIN FEATURES

- ① In compliance with the following norms:
EN12341, EN15549, ISO 16362, ISO 12884.
- ① Autonomous sampling with maximum 2 sequential samples*;
- ① Electronically controlled flow rate sampling at standard and actual conditions;
- ① Wide graphical display with background illumination, dedicated keyboard, RS232 interface;
- ① Permanent date and hour programming;
- ① Sampling time with 1" resolution is selectable from 1' to 168 h;
- ① PM10, PM2.5, PM1, OPC real time dimensional classes 24 CO₂ and relative humidity real time;

Measured and memorized parameters:

- > Flow rate;
- > Totalized volumes;
- > Ambient temperature;
- > Ambient pressure;
- > Filter load.

Memorization of more than 60 sampling reports;

Memorization of flow sampling of 5 minutes interval;

Reduced dimensions and weight light alloy cabin, suitable for outside installation;

Remote control via GSM SMS (*);

Sample conditioning in relation to wind speed and direction*.



And MORE!

- ✓ Automatic reference flow control sampler for PM10 / PM2.5 according to reference method CEN EN 12341
- ✓ Automatic reference flow control sampler according to reference VDI 2267 and CEN EN 14902
- ✓ Automatic reference flow control sampler for Elemental Carbon / Organic Carbon (EC/OC) in PM10 according to VDI 2465 and CEN EN/TR 16243
- ✓ TSP measurement according to VDI 2463 parts 7 and 8 with sequential module up to 24 positions
- ✓ Sampling of PAHs, BaP, PCB, PCP / lindane, PCDD and PCDF, dioxines and furans by means of a PU cartridge with pre-filter (TSP) according to EN15549
- ✓ Sampling of bioaerosols according to the relating standards
- ✓ Asbesto sampling
- ✓ Touch screen/button user interface
- ✓ Internal memory for data archive
- ✓ USB, WIFI (with TCR TECORA app) ethernet connection for data download and control (via TCR TECORA web server)
- ✓ Anodized aluminium housing for outdoor use
- ✓ Optical particle counter for instantaneous PM10, PM2.5, PM1 analysis with 24 dimensional classes analysis (Optional)
- ✓ Wind speed wind direction sensor with possibility to program sampling start as a function of WD/WS (Optional)
- ✓ MODEM for remote data download and control



ECHO PM

TECHNICAL FEATURES and CODES

Flow Range	10 - 50 l/min
Flow Rate at Inlet	> 50 l/min
Pump Type	4.2 m ³ /h dry rotary vane
Autonomy	max 3 sequential samples*
Power Supply	220/240 Volt 50Hz
Operative conditions (Low Temp. Kit)	-3°+40°C (-20°C+40°C with low temp kit) AA99-009-9901SP
Dimensions mm	340 x 250 x 440 mm (b x p x h) Without Stand
Weight Kg	19 Kg
ECHO PM 1 Sampling Line, Pwr Supply 230Vac	AA99-009-0015SP
ECHO PM 2 Sampling Contemporary Lines, Pwr Supply 230Vac	AA99-009-0017SP
ECHO PM 3 Sampling Contemporary Lines, Pwr Supply 230Vac	AA99-009-0018SP
P/N of aluminium stand	AA99-009-9910SP
P/N Ultrasonic Wind Speed Direction Sensor	AA99-009-9921SP

APPLICATIONS

