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Atmospheric Particulate Matter Sampler

Smart PM Atmospheric Particulate Matter Sampler is an advanced sampler used to determine particulate matter of size 2.5, 10 microns and smaller concentration in atmosphere. The wide regulation range and the accurate electronic flow sampling control at either actual or standard conditions, makes Smart PM in accordance with the reference methods.

The sampler complies with the EPA 40 CFR Part 50 reference method for PM10 determination. It can also be used for PM2.5 sampling with M10 cap and 2.5 micron impactor cut separator. The sampler is also suitable for the EN 12341 method for sampling PM 10 at 2.3 $\text{m}^3\text{/h}$ and PM 2.5 to 1 $\text{m}^3\text{/h}$.

The following data captured during sampling are saved in the internal memory. The data can be additionally backed up on an flash drive by way of the USB interface:

- Serial number
- Sampling start and end date/time
- Sampling duration in hours and minutes
- Mean volumetric flow rate in m³/h and Nm³/h
- Sampled volume in m³ and Nm³
- Mean air pressure/temperature/humidity
- Mean pressure difference at the filter

Measurenment Parameters:

- Sampling flow rate:

Device : Orifice meter
Range : $10 \div 60 \text{ l/min}$ Accuracy : Better than 1%
Resolution : $0.01 \pm \text{ l/min}$

- Absolute pressure (Static or barometric) :

Range : 0 ÷ 105 kPa (1050 mBar)

Accuracy : Better than 1% of measure ± 0.01 kPa

Resolution: 0.01 kPa (0.1 mBar)

- Ambient Temperature (PT 100 Sensor):

Range : $0 \div 80$ °C Resolution : 0.01 °C





Technicial Specifications:

- Material : Duble painted aluminum - Display : 5.0 " color LCD display

- Data port : USB 2.0 - Printer port : Bluetooth (*)

- Data Transfer: To PC by USB 2.0, Bluetooth to Printer
 - Dimension : 395 x 262 x 502 mm (W x D x H)
 - Weight : 13 kg (with 4.5 m³/h pump)