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# High Volume sampling system for outdoor air monitoring

- Sampling: PAHs, MICROPOLLUTANTS, PM10, RADIOACTIVE DUSTS
- Electrovalve system for sequential sampling
- Intuitive management panel
- Dedicated software for data download

MULTIPLE SAMPLINGS WITH ONE DEVICE

VOLUMETRIC COUNTER INCORPORATED

GSM REMOTE CONTROL

ALVOL 400

Max flow rate: 400 l/min

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In compliance with :
- ISO 16362 / ASTM D-6209 (PAH)
- US-EPA methods TO4A, TO9A, TO13A (PAH)
- ISO 12884 / UNI EN 12341 (PM10)
- US EPA cfr 40 part 50.11 (PM10)
- ISO 2889:2010 (RADIOACTIVE DUST)

**Total weight: 72,00 kg**
**Max. size: 172 x 52 x 51 cm**

ALVOL 400 is a **high volume sampling system for PAHs, pesticides and micropollutants, particulate matter (PM10), total dust (TSP) and radioactive dust** in urban and suburban areas.
The **structure is compact**, entirely realized in aluminum, and **divided in three parts** :
1 - pump unit (lower side)
2 - control unit (in the center)
3 - sampling unit (on the top).

This modularity together with a very light system allow an easy transportation, even by a unique person.
In its basic configuration, the monitoring station is fully insulated and provided with fans for air circulation.
On the control panel the user finds a backlight display with digital keyboard, a printer and all the switches useful to activate the different functions of the sampler.

**HARDWARE FEATURES:**
- ROTARY PUMP
- Nominal flow rate 25 m³/h (400 l/m approx)
- DRY VOLUMETRIC GAS METER
- SENSORS:

Ambient temp., Meter temp.:
range -20 ÷ 60 °C
resolution 0,1°C
accuracy ±2 %

Barometric pressure, Differential pressure:
range 700 ÷ 1200 hPa
resolution 1 hPa
accuracy ± 1 hPa

- Automatic compensation for loading losses
- Buffer battery with more than 6 hours autonomy
- Alarm system signaling anomalies and automatic interruption of the sampling due to not compensated flow (with memorization of set up and acquired data)
- The **GSM system** (optional) sends a SMS on the mobile phone in case of anomalies on the Alvol 400 and allows to start/stop the sampling with a text message.
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**SOFTWARE FEATURES:**
- Software to **program the sampling flow rate and duration**.
- **Control panel** for operations in dialogue mode
- **New data management:** storage and printing of values. The memory space can be adjusted by increasing or decreasing the record timing. Stored data are protected by password from accidental cancellation.
- Programmable duration and kind of sampling even with gaps set by the user
- Last sampling program recalling
- Possibility to **manage an electrovalves system** to perform sequential sampling
- Data can be downloaded by **USB port on a dedicated software**.
- Built-in serial **printer,** LCD display and polycarbonate keyboard
- **Recorded data**:

Volumetric flow on the sampling head
Average of volumetric flow during the sampling
Volume flow Coefficient of Variation (CV)
Indication of exceeding the 10% of set up range for more than 5minutes
Total volume sampled
Ambient temperature (near the filter)
Average, min., max. ambient temperature during sampling
Atmospheric pressure
Average, min., max. atmospheric press. during sampling
Pressure drop on the filter during the sampling
Average, min., max. pressure drop during sampling

**ACCESSORIES FOR EACH SAMPLING:**

**PAH and MICROPOLLUTANTS**
Side Panel with small roof
and PUF cartidge

**PM10**
Sampling head for high volume samplings

**Adaptor nozzle to sample contemporary PAH and Pm10**

**TSP and RADIOACTIVE DUST**
Membrane holder with nozzle adaptor:
Ø 47 mm, Ø 55 mm for Radioactive dust
Ø 102 mm, Ø 150 mm for TSP

**ELECTROVALVE SYSTEM for sequential sampling**

**PF 11110-00 High volume sampling system mod. ALVOL 400**

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