



Aerosols and Iodine sampler

PA 1000 Turbine

➡ PA1000 Turbine is used for filter sampling of airborne aerosols and iodine

Applications :

- Solid particle sampling for analysis of radioactivity, weight contents, chemicals, pesticide, asbestos.
- Air Monitoring in workplaces (Industry, Hospitals,...)
- Response on radiological incidents.
- Expertises.



PA 1000 Turbine with filter holder 140mm



- In situ sampling on filters or carbon cartridges, followed by laboratory analysis.
 - Centrifugal turbine, nominal flowrate $1.5 \text{ m}^3 \cdot \text{h}^{-1}$ maximum
 - Low noise operating
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- Regulation of the sampling flow at the nominal value chosen by the user.
 - Protected Access by confidential code, no ON/OFF switch accessible.
 - 3 operating modes: continuous, timer, programmed.
 - Display of the values for the sampled volume and the instant flow rate.
 - Data reading and parameter setting via keyboard or *PaView* software.
 - Compliant with the French standard M 60-760 and IEC 61172.

ALGADE INSTRUMENTATION

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PA 1000 Turbine

Specifications

Sampling media:

« pink C577 », « yellow C569 » paper filters, fiberglass, membrane.

Activated carbon cartridges.

Sampling head:

Standard diameters 51, 78, 90, 130, 140 mm

Sub standard diameters allowed

Sintered bronze filter support for homogeneous sampling

Closure by screw ring

Adjustable angle (45° or 90°) - *optional*

Displacement of the sampling media allowed - *optional*

Sampling pump:

Centrifugal turbine, 12VDC

Sampling flow rate:

Nominal flowrate adjustable by the user, by the keyboard or by the **PAView** software, available on www.algade.com

Standard value $1.5 \text{ m}^3 \cdot \text{h}^{-1}$

Maximum value $1.6 \text{ m}^3 \cdot \text{h}^{-1}$

Flow stability $\pm 2.5 \%$ of the nominal flowrate

Regulation flowrate every 36 seconds.

Measurement uncertainty $< 5\%$ ($k=2$).



To order :

1- **Type of instrument**
PA 1000T

Reference
P-531-104

2- **Filter holder**
Filter holder, diameter 51/47 mm *
Filter holder, diameter 78 /70 mm*
Filter holder, diameter 90/80 mm *
Filter holder, diameter 130/120 mm *
Filter holder, diameter 140/125 mm *
Cartridge holder, diameter 51 mm

P-531-110
P-531-130
P-531-111
P-531-129
P-531-112
P-531-113

(*) Refers to the outside diameter / sampling diameter

3- **Accessoires**
45° elbow to orient the holder filter
90° elbow to orient the holder filter
Filter holder protection for outdoor use

P-531-114
P-531-115
P-531-124



Specifications

Sampling modes:

Continuous : Manual mode sampling

Pré-set : Sampling during a predetermined period

Programming : Weekly programming with a daily operating range.

Checked parameters:

Temperature: accuracy 0.5°C (absolute)

Power voltage: 0.1 V (resolution)

Drawn current.

Monitoring:

14 bits RISC Microcontroller

Back-lit 4×20 LCD screen

Command by 2 push-button pad.

Protected Access by 4 digit confidential code

Data back-up in case of power failure (sampled volume and parameters).

Memory capacity:

1Mbytes Flash memory (Data back-up in the event of power failure).

Environnement :

0°C to $+45^\circ\text{C}$ / 10-90 % relative humidity.

Protection rating : IP54.

Sound level (dBA): < 45

Easily decontaminable

Conforme aux normes CEM EN 55022 et CEI 61000-4

Boîtier :

Polycarbonate housing. L x l x h : 340 x 190 x 300 mm.

Weight: $< 7 \text{ kg}$

Solid lightweight housing with carrying handle.

Shock, vibration and drop resistant

Power supply :

2 options: Mains 230V or lead battery 7Ah

In case of battery power supply: battery life = 6 hours, Integrated battery charger.

Configuration and data download:

Data transfer via RS232C cable serial link or by modem / GSM. (19200 Bauds, 8bits, 1 stop).

PA1000 Turbine is supplied with:

- 230 V Power cable
- Serial link cable
- Calibration certificate
- **PAView** Software
- User manual

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