

AEROSOL SAMPLER

PA 300 / 1000 / 2000

○ FILTER SAMPLING OF AIRBONE AEROSOLS

□ APPLICATIONS

- Solid particle sampling for analysis of :
 - radioactivity
 - weight contents
 - chemicals
 - pesticides
 - asbestos
- Monitoring in the workplace :
 - Industry
 - Hospitals
- Interventions on radiological incidents
- Expertise



PA2000 with a 140 mm diam filter

- In situ sampling on filters, followed by laboratory analysis.
- 4 instruments are proposed:
 - PA 300**, 300 l.h⁻¹ . battery powered, 8 hours autonomy,
 - PA 1000**, 1.5 m³.h⁻¹ . battery powered, 6 hours autonomy,
 - PA 1000T**, 1.5 m³.h⁻¹ . centrifugal pump, battery powered, 8 hours autonomy,
 - PA 2000**, 2 m³.h⁻¹ .mains powered.
- 3 instruments equipped with efficient pumps receiving standard filters including membranes with high pressure drop.
- 1 instrument equipped with a centrifugal pump for silent operation.
- Numerous sampling heads available, easily interchangeable (diameter 47 to 140 mm).
- 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.
- Conforming to the NF M 60-760 and IEC 61172 standards.

Specifications



AEROSOL SAMPLER PA 300 / 1000 / 2000

SPECIFICATIONS

Sampling media:

« pink », « yellow » or « blue » paper filter,
fiberglass, membrane,
Activated carbon cartridges.

Sampling head :

Standard diameters 47, 78, 90 and 140 mm
Sub standard diameters allowed
Sintered bronze filter support for homogeneous sampling
Closure by screw ring,
Adjustable angle (45° or 90°)
Displacement of the sampling media allowed

Sampling pumps :

	PA300	PA1000	PA1000T	PA2000
Pump	Rotary vane	Diaphragm, Vibrating	Centrifugal	Diaphragm, Vibrating
	12 V DC	12 V DC.	12 V DC.	230 V AC.

Sampling flow rate:

Nominal flow adjustable from 30% to 100% of the maximum value by the *PaView* monitoring software, available from www.algade.com

	PA300	PA1000	PA1000T	PA2000
Factorysetting	300L.h ⁻¹	1.0m ³ .h ⁻¹	1.5 m ³ .h ⁻¹	2m ³ .h ⁻¹
Max. Value	400L.h ⁻¹	1.6m ³ .h ⁻¹	1.6 m ³ .h ⁻¹	3m ³ .h ⁻¹

Adjustment to ± 0.5% of the nominal flow
Regulation every 36 seconds.
Tolerance on the measurement of the sampled volume
($\Delta V/V$) < 0.8%

Programming :

Weekly programming with a daily operational range.

Parameters monitored :

Temperature: accuracy 0.5°C (absolute)
Power voltage : 0.1 V (resolution)
Power consumption

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 the event of power failure (sampled volume and parameters).

Memory capacity:

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

Environment :

0°C to +45°C / 10-90 % relative humidity.
Protection rating: IP54.
Sound level: < 55_{PA300} / 52_{PA2000} / 35_{PA1000T} / 60_{PA2000} dBA
Compliant with standards CEM EN 55022 and CEI 61000-4

Housing :

	PA300	PA1000	PA1000T	PA2000
Height	190 mm	300 mm	300 mm	300mm
Weight	5 kg	7 kg.	7 kg.	6 kg

Power supplies :

PA300 : Lead Battery 8 hours discharge
Integrated battery charger
PA1000 : Lead Battery 6 hours of independent operation
Battery charger is integrated
PA1000T : Lead Battery 8 hours of independent operation
Battery charger is integrated
PA2000 : Mains 230 V single phase + ground, 100W.

Configuration and data download:

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

The PA 300 / 1000 / 1000T/ 2000 instruments are supplied with :

- 230 V Power cable ,
- Serial link cable,
- Verification certificate.
- *PaView* Software

References:

Two references are mandatory :

1 -Type of instrument

PA300 / 300 L.h⁻¹ / Battery / 8 hours discharge P-531-100
PA1000 / 1.0 m³.h⁻¹ / Battery / 6 hours discharge P-531-101
PA1000T / 1.5 m³.h⁻¹ / Battery / 8 hours discharge P-531-104
PA2000 / 2 m³.h⁻¹ / Mains power supply P-531-102

2 -Filter media

Filter dia 47 mm P-531-110
Filter dia 90 mm P-531-111
Filter dia 140 mm P-531-112
Cartridge P-531-113

3 -Accessories:

45° elbow P-531-114
90° elbow P-531-115
1,50m Filter elevation kit P-531-131
Buzzer (signals operating faults) P-531-121
Additional battery for PA1000 M-531-117
60% additional capacity + 1,5 Kg
Tube for filter displacement M-570-111
Up to 10 m according to sampler and medium

Other accessories on request