

SAMPLING
SOLUTIONS

MEGA SYSTEM

CALIBRATION
& METROLOGY

A1-AIRCAL

- Medium flow cells
(10 : 50 L/min)
- High flow cells
(100 : 600 L/min)
- High precision sensors
- Flow measurement
under actual and
normalized conditions



A1-Aircal_REV00 ENG_07/2020



A1-AIRCAL

The **digital flow calibrator A1-AIRCAL** checks the calibration of the principle parameters measured by the samplers (**pressure, flow and temperature**) using the **Venturi principle effect**, whereby "the pressure of a fluid current increases with decreasing speed".

Two different cells, for medium and high flow, can be connected to the instrument to verify both **PM₁₀ /PM_{2,5} sequential samplers and high volume samplers for micro-pollutants and fine dust**.

The measuring cell fittings are compatible with Mega System sampling heads.

This unit is unique on the market, as it has digital sensors for **differential, static pressure and barometric pressure**. It also hosts a highly precise integrated temperature sensor.

These features ensure increased accuracy and stability of the calibrator readings.

A1-AIRCAL allows traceability of all stored measurements, which may be downloaded via USB port directly onto a Pen Drive.

TECHNICAL FEATURES

- Independent measurement of differential, static and barometric pressure values
- Measurement of measuring cell temperatures
- Indication of flow under actual conditions and normalized conditions

TECHNICAL SPECIFICATIONS

• INTERFACE AND DATA ARCHIVING	
Display	LCD Alfanumerico (16x2)
Polyester keyboard	
Interface	USB (on Pen Drive)
• ENVIRONMENTAL CONDITIONS	
Temperature	0 °C ÷ +45 °C - 95% UR
• ENERGIA	
Power	NI MH internal rechargeable battery
Battery	Input 230 Vac – 50 Hz Output 12 Vcc – 0,7 A
• FEATURES	
Weight	550 g
• SUPPLIED WITH	
Hard-shell protective carrying case, holds both cells	
Connection cable	
Technical manual	
Test report	

• VENTURI CELLS		
	Flow Accuracy	Temperature Accuracy
Medium flow	10 – 50 L/min 1% f.s	0 ÷ +60 °C 1% ± 0,2 °C
High flow	100 – 600 L/min 1% f.s	

• PRESSURE SENSORS			
	Range	Resolution	Accuracy
Differencial	0 ÷ 200 mmH ₂ O (0 ÷ 200 Pa)	0,02 mmH ₂ O (0,1 Pa)	± 1%
Static	-1000 ÷ 1000 mmH ₂ O (-10.000 ÷ 10.000 Pa)	1 mmH ₂ O (1 Pa)	± 1%
Barometric	800 ÷ 1100 mbar	0,1 mbar	± 2 mbar