



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



CARE FOR THE  
ENVIRONMENT



# A1-AIRCAL

The digital flow calibrator, model 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 PM<sub>10</sub> /PM<sub>2,5</sub> sequential samplers and high volume samplers for micro-pollutants and fine dust.

The measuring cell fittings are compatible with Mega System sampling heads while adapters are available for other brands

This unit is unique on the market, as it has digital sensors for differential pressure, 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.

## MAIN FEATURES

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



## TECHNICAL SPECIFICATIONS

### Interface, Data Archiving

Display	Alphanumeric LDC (16x2)
Polyester keyboard	✓
Interface	USB (Pen Drive)

### Environmental Conditions

Working Temperature Range	0 °C ÷ +45 °C - 95% UR
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### Energy

Power	Input 230 Vac – 50 Hz Output 12 Vcc – 0,7 A
Battery	Internal, rechargeable
Battery charger	Built-in

### Features

Weight	550 g
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### 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.	0 ÷ +60 °C / 1% ± 0,2 °C

### Pressure Sensors

	Range	Resolution	Accuracy
Differential	0 ÷ 200 mmH <sub>2</sub> O (0 ÷ 200 Pa)	0,02 mmH <sub>2</sub> O (0,1 Pa)	1%
Static	-1000 ÷ 1000 mmH <sub>2</sub> O (-10.000 ÷ 10.000 Pa)	1 mmH <sub>2</sub> O (1 Pa)	1%
Barometric	800 ÷ 1100 mbar	0,1 mBar	± 2 mbar