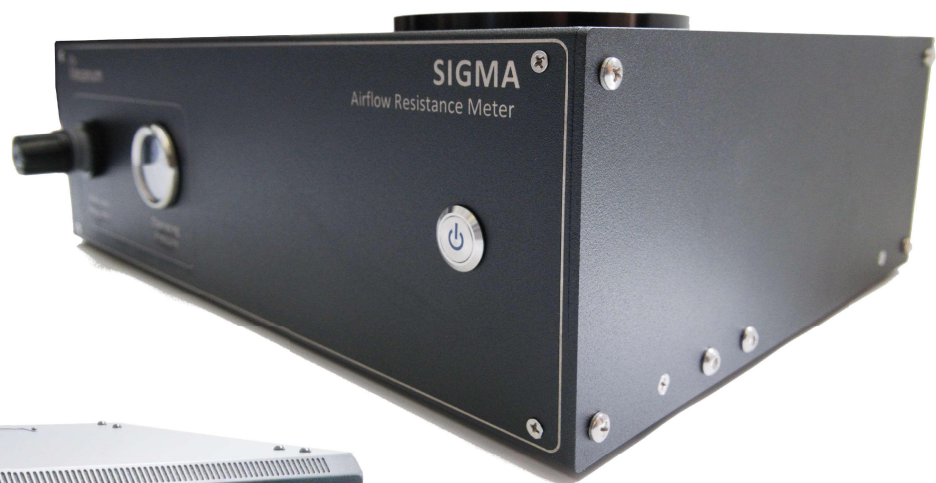


# SIGMA

## Airflow Resistivity Meter

ISO 9053 and ASTM C522-03

Distributed & Maintained by



Mecanum's airflow resistivity meter is designed to measure specific airflow resistance, airflow resistivity, airflow resistance and airflow permeability of acoustic materials (e.g. porous, fibrous and resistive screens). It can be used for acoustic material characterization and quality control.

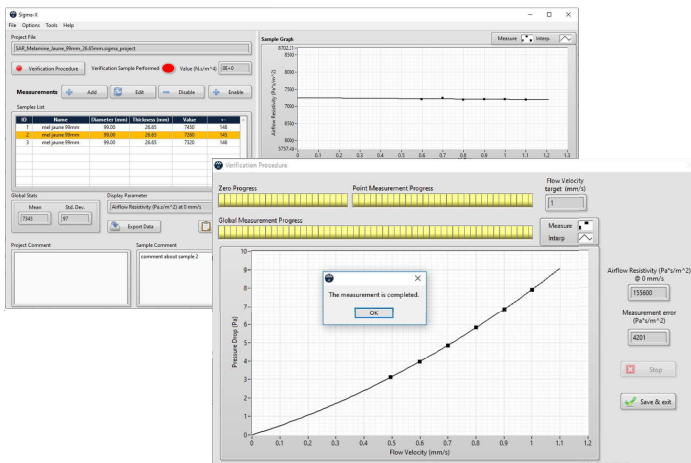
## SPECIFICATIONS

### Test Bench

- Integrated high precision mass flow controller
- Integrated high precision pressure transducer
- Sample holders (44.44 and 100 mm diameter)
- Adaptor for resistive screens, fabrics and films
- Set of grids and rings to support sample
- Certified verification sample

### SIGMA-X Software

- Automatic airflow control
- Calculates specific airflow resistance, resistivity, resistance and permeability according to the direct method described in ASTM C522-03 and ISO 9053
- Calculates the indicators at 0.5 mm/s (standard) and 0 mm/s (static value)
- Reports generation



### OPTIONAL ACCESSORIES

- Circular cutter & porous material slicer (available in 29, 44.44 and 100 mm diameter)
- Enclosure for harsh environments
- Air compressor
- Custom sample holder

## TECHNICAL DATA

### Test Bench

- Dimensions: 432 (L) x 370 (W) x 135 (H) mm
- Power supply: 100-240 VAC / 50-60 Hz / 50 W
- Operating temperature: 10°C to 40°C
- Flow control: from 0.5 mm/s to 100 mm/s depending on sample holder diameter
- Differential pressure sensor: from 0 to 25 Pa
- Communication: USB 2.0 type A

### Sample Holder

- Sample diameter: 44.44 mm and 100 mm
- Maximum sample height: 100 mm
- Material: CNC machined aluminum, black anodized

### MEASURING RANGE

- Specific airflow resistance: 10 to 110000 Pa.s/m
- Airflow resistivity: 400 to  $4.6 \times 10^6$  Pa.s/m<sup>2</sup>
- Airflow resistance: 1275 to  $1.4 \times 10^7$  Pa.s/m<sup>3</sup>
- Airflow permeability:  $3.9 \times 10^{-12}$  to  $4.8 \times 10^{-8}$  m<sup>2</sup>

All those measurements are for a sample of 100 mm diameter and 25.4 mm thickness.

### SPECIAL REQUIREMENT

The SIGMA system requires clean and dry compressed air at a minimum pressure of 40 psi (276 kPa).

## WARRANTY & SUPPORT

All Mecanum characterization systems are covered by a one-year limited warranty and technical support. Valid only on manufacturing defects and does not cover damage due to abuse or improper use of the equipment.

Please note that the technical aspects of our equipment may be subject to change without notice