

### SVM-PoM: Measurement of Permeability

The Porosimeter PoM V1.0 is a measuring device for determining the air permeability of paraglider cloths and other technical cloths.

A microcontroller-operated pump generates a negative pressure at a measuring surface and keeps it constant. At the same time, the flow rate is measured and the volume flow is calculated from this.

The measured volume flow is displayed both in the physical unit of liters per



square meter and hour [ $l/(m^2h)$ ] and as “JDC time” to enable a direct comparison with conventional measuring methods.

Two different measuring probes are available for the measurements. The standard probe has a measuring area of 38.5 cm<sup>2</sup> and thus corresponds to the conventional measuring method. A smaller measuring probe with 20cm<sup>2</sup> enables measurements to be taken in

inaccessible places. The probe used can be selected via a switch on the device.

The air density is measured and shown on the display as an additional reference value.

### Features

- Measuring time: Approx. 15 seconds per measurement, regardless of porosity (and therefore much faster than conventional porosimeters)
- Measuring probes: Two test areas: 38.5 cm<sup>2</sup> and 20 cm<sup>2</sup>, ideal for different screen sizes.
- Adaptation: Strong neodymium magnets facilitate mounting
- Volume flow measurement: Output of the volume flow in the physical unit [ $l/(m^2h)$ ] and in “JDC times”
- Display: Color LCD display for clear and simple presentation of measured values
- Additional sensors: Integrated barometer and temperature sensor for density calculation
- Power supply: Mains operation, optional battery supply

## Operation

1. Plug in the measuring probe and set the “Probe” toggle switch to the probe size used.
2. Place the counter plate on the inside of the cloth and place the measuring probe from the top. The counter plate is held by strong magnets and presses the cloth securely against the rubber seal.
3. The device registers the pressure surge caused by the installation and starts the measurement.
4. The pressure and flow rate are shown on the LCD display. As soon as the selected negative pressure is stable, the measured values are displayed in green and can be read off. Once the measured values have been stable for 20 seconds, the device ends the measurement and displays the last values.
5. If a measurement is to be interrupted, the probe can simply be opened. The device recognizes the interruption based on the pressure and ends the measurement.

## Areas of application

- Paraglider manufacturers and check operations
- Balloonists
- Materials science
- Outdoor and expedition equipment
- Aviation industry
- Research and development
- Filter technology

## Technical Data

Measurement range	
Volume Flow	0,05 – 4 l/(m²h)
Standard time („JDC-time“)	15-2000s
Probes	38,5 und 20cm²
Pressure setpoint	-100Pa bis -1000Pa (Standard für Gleitschirme: -1000Pa)
Accuracy of pressure control	+/- 2% vom Vorgabewert
Powersupply	
External supply	Input: 230V AC Output: 24V DC
Optional internal battery	24V DC
Environmet	
Temperature	5° C...50° C
Humidity	0...95%, non-condensing
Mechanical Data	
Housing	25 x 25 10cm
Weight	3.3kg