



Airflow Resistance Measurement System

Nor1517A

Applications

Typical applications are:

- quality control in production process
- testing in research & development

With the use of the height-adjustable clamping device and adapters to fit, various sized test material can be applied.

Features

- Fast and accurate measurement and readout of measurement results
- Accepts test material of various form & size
- Easy setup & use
- Large dynamic range of measurement
- Measures at 2 Hz



Introduction

The quantity airflow resistance is one of the most important parameters for the description of porous materials. A low value indicates little resistance for air streaming through the material and a high value indicates that the material is closer to air-tight.

The Nor1517A system measures the airflow resistance in porous materials according to ISO9053/DIN EN 29053 (DIN52213).

The Nor1517A system is based on the dynamic principle. An AC motor driven piston produces a oscillating movement causing an alternating air-flow of frequency 2Hz into a cylindrical tank and through the test material. The pressure modulation inside the cylinder are measured by a condenser microphone connected to a sound analyser using the 2Hz 1/3 octave band on the sound level meter Nor140. The specific airflow resistivity is indicated on the meter directly in Pa s/m. The measurement results may also be stored in the instrument memory for further use/documentation.

Measurement

The sound level meter Nor140, included in the styem, is used for measuring the two hertz sound pressure level in the test vessel. Calibration is performed first with the use of a calibration disc. Then, the sample is mounted, and by offsetting the normal calibration and switching the display to show linear units, the measurement is done. The instrument may display the numeric value of the specific airflow resistance directly from the 2 Hz band. The unit is Pa·s/m.

Specifications

Function: Measure the specific airflow resistance in Pa s/m, according to ISO 9053 (1991): Acoustics – Materials for acoustical applications – Determination of airflow resistance. Related quantities as airflow resistance and airflow resistivity may also be measured.

Measurement range: 10 Pa s/m to 30000 Pa s/m, up to 200 000 Pa s/m when correcting for non-linearities.

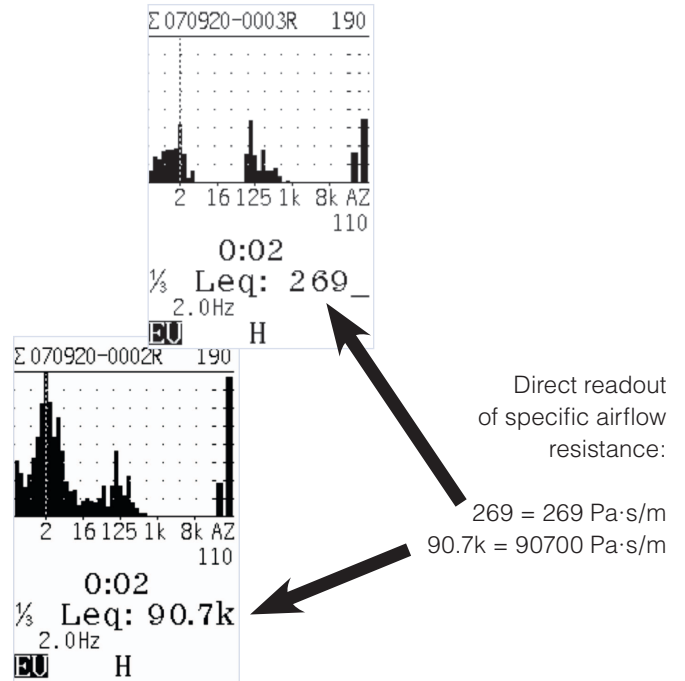
Airflow speed: 0,5 mm/s and 5 mm/s (r.m.s.) selected by the stroke 2,8 mm or 28 mm

Diameter of test area: 100 mm

Overall dimension (WxDxH): 590 mm × 290 mm × 640 mm

Power supply: 230 V/50 Hz (or 110 V/60 Hz – option US)

Weight: 19 kg



Accessories included

- Calibration disc
- Sample holder 1517A/03
- Sound level meter Nor140 with microphone, sealing device and 1/3 octave filters

Accessories

Norsonic may deliver mounting devices for test materials.

Ask the factory for special needs

Distributor: