

# KES-F8

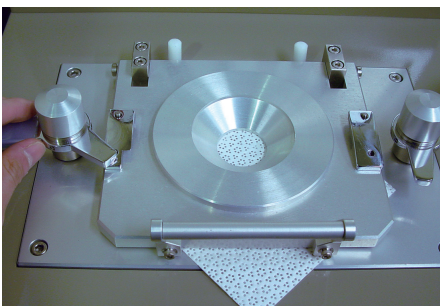
## Air Permeability Tester

The KES-F8 Air Permeability Tester is designed to quickly and accurately measure the breathability and permeability of a wide range of samples, from those with high permeability, such as pantyhose, to those with low permeability, such as synthetic leather.

Samples can be mounted in just a few seconds using the handles, and measuring operation is also incredibly simple. Measurement data is displayed on a digital panel meter, which prevents users from misreading the data.

### Measurement Sample Example

- Gauze
- Pantyhose
- Synthetic leather
- Textile
- Cosmetic cotton
- Tissue paper
- Sanitary product
- Socks, stockings
- Underwear
- Insulation material



## FEATURE

### ● Quick and highly accurate measurement using the constant ventilation method

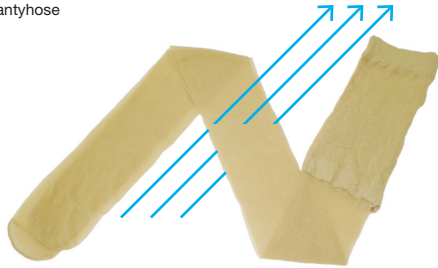
The KES-F8 allows measurement of ventilation resistance. Compared with commonly used measuring methods, the KES-F8 is capable of highly accurate measurements in just a short amount of time. In addition, values can also be obtained with minute amounts of ventilation, which measurement conditions are similar to ventilation of clothing worn.

## MEASUREMENT DATA

### Ventilation resistance R (kPa·s/m)

Smaller values refer to higher breathability and permeability

Ex.: Pantyhose

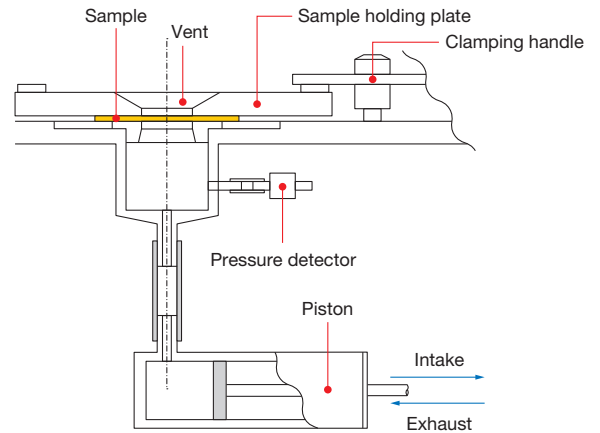


**Product A**  
0.01592kPa·s/m

**Product B**  
0.04813kPa·s/m

**Product A has better breathability and permeability than B.**

## MEASUREMENT MECHANISM



The KES-F8 sends air at a constant flow rate to the sample through the movement of its plunger and cylinder piston. Air can be either discharged through the sample to the atmosphere or sucked in from outside. The pressure when discharging or suctioning air is detected, and the ventilation resistance of the sample (R) is calculated.

## KES-F8 Air Permeability Tester

<b>Dimensions/Weight (approx.)</b>	Measuring unit: W330 × D495 × H430 (mm) / 25 kg
<b>Power source</b>	100 VAC, power consumption: 40W Max.
<b>Measurement environment temperature and humidity</b>	20 to 30°C / 50 to 70% RH. (No condensation.) Temperature and humidity should be kept constant during measurement. (Standard temperature and humidity conditions: 20°C / 65% RH) *The instrument should be located to minimize influence from wind or vibrations.
<b>Pressure sensor</b>	Semiconductor-type differential pressure gauge
<b>Measuring method</b>	Constant ventilation method (measuring ventilation resistance)
<b>Pressure output sensitivity (Full scale)</b>	2000 Pa (with standard measurement) 200 Pa (with high-sensitivity measurement)
<b>Pressure accuracy</b>	±0.5% of full scale
<b>Max. ventilation resistance (R)</b>	25 kPa·s/m (with standard measurement)

<b>Piston speed</b>	2 cm/sec, 0.2 cm/sec (switchable)
<b>Ventilation</b>	4 cc/cm <sup>2</sup> /sec (at 2 cm/sec) 0.4 cc/cm <sup>2</sup> /sec (at 0.2 cm/sec)
<b>Vent area</b>	2π cm <sup>2</sup>
<b>Specimen size</b>	Dimensions: 50 × 50 to 100 × 100 (mm) (standard) Thickness: 1 mm (max.) *Other specimen sizes are able to be used with optional accessories.

### Optional Accessories

- Vent pressing plate (20 π cm<sup>2</sup>, 0.2 π cm<sup>2</sup>) vent sizes are variable.
- Attachment provided for thick samples.
- \*Please contact us for more information.

**⚠ Precaution** For safety use, please read the operation manual / the instruction carefully and thoroughly before using the tester.

Specification details recorded here are subject to change without notice. We appreciate your understanding.

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