



VenturiCal

Air flow calibrator for High and Low Volume Samplers

Product Information

Digitel VenturiCal

The Digitel VenturiCal is a Venturi-type flow meter designed according to ISO 5167. It is used for flow calibration in Digitel High and Low Volume Aerosol Samplers, including models like the DHA-80, DH-77 and DPA-14. The battery-powered operation mode ensures easy mobile application, while convenient handling allows for efficient and precise calibration procedures.

Design

The VenturiCal consists of two main components: the probe and the control unit. The type of probe depends on the required flow (either High Volume or Low Volume), the control unit is the same for all flow rates. This means that the same control unit can be used with different probes.

The VenturiCal features an intuitive touch display that provides real-time measurements of flow rates under both ambient and standardized conditions. Users can freely select standard parameters to customize their readings.

An integrated calibration routine allows certified laboratories to calibrate the instrument easily and precisely.

The pressure difference is measured directly at the Venturi tube and the signal is transmitted digitally eliminating the need for long pressure tubes.

Operation

The VenturiCal probe is mounted at the inlet of the sampler, either directly on a sampler in the field housing or above the roof of the measuring cabin. The probe is connected to the control unit and the calibration routine of the sampler is started.

Calibration is possible for all types of Digitel samplers, even old units referring to mm-scale can be calibrated with the semi-automatic routine of the sampler and the mm-display of the VenturiCal.

For the DPA-14 and DHA-80 with the FollowFlow option an automatic calibration routine is possible. An additional cable between the control unit and the sampler must be installed and the calibration is performed automatically. Additionally, once the VenturiCal is plugged to the sampler, its batteries are charged.

The VenturiCal turns off when not in use, maximizing battery life. For measurements outdoors, extra long cables are available.

KEY FEATURES

- ◆ Venturi flow meter for volume flow calibration
- ◆ For High and Low Volume Samplers
- ◆ Flow range 15 - 50 l/min and 200 - 600 l/min,
- ◆ Customized flow rates on request
- ◆ Battery operation mode, rechargeable battery
- ◆ Easy software guided calibration
- ◆ Certificate from DAkkS-certified laboratory available

Part Overview



Cases



Technical Data

Flow rate range	200 - 600l/min (High Volume Sampler) 10 - 50l/min (Low Volume Sampler)
Operating temperature range	-20° to 50°C
Operating pressure range	600 - 1100 hPa
Differential pressure sensor	Span repeatability: 0.5 % of the measured value Zero point repeatability <0.1 Pa Expected measurement uncertainty (calibrated): < 1%
Accuracy of measured flow volume	< 1 % of reading (calibrated)
Material	Probe: Anodised aluminium (Ematal)
Dimension	Low Volume version in transport case: 30x23x17cm High Volume version in transport case: 45x40x20cm
Weight	Low Volume Sampler: Combined weight of calibrator: <1kg Weight with accessories in transport case: <3 kg High Volume Sampler Combined weight of calibrator: <1.5kg Weight with accessories in transport case: <5 kg

GOOD TO KNOW

- ◆ High-quality differential pressure sensor
- ◆ Swiss precision work
- ◆ No moving parts
- ◆ Silent operation
- ◆ Long battery life
- ◆ Displays actual and standard flow rates
- ◆ Includes transport case



Have a question? We'd love to help!

If you have questions about anything, please contact us and we will be glad to assist you.

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