

## DA-100®

DA-100® calibration unit is a high precision state-of-the-art electronic free-flying wheel anemometer with built-in display for airflow, airvelocity and temperature.

### The Digital calibration unit

The DA-100® is used for checking and recalibration of MAS-100® airsamplers like MAS-100®, MAS-100 Ex®, MAS-100 Eco® and MAS-100 ISO® (but not for MAS-100 CG® and instruments with firmware version < V2.62).

### Features and benefits

- Highly precise and reliable
- Air flow indicated in liters/minute
- Air velocity indicated in meters/second
- Results within only about 30 seconds
- Handy and easy-to-use
- Battery operation
- Including recognized calibration certificate

### Experimental procedure

The DA-100® digital anemometer is fixed onto an MAS-100® air sampler. The vane, which is positioned above the air inlet, rotates at a speed in response to the volume of the aspirated air. The values obtained are transmitted to an optical sensor. From the impulses, the sensor calculates the airflow in liters per minute and the air velocity in meters per second. The temperature of the air is measured by an integrated temperature sensor. The digital anemometer works on the principle of volume displacement and therefore displays volumes independently of pressure and temperature.

For highest precision the MAS-100®, MAS-100 Ex® and MAS-100 ISO® are calibrated by including the pressure into calculation, and by performing a 2-point calibration.

### Specification

Accuracy at 100 l/min	± 1.0%
Height	8.5 cm
Diameter	11 cm
Weight	0.9 kg
Vane bearing	Magnetic (patent pending)
Material	Anodized aluminum
Battery pack	9V battery
Display	Alphanumerical LCD display, 2 x 8 characters
Temperature sensor	± 2.0°C
Temperature resolution	± 0.5°C
Ambient conditions	Temperature 0 to 40°C, Humidity 0 to 80% r.h.
CE tests	EN 50081-1:1992 + EN 50082-1:1997, EN 50081-2:1993 + EN 50082-2:1995 + prEN 50082-2:1996
Contents of kit	1 Robust, handy carry case 1 DA-100® calibration unit 1 Calibration certificate 1 Silicone ring for 2-point calibration of MAS-100 / Ex / ISO 1 User manual for DA-100

### Literature

MEIER, R. and ZINGRE, H.: Qualification of air sampler systems:  
The MAS-100, Swiss Pharma 22 No. 1-2: page 15-21, 2000

### Ordering Information

Product	Merck Cat. No.	Pack contents
DA-100® anemometer	1.09228.0001	Digital anemometer for calibration of MAS-100®