

Automation of filter mass measurement
Highest Accuracy $d = 0,1 \mu\text{g}$
and repeatability of measurement $sd < 0,2 \mu\text{g}$



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Automatic balance **AK-6/510.4Y.F**

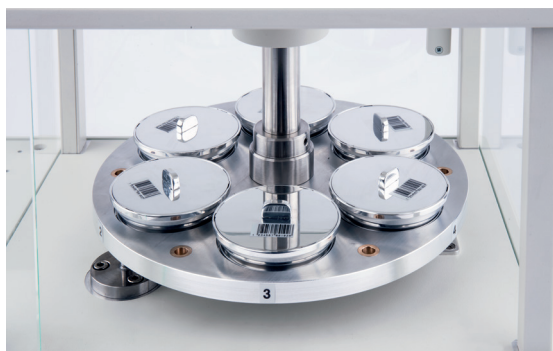
FAST AND STABLE MEASUREMENT OF FILTER MASS

AK-6/510.4Y.F

Automation of filter mass measurement Metrological Control



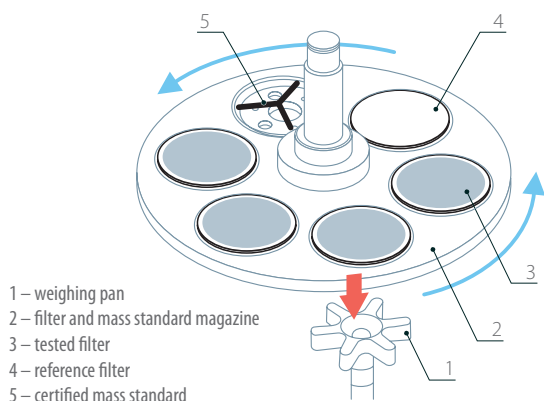
Each filter during conditioning is stored in a steel container.



The device features a magazine enabling concurrent test of 6 filters.



The filters are identified by a number being a combination of a digit code of a magazine position and EAN code of the weighing container (option).



Effective Weighing Analysis

Automation of the weighing cycle, thanks to the elimination of the human factor, is a guarantee of measurement repeatability impossible to be obtained in case of manual weighing. This is especially crucial when assessing emission of particulate pollutants, emitted by combustion engines (Euro 6 Standard). Additionally, it allows to carry out tests and research while maintaining measurement repeatability of $sd < 0.2 \mu g$.

Measurement of Ambient Conditions Inside the Chamber

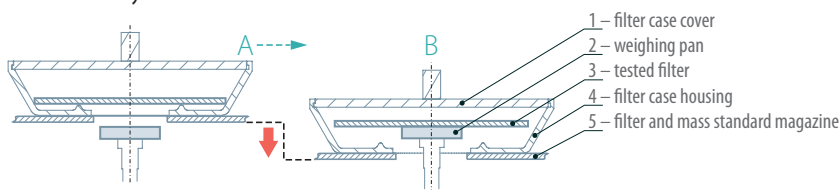
The automatic weighing system, AK-6 4Y.F, is equipped with a high-class thermo-hygro-barometer allowing to register ambient conditions in real time with the accuracy of $\pm 1 \text{ hPa}$ (pressure) / $\pm 1.8\%$ (humidity) / $\pm 0.1^\circ \text{C}$ (temperature).

Metrological Control

Correctness of weighing system operation may be periodically verified via a certified mass standard of weight similar to the weight of tested filters. The weighing system of AK-6 has been issued MWI certificate and approval of an accredited Measuring Laboratory (calibration certificate). Control aiming to specify whether the system operates correctly or not may be performed with an external adjustment mass, i.e. certified external mass standard, or a reference filter.

Filter Container

Filter case of special design allows to store filters in perfect conditions, it guarantees stable filter state in the course of transport. Each filter is stored and conditioned in a closed container protecting it against absorption of potential contamination from the air. Innovative solution enables weighing the filter directly in a container:



Dedicated Software

Ergonomic software supported by an independent RMCS application allows to manage time and comparison test plans of each filter or filter series. Summary reports and report components are defined by the system administrator.

AK-6/510.4Y.F

Maximum capacity [Max]	510 mg
Readability [d]	0.1 μg
Standard repeatability (5% Max)	0.2 μg
Standard repeatability (Max)	0.2 μg
Permissible repeatability (5% Max)	0.4 μg
Permissible repeatability (Max)	0.4 μg
Stabilization time	10 s
Adjustment	external
Electric compensation range	0 g ÷ +510 mg
Maximum filter qty per test cycle	6
Maximum filter size	$\varnothing 47 \text{ mm}$
Weighing pan dimensions	$\varnothing 16 \text{ mm}$
Display	5.7" colour graphic touch screen
Communication interfaces	USB (2×), Ethernet, RS 232, IN/OUT (4×), Wi-Fi®

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