

AP-12/12.5Y

Automatic Device for Multichannel Pipette Calibration

12 MEASUREMENTS AT THE SAME TIME

Highest precision and Excellent Measurement Performance

Designed **for Calibration and Testing** Laboratories

Short Calibration Time and Highest Repeatability of Results

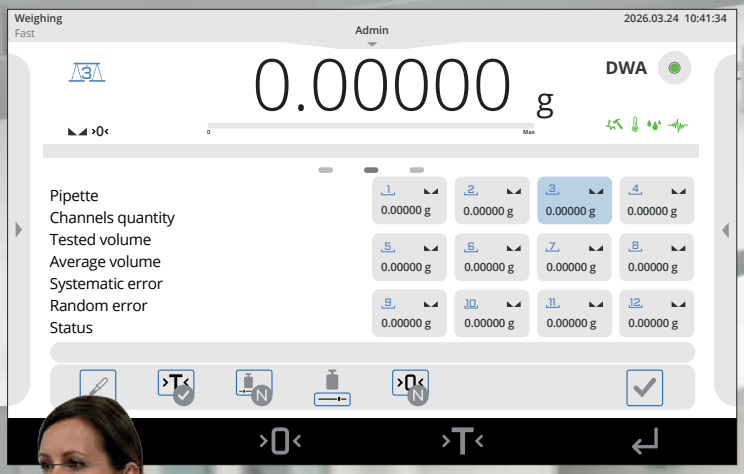
Readability of 0.01 mg and Maximum Capacity of 21 g per Channel

Reliable and Stable Results Compliant with Pipette Calibration Standards

Compact Design

The system features a **compact design** – the entire setup consists only of a balance and a terminal, without the need for additional modules or complex infrastructure. This makes it easy to configure, convenient to use, and quick to set up.

The solution combines advanced **functionality** with a **compact form**, **ensuring easy transport** and **fast workstation setup**, especially for mobile applications.







Mobility

The device is **designed for easy transport** between different workstations and laboratories. The balance, along with all necessary accessories, **can be transported in a dedicated transport box** equipped with wheels, ensuring convenient and safe movement of the entire set. The transport box also features an adjustable handle height, improving comfort and ergonomics during transport.

This solution allows quick deployment to any laboratory and on-site pipette calibration without the need to move laboratory equipment elsewhere. The robust transport box construction protects the device during transport and enables fast setup in a new location.

Balance Weight - Only 38 kg



Dedicated Table

Calibration can be performed on a standard laboratory table. However, a **dedicated table provides significantly greater measurement stability** and effectively **reduces the impact of vibrations** and external factors.

Its **ergonomic design** improves working comfort, especially during prolonged pipetting, while the well-organized workstation allows convenient arrangement of accessories and supports an efficient calibration process.

Dedicated Pump Set

The system is equipped with a dedicated pump for **simultaneous liquid suction** from all measuring channels. As a result, **all vessels can be emptied at the same time**, without the need to perform this operation separately for each one.

This solution significantly **improves workflow** and **shortens measurement time** when calibrating multichannel pipettes. Simultaneous liquid suction also increases user convenience and improves the overall flow of the calibration process.





Internal Automatic Adjustment

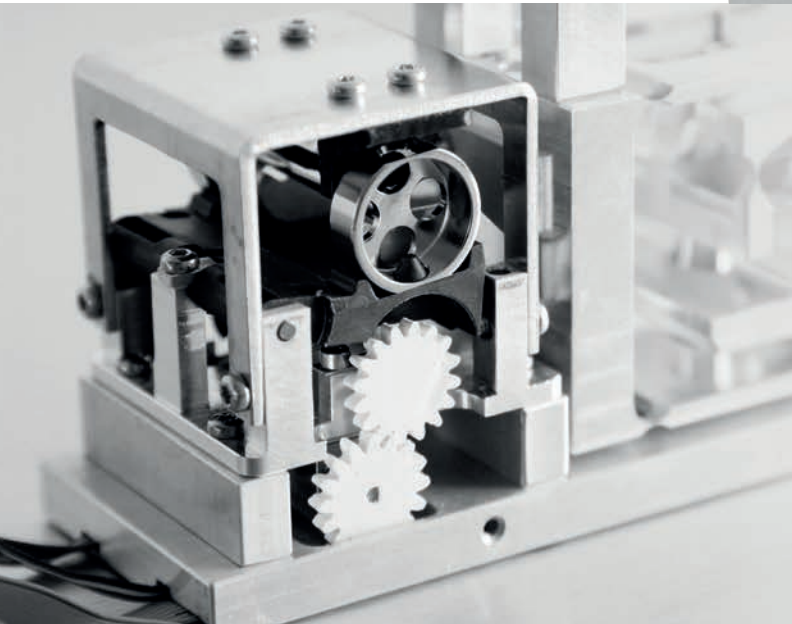
The device features an **automatic internal adjustment system**, ensuring fast and convenient maintenance of high measurement accuracy without user intervention.

External Adjustment

External adjustment **using a reference weight** is also possible for procedures requiring traceability to external metrological standards. In external calibration mode, each measuring module can be calibrated individually.

12 Adjustments at the Same Time





12 Independent Weighing Modules

The device is a **unique solution on a global scale**, combining 12 independent weighing modules in one compact design, all operating simultaneously. Each module offers a **readability of 0.01 mg**, enabling the highly precise measurements required for pipette calibration.

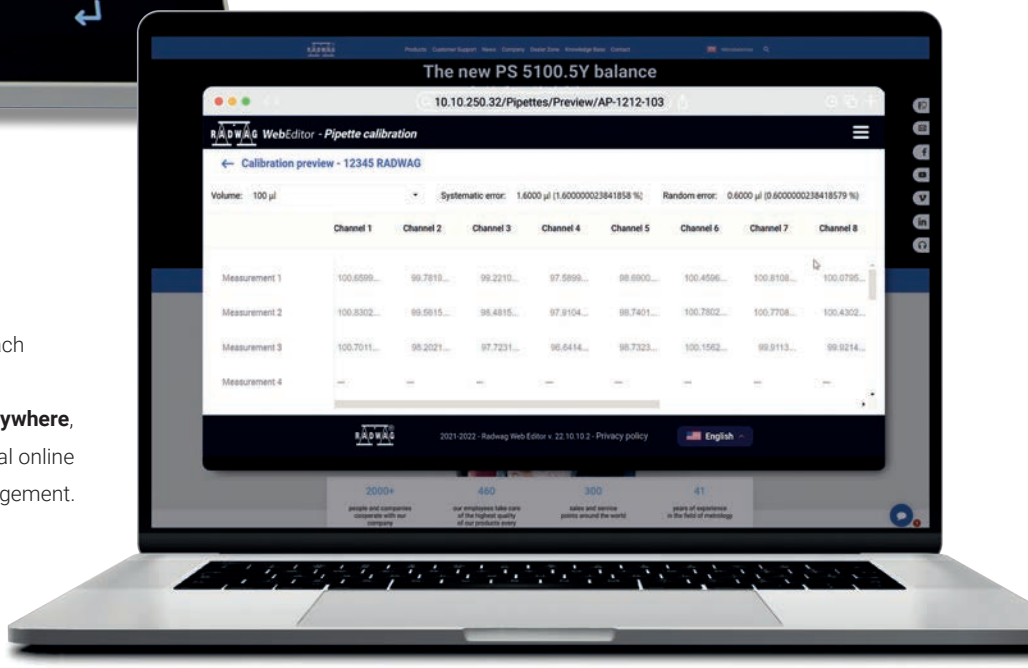
This combination of **multichannel measurement** and **high weighing resolution** in a single system represents a world-class level of technological advancement, while also delivering exceptional efficiency and a significant reduction in calibration time.



Simultaneous Measurement of all Channels

The system enables simultaneous measurement of all channels of a multichannel pipette, allowing **calibration to be performed for each channel at the same time**. Unlike traditional methods, where channels are tested individually, this approach significantly reduces the overall procedure time.

For a 12-channel pipette, this can mean up to a **12-fold increase in calibration** speed while maintaining high accuracy and repeatability, improving efficiency and enabling faster verification of a larger number of pipettes.



Live Results Preview and Database Storage

The system enables remote, **real-time monitoring of results**, with data available immediately after each measurement.

The calibration process can be observed from anywhere, while all results are automatically stored in a central online database, facilitating later analysis and data management.

Check the **AP-12/12.5Y** on **radwag.com**

	AP-12/12.5Y
Maximum capacity [Max]	21 g (per measuring channel)
Readability [d]	0.01 mg
Standard repeatability [Max]	10 µg
Standard repeatability [5% Max]	5 µg
Linearity	±0.03 mg
Adjustment	**internal (automatic)**, external
Stabilization time	4 s
Typical measurement time for a 12-channel pipette with constant volume, according to ISO 8655 (for d =10 µg)	5 min
Typical measurement time for a 12-channel pipette with variable volume, according to ISO 8655 (for d =10 µg)	15 min
Maximum volume	16 ml (per measuring channel)
Display	10” colour, touchscreen
Weighing pan dimensions	dedicated
Device dimensions W x D x H	638 x 432 x 216 mm
Dedicated transport box dimensions W x D x H	650 x 850 x 900 mm
Net weight	38 kg
Gross weight	80 kg
Communication interfaces	2×USB-A, USB-C, RS 232 (COM3), HDMI, Ethernet, Wi-Fi®, Hotspot
Power supply	Adapter: 100 – 240V AC 50/60Hz 1A Max; 15V DC 2,4A Device: 12 – 15V DC 1,6A max; 10 – 29W
Operating temperature	+10 – +40°C
Operating temperature change rate	±0,3 °C / 1 h (±1 °C / 8 h)
Relative humidity	20% – 80%
Relative humidity change rate	±1% / h (±4% / 8 h)

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