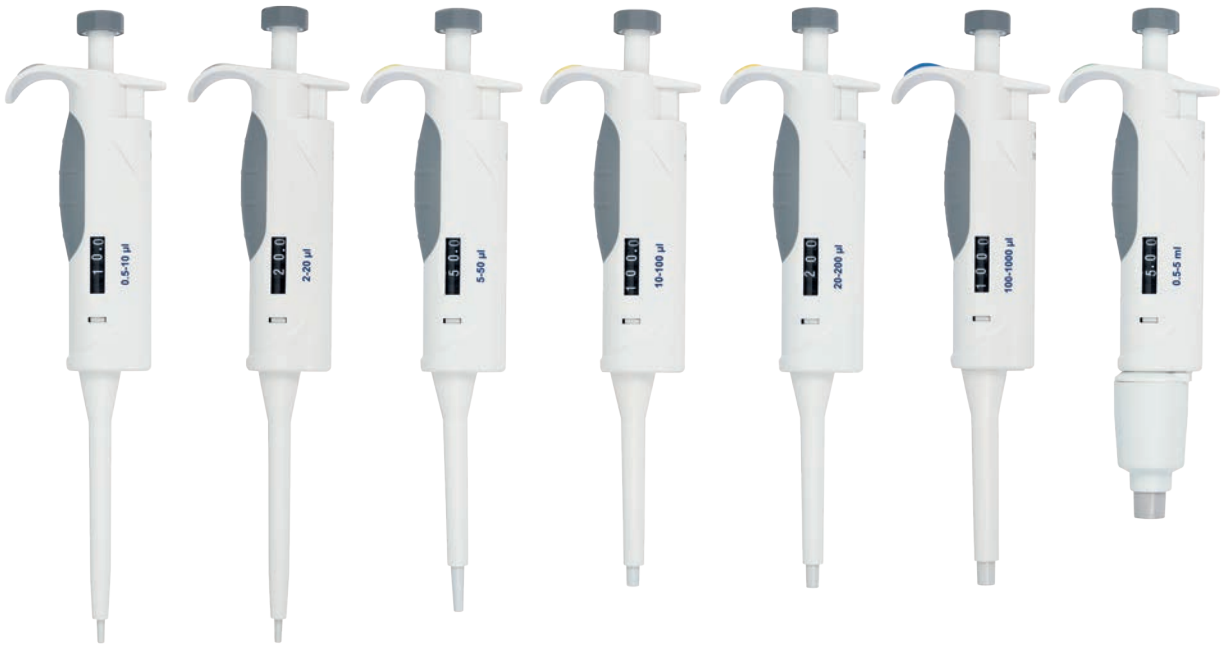
Pipette Calibration

Solutions for Single-Channel Pipettes

radwag.com



Pipettes



	RW8-101-20-9	RW8-102-20-9	RW8-103-20-9	RW8-104-20-9	RW8-105-20-9	RW8-106-20-9	RW8-107-20-9
Volume	0.5 µl ÷ 10 µl	2 µl ÷ 20 µl	5 µl ÷ 50 µl	10 µl ÷ 100 µl	20 µl ÷ 200 µl	100 µl ÷ 1000 µl	500 µl ÷ 5000 µl
Error of accuracy (systematic)*	2.5 % / 1.0 %	3.0 % / 0.9 %	2.0 % / 0.6 %	3.0 % / 0.8 %	2.0 % / 0.6 %	2.0 % / 0.6 %	2.0 % / 0.5 %
Error of repeatability (random)**	1.5 % / 0.8 %	2.0 % / 0.4 %	2.0 % / 0.3 %	1.5 % / 0.15 %	0.8 % / 0.15 %	0.7 % / 0.2 %	0.6 % / 0.15 %
Tips	10 µl	300 µl	300 µl	300 µl	300 µl	1000 µl	5000 µl

* Error determined as difference between the mean value obtained for a series of 10 measurements and the expected value.
** Error determined as standard deviation for the series of 10 measurements.



Pipettes calibration workstation

Pipettes calibration workstation is a complex solution characterised with excellent operation ergonomics, which guarantees precise measurements.

Additional, built-in anti-vibration table with a stone top prevents transmission of ground vibrations onto the balance, with this the stabilization time is significantly reduced. Due to separation of the table frame from the anti-vibration construction, the operator-generated vibrations are not transferred onto the balance.

Ambient conditions are monitored with use of a set of measuring probes: temperature, air and distilled water, humidity and atmospheric pressure. The probes monitor workstation's ambient conditions in an ongoing manner, this guarantees reliable weighing results.

Pipettes calibration process is supported by a PC software, "Pipettes", which software due to automation improves the procedure of calibration carried out using gravimetric method accordant with ISO 8655-6 standard. "Pipettes" PC software facilitates calibration reports generation, measurement results archiving, and complex pipettes management, compliant with ISO 10012 standard.



Balances intended for pipettes calibration

The highest measurement accuracy is ensured using microbalances and analytical balances of 5Y series, equipped with a special adapter for pipettes calibration. The adapter is characteristic for an evaporation ring which minimizes occurrence of errors in the course of pipettes calibration. Bothe the instruments, a microbalance and an analytical balance, can be used for performance of standard weighing processes. For this purpose, all the operator needs to do, is to disassemble the adapter.



Microbalance
MYA 21.5Y.P



Microbalance
XA 52.5Y.M.A.P



Analytical Balance
XA 82/220.5Y.A

Maximum capacity [Max]	21 g	52 g	82 g / 220 g
Readability [d]	1 µg	5 µg	0.01 / 0.1 mg
Minimum weight (USP)	2 mg	4.4 mg	8.2 mg
Weighing pan dimensions	ø26 mm	ø26 mm	ø 90 mm + ø 85 mm (option)*
Capacity	11 ml	11 ml	17 ml, 100 ml
Weighing chamber doors	Automatic	Automatic	Automatic
Display	10" colour touchscreen	10" colour touchscreen	10" colour touchscreen
Adjustment	Internal (automatic)	Internal (automatic)	Internal (automatic)
Communication interfaces	2×USB-A, USB-C, RS 232 (COM3), HDMI, Ethernet, Wi-Fi®, Hotspot	2×USB-A, USB-C, RS 232 (COM3), HDMI, Ethernet, Wi-Fi®, Hotspot	2×USB-A, USB-C, RS 232 (COM3), HDMI, Ethernet, Wi-Fi®, Hotspot

*option: ø68 mm with pipette calibration adapter XA100-2 + ø36 mm with pipette calibration adapter XA17-2

Wi-Fi® is a registered trademark of Wi-Fi Alliance®.

Characteristics

RADWAG pipettes are modern measuring equipment designed and manufactured in accordance with strict standards concerning manufacturing cleanliness and biodegradability of the product.

The pipettes represent a new line of the ‚liquid handling' product group, designed to quickly batch and transport liquids of small volume. They enable highly precise dispensing, and are characterized by ergonomic, solid design. The pipette mechanism ensures exceptional precision and repeatability with less intense pressure applied onto the push button.

All the pipettes are inspected for conformity with the requirements of PN-EN ISO 8655 standard regarding precise and repeatable dispensing. Each pipette is delivered with a test report featuring measurements results.

Calibration certificates, issued by the accredited calibration laboratory, are available on request.

Features

- Large and readable volume display that is fully visible during pipetting;
- Innovative soft grip preventing heat transfer to the pipette inside;
- Low pressure required while using the pipette reduces the risk of RSI;
- Simple click mechanism for changing pipette volume;
- Option of autoclaving the pipette in one piece (disassembling not required). Recommended autoclaving process: 15 minutes at 121°C temperature, 1.05 bar pressure;
- Tip ejector collar is made of PVDF which has a high chemical resistance (also at high temperatures) and low susceptibility to microorganisms expansion;
- Ultra UV resistance;
- Convenient in use tip ejector;
- Compatibility with majority of tips available on the market.

Scan the **QR** code
to **explore**
our **full pipetting solutions**

