



4Y Series Laboratory Balances



4Y Series Laboratory Balances

Outstanding quality, the highest accuracy and excellent throughput plus comfort of operation in advanced mass measurement processes of a professional class.

5.7" colour touch screen ensures perfect readability and clear information arrangement.

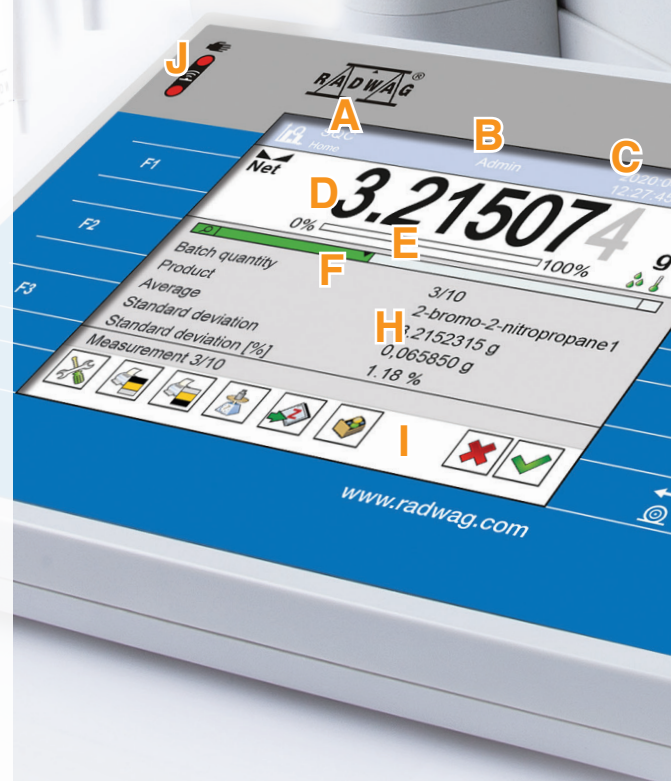
Intuitive menu is a guarantee for convenience, simplicity of operation and easy access to numerous applications and functions of the weighing instrument. Graphic interface offers screen customization option, the user can smoothly adapt it to his/her own preferences.

The modern processor is a promise of new possibilities when it comes to operation speed and short time of result stabilisation at a respective repeatability. Use of up-to-date production technology means maximum readability even in case of utmost unfavourable conditions.



Home screen

- A** Set working mode and profile
- B** Logged-in user info
- C** Date, time, connection, battery state etc.
- D** Weighing result window
- E** Load bar graph
- F** Checkweighing bar graph (thresholds)
- G** Ambient conditions pictograms
- H** Configurable additional information field
- I** Quick access buttons (editing option)
- J** Proximity sensors (operation optimization)





Reliable Adjustment System

Internal adjustment system guarantees the best accuracy, minimized linearity errors and reliable measurement results for the whole weighing range.

Smart Min Weight

Smart Min Weight assures automatic adjustment of range resolution to the measured mass and improves the value of the minimum weight parameter by 30%.

The highest repeatability and compliance with USP

The highest weighing accuracy and perfect repeatability plus compliance with USP requirements stand for a brand new mass measurement quality.

New Possibilities of Data Management

The scale's expanded memory enables weighing data to be stored in the form of advanced reports and images of time and statistical graphs.

Flexibility of Use

Wireless communication between the terminal and the weighing instrument facilitates operating the balance that is placed inside laminar flow hoods and fume cupboards.

Mobile Control

Standard Wireless Connection means possibility of transfer of data between the balance and a mobile device with iOS and Android system.

Data Safety

ALIBI memory is a guarantee of safety and automatic record of measurements, it also offers possibility to analyse the saved data.

	ULTRA-MICROBALANCES	MICROBALANCES	MICROBALANCES with enlarged weighing chamber	
MASS MEASUREMENT	 UYA 4Y PLUS d = 0.1 µg Max = 2.1 – 6.1 g  UYA 4Y d = 0.1 µg Max = 2.1 – 6.1 g	 MYA 4Y PLUS d = 1 – 10 µg Max = 0.8 – 52 g  MYA 4Y d = 1 – 10 µg Max = 0.8 – 52 g	 XA 4Y.M.A PLUS d = 1 – 5 µg Max = 6 – 52 g	 XA 4Y.M PLUS d = 1 – 5 µg Max = 6 – 52 g
PIPETTE CALIBRATION		 MYA 4Y.P PLUS d = 1 µg Max = 21 g  MYA 4Y.P d = 1 µg Max = 21 g	 XA 4Y.M.A.P PLUS d = 1 – 5 µg Max = 6 – 52 g	
FILTER WEIGHING	 UYA 4Y.F PLUS d = 0.1 µg Max = 2.1 g  UYA 4Y.F d = 0.1 µg Max = 2.1 g	 MYA 4Y.F PLUS d = 1 µg Max = 5.1 g  MYA 4Y.F d = 1 µg Max = 5.1 g		

ANALYTICAL BALANCES



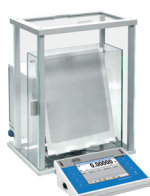
XA 4Y.A PLUS

d = 0.01 – 0.1 mg
Max = 52 – 520 g



XA 4Y PLUS

d = 0.01 – 0.1 mg
Max = 52 – 520 g



XA 4Y.F

d = 0.01 mg
Max = 52 – 110 g

4Y Series

Extensive Functionality

Fast range of in-built functions and working modes makes the 4Y balance a solution intended for advanced weighing processes.



Parts counting



Dosing



Checkweighing



Formulations



Statistics



Animal weighing



Differential weighing



Percent weighing



Statistical quality control



Autotest



Density determination



Pipette calibration



Filter weighing



Internal adjustment



GLP procedures



Automatic doors



Proximity sensors



Ambient conditions measurement



Movable fine range



Cooperation with titrators



Replaceable units



Multilingual menu

Micro Scale Measurement



Ultra-Micro and Microbalances

Advanced professional microbalances for fast and precise measurement of small mass with the highest accuracy and second to none repeatability.

Thanks to perfect weighing parameters these instruments are intended for the most demanding laboratory processes. They are offered in few variants different one from another in terms of functionality and the mechanical design of the weighing chamber.



UYA 4Y PLUS

$d = 0.1 \mu\text{g}$ | Max = 2.1 – 6.1 g

MYA 4Y PLUS

$d = 1 - 10 \mu\text{g}$ | Max = 0.8 – 52 g

- Cylindrical weighing chamber
- Automatic doors
- Automatic levelling



UYA 4Y

$d = 0.1 \mu\text{g}$ | Max = 2.1 – 6.1 g

MYA 4Y

$d = 1 - 10 \mu\text{g}$ | Max = 0.8 – 52 g

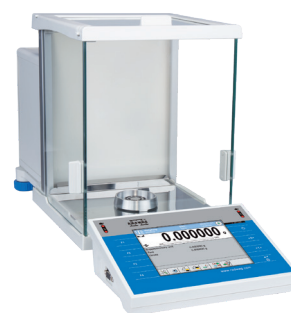
- Cylindrical weighing chamber
- Automatic doors



XA 4Y.M.A PLUS

$d = 1 - 5 \mu\text{g}$ | Max = 6 – 52 g

- Spacious weighing chamber
- Free access to the weighing pan
- Automatic doors
- Antistatic ionizer
- Automatic levelling



XA 4Y.M PLUS

$d = 1 - 5 \mu\text{g}$ | Max = 6 – 52 g

- Spacious weighing chamber
- Free access to the weighing pan
- Internal glass shelf (option)

Analytical Weighing



Analytical Balances

Highly precise and reliable analytical balances of perfect repeatability and measurement precision intended for advanced weighing processes in the laboratory.

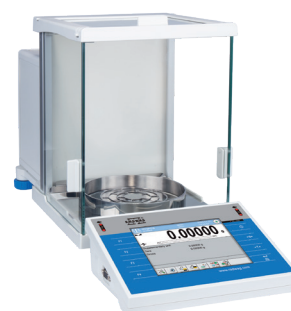
Spacious weighing chamber facilitates free access to a weighing pan and makes it convenient to weigh samples in laboratory vessels.



XA 4Y.A PLUS

d = 0.01 – 0.1 mg | Max = 52 – 520 g

- Spacious weighing chamber
- Free access to the weighing pan
- Automatic doors
- Antistatic ionizer
- Automatic levelling



XA 4Y PLUS

d = 0.01 – 0.1 mg | Max = 52 – 520 g

- Spacious weighing chamber
- Free access to the weighing pan
- Internal glass shelf (option)

Pipettes Calibration

Microbalances for Pipette Calibration

Intended for control of pipette volume performed using a gravimetric method in accordance with ISO 8655.

A special adapter equipped with an evaporation ring, which has been installed in a weighing chamber, reduces evaporation of the liquid and improves measurement accuracy.



MYA 4Y.P PLUS

d = 1 µg | Max = 21 g

- Cylindrical weighing chamber
- Automatic doors
- Automatic levelling
- Built-in adapter for pipette calibration



MYA 4Y.P

d = 1 µg | Max = 21 g

- Cylindrical weighing chamber
- Automatic doors
- Built-in adapter for pipette calibration



XA 4Y.M.A.P PLUS

d = 1 – 5 µg | Max = 6 – 52 g

- Spacious weighing chamber
- Free access to the weighing pan
- Automatic doors
- Antistatic ionizer
- Automatic levelling
- Automatic adapter for pipette calibration

Filters Weighing

Microbalances and Analytical Balances for Filter Weighing

Intended for filter weighing in processes of differential mass measurement. They enable determination of dust concentration with use of a gravimetric method.

Special design of the chamber and the weighing pan facilitates weighing of filters of different shapes and dimensions.



UYA 4Y.F PLUS

$d = 0.1 \mu\text{g}$ | Max = 2.1 g

MYA 4Y.F PLUS

$d = 1 \mu\text{g}$ | Max = 5.1 g

- Special chamber for filter weighing
- Automatic levelling



UYA 4Y.F

$d = 0.1 \mu\text{g}$ | Max = 2.1 g

MYA 4Y.F

$d = 1 \mu\text{g}$ | Max = 5.1 g

- Special chamber for filter weighing



XA 4Y.F

$d = 0.01 \text{ mg}$ | Max = 52 – 110 g

- Spacious weighing chamber
- Free access to the weighing pan
- Internal draft shield
- Pan for large size filter weighing

Ergonomics and Comfort of Operation



New, enlarged weighing Chamber

Spacious weighing chamber makes it convenient to weigh samples in laboratory vessels of various sizes. Large open-door clearance means easy access to the weighing pan from both sides.

Automatic Doors

System of automatic control of weighing chamber doors allows to define how wide the door is to be open. The system does not generate any vibrations that could affect the measurement.

Doors open/close function may be run touch-free upon assigning it to respective proximity sensors.



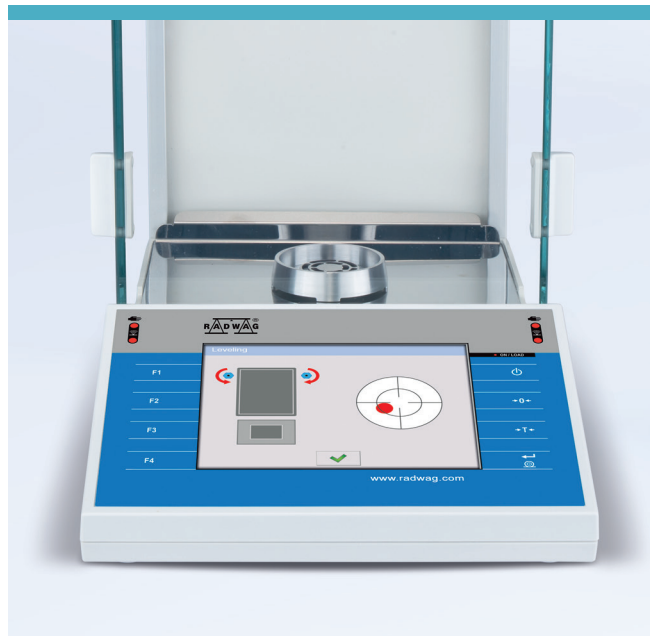
Levelling

The 4Y series balances feature solution enabling easy balance levelling and ensuring stability during the operation. The most advanced balances equipped with Reflex Level System provide fully automatic levelling process. The remaining models are offered with semi-automatic LevelSENSING system. Both solutions ensure high precision and can be controlled online.



Reflex Level System

Fully automatic levelling system is a guarantee of balance stability. The solution includes ground tilt test, whereas constant monitoring of the level protects the device against level deviation.



LevelSENSING System

LevelSENSING is a semi-automatic levelling system facilitating level adjustment via on-screen prompts, it provides information on deviation in accordance with GLP and GMP. The system measures ground tilt and performs constant monitoring of the balance level.

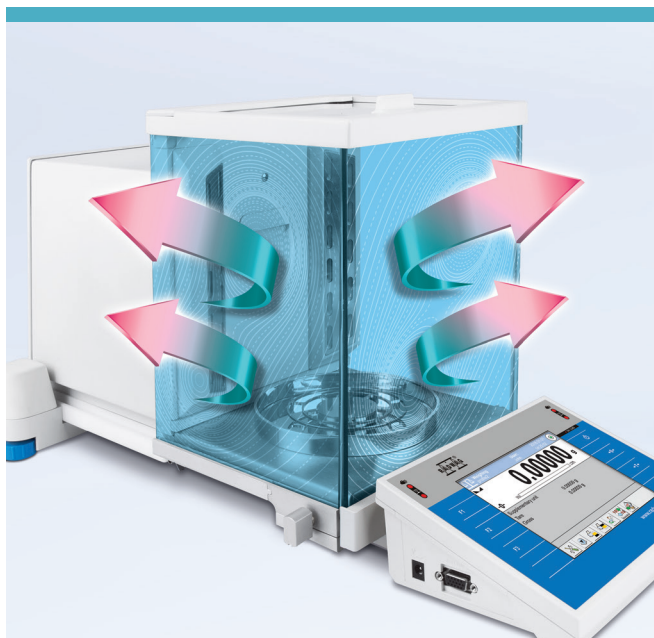
Touch-Free Operation

Two in-built proximity sensors offer touch-free access to selected operations. With this, number of actions to-be-taken by the operator gets reduced.

Each sensor can be assigned with any freely selected action (e.g. door open/close, taring, zeroing, etc.).

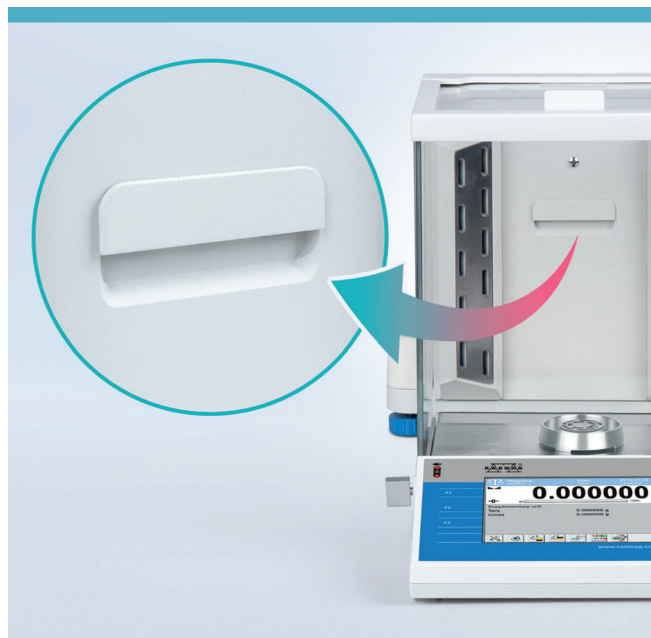


Innovative Functional Solutions



Fully Antistatic Weighing Chamber

Antistatic coating of the glass panes facilitates discharge of electrostatic charges from the weighing chamber. This solution effectively eliminates unfavourable effect exerted by the electrostatics onto the weighing result.



Innovative System of Pressure Equalization

Drastic change of pressure in the weighing chamber may be a cause of indication errors. Innovative solution of pressure equalization minimizes potential errors which guarantees stable measurement and correct indications.

Antistatic Ionizer

The antistatic ionizer, due to compensation of positive and negative ions, neutralizes electric charges inside the weighing chamber upon placing the sample in it.

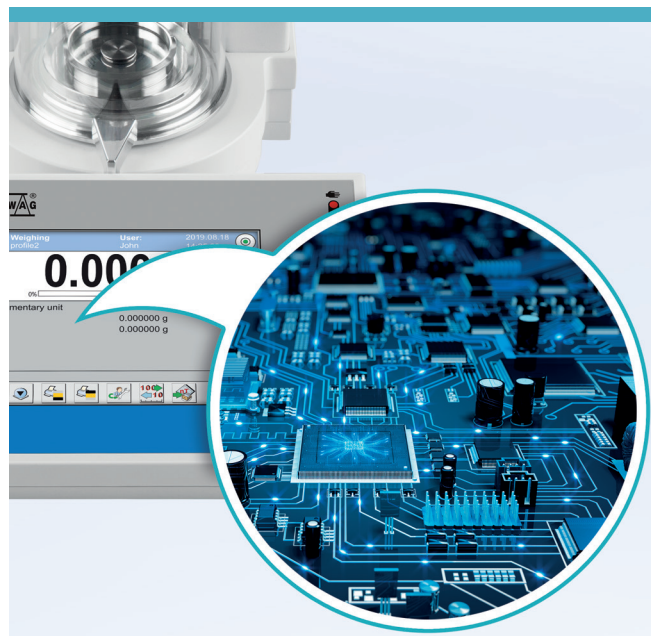
Ionizer operation is signalled via a LED diode.





Video-Guides and On-Screen Manuals

The 4Y series thanks to „Media“ module provides the user with a complete support when it comes to balance operation. Easy accessed context help makes operation of selected functions and applications easier.



New Technological Solutions

Cutting-edge technologies and numerous proprietary manufacturing solutions guarantee the top quality of electronic components which ensures reliability during everyday operation, accurate indications and perfect repeatability parameters.

Disassembly of the Weighing Chamber

Latch-type disassembly system enables uncomplicated and fast removal of panes, all this tool-free.

The system facilitates maintenance of chamber panes and components and makes it easier to keep the device clean even when using it intensively.

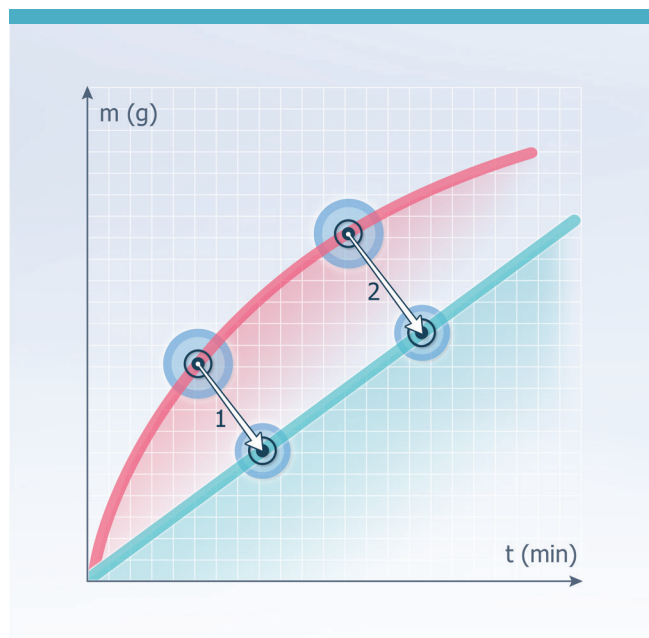


Optimization in the Laboratory



Internal Adjustment

Automatic adjustment is a guarantee of accuracy for every single weighing process. It takes place either in specified time intervals or as a result of temperature change. New schedule option enables users to plan adjustment time, type (internal, external) and mass standard using which the adjustment is to be carried out.



2-Point Adjustment System

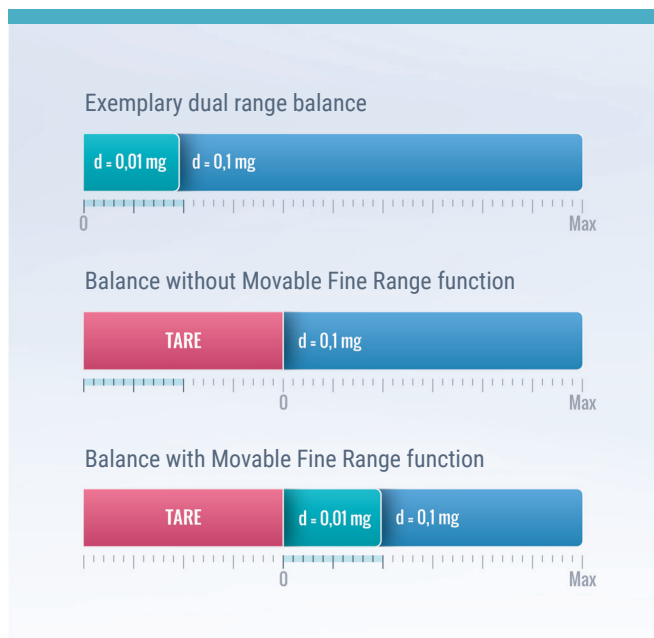
The new 2-point adjustment system guarantees the best accuracy, minimized linearity errors and reliable measurement results for the whole weighing range. It monitors accuracy of balance indications, ensuring precise weighing even at varying ambient conditions.

Measurement Speed and Precision

The 4Y balances have been equipped with a modern processor thus they offer perfect operation speed and short time of result stabilisation at the right repeatability.

Automatic control of weighing chamber opening ensures fast and easy access to the weighing pan. Now sample mass determination takes just a few seconds!





Movable Fine Range

Dual range balances of 4Y series feature Movable Fine Range function which regardless of the used tare ensures the highest accuracy of small sample weighing.

The function operation is fully automatic. With Movable Fine Range it is possible to measure weight of milligram samples in a container of several dozen grams



Load Bar Graph

The load bar graph presents in percent the amount of load in relation to the maximum balance capacity.

When sample mass exceeds the set threshold, Zoom function runs automatically, as a result a particular area is magnified and displayed within the whole width of the bar graph. This allows the user to observe sample mass changes clearly.

Monitoring of Ambient Conditions

Unique monitoring solution allowing to control ambient conditions in real time is realised using internal measuring sensors (in-built) and optional external sensors. Depending on the sensor type, the system monitors temperature, humidity pressure and air density.



Compliance with USP Conventions



Smart Min Weight

Smart Min Weight system provides automatic adjustment of screen resolution to the measured mass range and guarantees the best possible values of the minimum weight.



21 CFR Part 11 Compliance Module

The 4Y series balances are complaint with 21 CFR part 11 regulations and with provisions of EU GMP part 4, annex 11. They offer complete data protection and are equipped with a number of security and monitoring functions that control work of particular operators.

Compliance with USP Conventions

Solutions applied in 4Y balances guarantee the best accuracy of micro-scale measurement. Dedicated MSW application features programmable thresholds of weighing range start, wherein various tare loads are accounted for.



Minimum weight pictograms

Time of activity of the MSW certificate is specified and monitored by a microbalance program

Current MSW threshold value

Connection and Communication



Communication Interfaces

Functionality of the 4Y series balances is expanded via communication interfaces (USB, Ethernet, RS-232, Wi-Fi®, IN/OUT) enabling reliable and fast communication with external devices or portable data carriers.



RadConnect – Mobile Balance Control

RadConnect application ensures two-directional communication between the 4Y series balances and a mobile device with iOS or Android system.

It enables transfer of data from a balance (measurement result, statistical data, etc.) directly to a tablet or a smartphone. Using RadConnect it is possible to run tare or zero function remotely and to record the weighing results.

Wireless Communication

Wireless communication is an option thanks to which it is possible to place the terminal in 10-meter distance from the weighing chamber.

Battery power supply guarantees 8-hour long work, this makes operation of the balance in laminar flow cabinets, fume hoods and chambers of Glove Box type easy and convenient.



Weighing Process Control



Autotest Filter – Balance Settings Diagnostics

4Y series balances offer vast range of options enabling optimization of settings. This, right next to other useful features, facilitates adaptation of the balance onto the workstation. With the help of Autotest Filter function the user will find it easy to configure such vast amount of parameters.

----- Autotest Filtr Report -----		
Filter	Fast	 The fastest measurement the shortest measurement time
Value release	Fast	
Repeatability	0.00006 g	
Stabilization time	2.579 s	
Filter	Average	 Optimal measurement optimal time and repeatability settings
Value release	Fast and Reliable	
Repeatability	0.00004 g	
Stabilization time	3.934 s	
Filter	Average	 The most accurate measurement maximum repeatability
Value release	Reliable	
Repeatability	0.00005 g	
Stabilization time	3.364 s	
Filter	Slow	 The most accurate measurement maximum repeatability
Value release	Fast	
Repeatability	0.00005 g	
Stabilization time	3.179 g	
Filter	Slow	 The most accurate measurement maximum repeatability
Value release	Fast and Reliable	
Repeatability	0.00003 g	
Stabilization time	4.392 s	

The Autotest Filter tests all possible setting combinations automatically providing weighing time and repeatability values for each of them. Upon completed procedure, the balance displays the results of tested settings and the user can select the most optimal configuration.

GLP Autotest

GLP Autotest is a fully automatic control procedure, using the internal adjustment system for testing the balance indication repeatability.

It is a perfect solution intended for quality management systems (ISO, GMP, GLP, USP, ICH Q10, SOP). GLP Autotest in a quick and objective way confirms operated balance quality. Report on the procedure is permanently stored in a balance memory



----- Autotest GLP: Report -----	
Balance type	MYA 4Y PLUS
Balance ID	54862312
User	Admin
Software version	L1.4.15 K
Date	2020.04.24
Time	10:50:12

Number of measurement	10
Reading unit	0.000001 g
Internal weight mass	17.673052 g
Filter	Slow
Value release	Reliable
Temperature: Start	23.99 °C
Temperature: Stop	23.99 °C
Humidity: Start	58 %
Humidity: Stop	58 %

Deviation for Max.	0.000004 g
Repeatability	0.0000017 g

Signature	

Databases



Databases as a Support of the Weighing Process

4Y series balances feature complex databases (users, products, printouts, formulations, packagings, etc.) that allow effective and complete data management.

The database user can record advanced reports and graphs presenting weighing series and images of time and statistics graphs. Size of particular databases is dynamically shared within 32 GB memory flash.



Data Synchronization and Archiving

The 4Y series facilitates transfer of data between balances. Import and export options enable easy data management, copying and archiving. It allows to synchronise the databases, user profiles and balance-stored data.

USB interface allows for fast copying of data to portable memory storage.

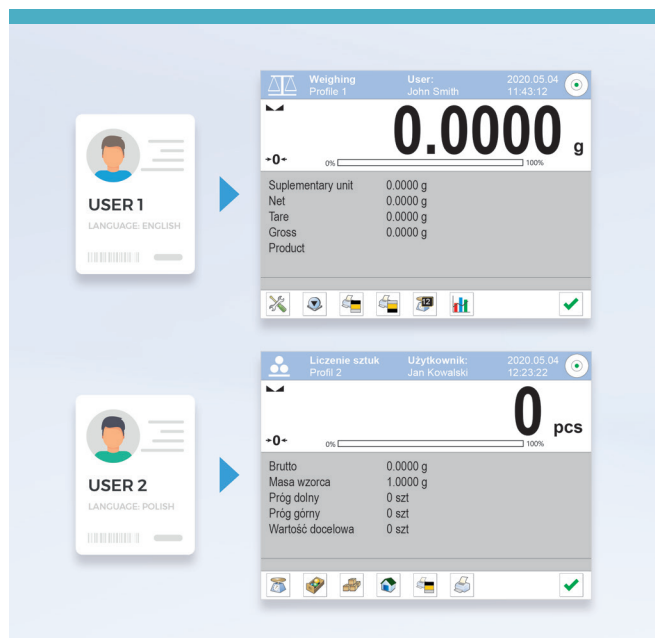
Management of IT System Data

All weighing processes can be supported via external computer applications. Modular E2R PC software offers remote balance operation and control of data sent between the computer and a particular weighing workstation. It is also a productive tool for archiving and analysis of weighing results.

The core component of the E2R system is the SQL database and the PC software, integrated with the weighing workstations operating in ETHERNET and Wi-Fi® network.



Security and Protection



Balance Setting Customization

Customization of balance settings allows to adapt the device functionality to user preferences and the performed measurement type.

Each user may be assigned with an individual profile with a preferred language version of the interface, selected quick access buttons, operation mode settings, filters, printout types etc.



Access Control and Data Protection

Safe use of one balance by numerous users is possible due to varying access rights to particular functions and individual permission levels.

Four permission levels allow to carefully supervise user operation and guarantee protection of any particularly crucial data. Access to each level is protected by password.

ALIBI Memory: Safe Information

ALIBI memory is a special balance storage space where the mass measurement information is permanently recorded.

The memory ensures automatic record of measurement and an option of recorded data analysis simultaneously ensuring safety of information.

Alibi memory content may be previewed via a freeware application, Alibi Reader.



Reports and Printouts



----- Weighing -----		Each report section can be freely configured by the user. Section 1 Header
Date	2020.05.11	
Time	09:50:28	
Balance ID	2518463	
Operator	Admin	
Level status	Yes	
Product	Calcium	
Packaging	Blister	Section 2 Weighing data
Temperature during measurements	26.79 °C	
Humidity during measurements	24%	
Pressure during measurements	994 hPa	
Net weight	0.1118376 g	Section 3 Footer
Tare	0.5000000 g	
Gross weight	0.6118376 g	
Supplementary unit	0.5591880 ct	
Minimum sample status	OK	

Signature		

Weighing Process Documentation

On 4Y series balances each weighing process ends with generation of a respective report which is next saved to a report database.

Access to the report database allows the user to preview, print, export, archive and freely configure reports on all carried out weighings.

Adaptable Printout Configuration

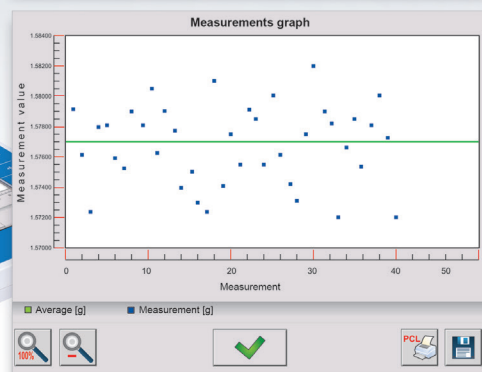
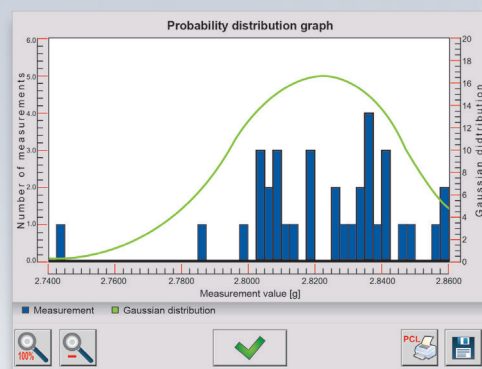
4Y series offer two types of printouts. The user can generate standard printouts using fixed templates or non-standard printouts of custom design.

The used solution enables free exchange of printouts and labels between balances (TXT or LB files).

Measurement Visualization and Statistics

Some working modes of the 4Y series balances (Statistics, SQC) offer the possibility of measurement graph generation.

The user can generate graphs showing determined average value and graphs presenting measurement distribution probability. Each graph can be printed and saved as BMP file.

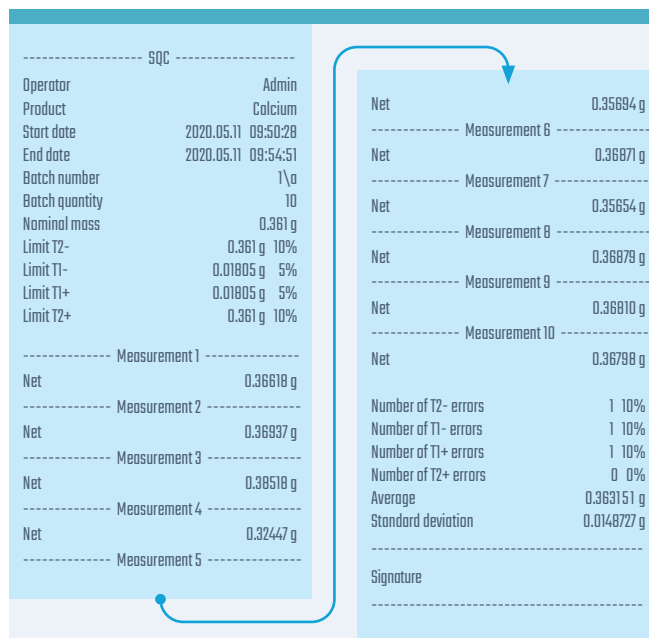


Analysis and Statistics



SQC - Automatic Analysis of Statistical Data

SQC module is a perfect tool for precise control of sample mass. The analysis can be carried out at the production stage (warning and critical limits) and during other control processes.



Precise comparison of current sample mass versus the reference value is possible due to automatic scaling of checkweighing thresholds. Such solution allows fast checkweighing with optimum accuracy.

Innovative SQC Reports tool stores information regarding carried out tests, test ID, names, statistical data, information etc. The stored information is recorded in a database.

Differential Mass Measurement: Analysis of Sample Mass Variation

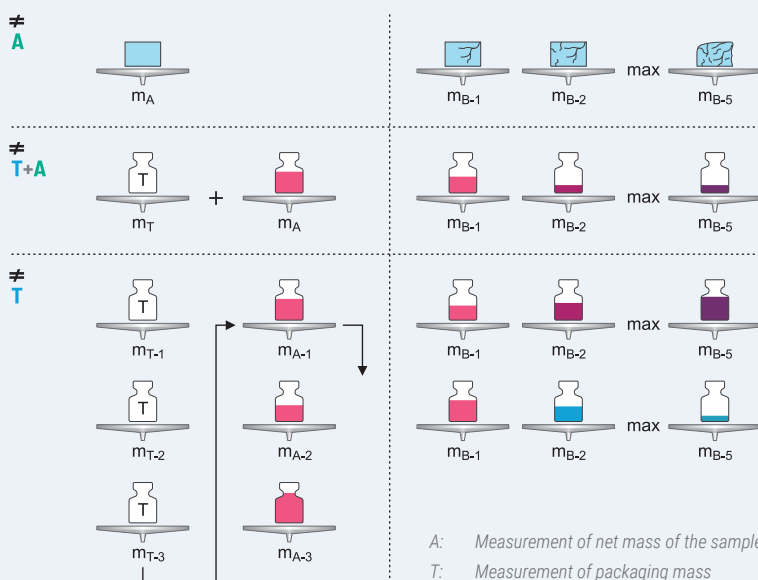
"Differential Weighing" module analyses sample mass change, which is useful especially when the sample is subjected to numerous processes.

Thanks to high flexibility, the module enables use of various measuring techniques (e.g. many different methods of measurement of samples, even those that are grouped into one series).

Ambient conditions prevailing at the workstation during the measurement performance are registered automatically. Comparison of this information in various cycles may prove compliance with standard requirements.

Measurement Methods

A method is a sequence of steps. The operator can select series, samples or weighing cycles (e.g. combined procedure).



Software and Accessories

PC Software



R-LAB

Collecting measurements, statistical analysis, graphs and reports.



E2R Weighing Records

Support of labelling and part counting process, registering and archiving of weighings, database synchronisation, reports and graphs.



Label Editor R02

Label template designing, label printout.



Pipettes

Calibration of single-channel and multi-channel pipettes of fixed/variable volume, determination of measurement errors, compliance with ISO 8655.



Audit Trail Reader

Register of user activity.



Parameter Editor

Online preview of the balance screen, remote balance parameter configuration, import and export of the parameters to the balance.



R.Barcode

Display of data read by a barcode scanner.



RAD-KEY

Collecting balance-performed measurements.



RADWAG Development Studio

A set of advanced IT development tools.



LabVIEW Driver

Support of RADWAG-manufactured weighing instruments operating in LabView environment.



RADWAG Connect

Connection of weighing instruments, balance function, LAN communication and record measurements to a program.



RADWAG Remote Desktop

Remote control of a balance via a computer, a telephone or a tablet.

Accessories and Additional Equipment



Anti-Vibration Weighing Tables

Stable weighing workstations for precise measurements in the laboratory.



Adapters for Pipettes Calibration

Adapters for pipette calibration and for testing piston pipettes using a gravimetric method (intended for selected balance models exclusively).



Pipettes

Automatic piston pipettes of adjustable volume are intended for fast dosing of liquid with the highest accuracy.



Laboratory Ware Holders

Laboratory holders for convenient and safe fixing of small containers of both typical and atypical shapes.



Ambient conditions sensors

The THB sensor for measurement of temperature, humidity and atmospheric pressure at the workstation.



Under-Pan Weighing Station

For weighing samples of non-standard shape, size or magnetic characteristics and for density determination.



Automatic Feeder

Online preview of the balance screen, remote balance parameter configuration, import and export of the parameters to the balance.



LCD

Additional LCD on a stand, housed in a plastic casing.



Power Supply with a Battery

Intended for powering the balance in case the connection to the mains is impossible. Equipped with an in-built charger.



Receipt Printers

Dot matrix printer intended for printout of receipts in weighing systems.



Barcode Scanners

Vast range of barcodes intended for weighing systems.



Cables for Printers and Computers

Cables connecting the weighing instrument with a computer or any peripheral device.



UYA 4Y PLUS



UYA 4Y



UYA 4Y.F PLUS



UYA 4Y.F

Technical data				
Maximum capacity [Max]		2.1 – 6.1 g	2.1 – 6.1 g	2.1 g
Readability [d]		0.1 µg	0.1 µg	0.1 µg
Standard values	Repeatability (5% Max)*	0.2 – 0.25 µg	0.2 – 0.25 µg	0.2 µg
	Repeatability (Max)*	0.4 – 0.5 µg	0.4 – 0.5 µg	0.4 µg
	Minimum weight (USP)	0.4 – 0.5 mg	0.4 – 0.5 mg	0.4 mg
	Minimum weight (U=1%, k=2)	0.04 – 0.05 mg	0.04 – 0.05 mg	0.04 mg
Permissible values	Repeatability (5% Max)*	0.35 – 0.4 µg	0.35 – 0.4 µg	0.35 µg
	Repeatability (Max)*	0.6 – 0.8 µg	0.6 – 0.8 µg	0.6 µg
Linearity		±1.5 µg	±1.5 µg	±1.5 µg
Stabilization time		10 – 20 s	10 – 20 s	10 – 20 s
Adjustment		internal	internal	internal
Verification		●	●	●
Display		5.7" colour	5.7" colour	5.7" colour
Weighing pan dimensions		ø 16 mm	ø 16 mm	ø 50 mm
Communication Interfaces		USB (type-A) × 2 Ethernet RS 232 × 2 Wi-Fi®	USB (type-A) × 2 Ethernet RS 232 × 2 Wi-Fi®	USB (type-A) × 2 Ethernet RS 232 × 2 Wi-Fi®
Functionality				
Touch screen	– for more read page 2	●	●	●
Wireless terminal	– for more read page 17	○	○	○
Automatic doors	– for more read page 10	●	●	
Touch-free operation	– for more read page 11			
Internal glass shelf	– for more read page 10			
Reflex Level System	– for more read page 11	●		●
LevelSENSING System	– for more read page 11		●	●
Antistatic ionizer	– for more read page 12			
2-Point Adjustment	– for more read page 14	●	●	●
Movable Fine Range	– for more read page 15			
Intended use				
Mass measurement		●	●	
Pipette calibration				
Filter weighing			●	●

● Available for all (or most) models

ⓘ Available for selected models only

○ Available as an option

+ Available upon purchase of a dedicated accessory (adapter for pipette calibration)

					
MYA 4Y PLUS	MYA 4Y	MYA 4Y.P PLUS	MYA 4Y.P	MYA 4Y.F PLUS	MYA 4Y.F
0.8 – 52 g	0.8 – 52 g	21 g	21 g	5.1 g	5.1 g
1 – 10 µg	1 – 10 µg	1 µg	1 µg	1 µg	1 µg
0.8 – 1.8 µg	0.8 – 1.8 µg	1.2 µg	1.2 µg	0.8 µg	0.8 µg
4.1 – 10 µg	4.1 – 10 µg	3 µg	3 µg	1.6 µg	1.6 µg
1.6 – 3.6 mg	1.6 – 3.6 mg	2.4 mg	2.4 mg	2 mg	2 mg
0.16 – 0.36 mg	0.16 – 0.36 mg	0.24 mg	0.24 mg	0.2 mg	0.2 mg
1.2 – 2.7 µg	1.2 – 2.7 µg	1.6 µg	1.6 µg	1.2 µg	1.2 µg
6 – 15 µg	6 – 15 µg	4 µg	4 µg	2.4 µg	2.4 µg
±3 – ±30 µg	±3 – ±30 µg	±7 µg	±7 µg	±5 µg	±5 µg
max 8 – 10 s	max 8 – 10 s	max 10 s	max 10 s	max 10 s	max 10 s
internal	internal	internal	internal	internal	internal
●	●	●	●	●	●
5.7" colour	5.7" colour	5.7" colour	5.7" colour	5.7" colour	5.7" colour
ø 16 mm or ø 26 mm or ø 40 mm	ø 16 mm or ø 26 mm or ø 40 mm	ø 26 mm	ø 26 mm	ø 100 mm or ø 160 mm	ø 100 mm or ø 160 mm
USB (type-A) × 2 Ethernet RS 232 × 2 Wi-Fi®	USB (type-A) × 2 Ethernet RS 232 × 2 Wi-Fi®	USB (type-A) × 2 Ethernet RS 232 × 2 Wi-Fi®	USB (type-A) × 2 Ethernet RS 232 × 2 Wi-Fi®	USB (type-A) × 2 Ethernet RS 232 × 2 Wi-Fi®	USB (type-A) × 2 Ethernet RS 232 × 2 Wi-Fi®
●	●	●	●	●	●
○	○	○	○	○	○
●	●	●	●		
●		●		●	
	●		●		●
●	●	●	●	●	●
⌚	⌚				
●	●	●	●		
⌚+	⌚+	●	●		
				●	●

Repeatability is expressed as standard deviation from 10 loadings of weight (in stable laboratory conditions).

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XA 4Y.M.A PLUS



XA 4Y.M.A.P PLUS

Technical data			
Maximum capacity [Max]		6.1 – 52 g	6.1 – 52 g
Readability [d]		1 – 5 µg	1 – 5 µg
Standard values	Repeatability (5% Max)*	1 – 2.4 µg	1 – 2.4 µg
	Repeatability (Max)*	2.5 – 6 µg	2.5 – 6 µg
	Minimum weight (USP)	2 – 4.8 mg	2 – 4.8 mg
	Minimum weight (U=1%. k=2)	0.2 – 0.48 mg	0.2 – 0.48 mg
Permissible values	Repeatability (5% Max)*	1.5 – 3.4 µg	1.5 – 3.4 µg
	Repeatability (Max)*	3 – 8 µg	3 – 8 µg
Linearity		±7 – ±20 µg	±7 – ±20 µg
Stabilization time		~ 3.5 s	~ 3.5 s
Adjustment		internal	internal
Verification		●	●
Display		5.7" colour	5.7" colour
Weighing pan dimensions		ø 30 mm	ø 26 mm
Communication Interfaces		USB (type-A) × 2 Ethernet RS 232 × 2 Wi-Fi®	USB (type-A) × 2 Ethernet RS 232 × 2 Wi-Fi®
Functionality			
Touch screen	– for more read page 2	●	●
Wireless terminal	– for more read page 17	○	○
Automatic doors	– for more read page 10	●	●
Touch-free operation	– for more read page 11	●	●
Internal glass shelf	– for more read page 10		
Reflex Level System	– for more read page 11	●	●
LevelSENSING System	– for more read page 11		
Antistatic ionizer	– for more read page 12	●	●
2-Point Adjustment	– for more read page 14	●	●
Movable Fine Range	– for more read page 15	ⓘ	ⓘ
Intended use			
Mass measurement		●	
Pipette calibration		ⓘ+	●
Filter weighing			

● Available for all (or most) models

ⓘ Available for selected models only

○ Available as an option

+ Available upon purchase of a dedicated accessory (adapter for pipette calibration)



XA 4Y.M PLUS



XA 4Y.A PLUS



XA 4Y.F



XA 4Y PLUS

6.1 – 52 g	52 – 520 g	52 – 110 g	52 – 520 g
1 – 5 µg	0.01 – 0.1 mg	0.01 mg	0.01 – 0.1 mg
1 – 2.4 µg	0.005 – 0.07 mg	0.007 mg	0.005 – 0.07 mg
2.5 – 6 µg	0.01 – 0.18 mg	0.01 – 0.02 mg	0.01 – 0.18 mg
2 – 4.8 mg	10 – 140 mg	14 mg	10 – 140 mg
0.2 – 0.48 mg	1 – 14 mg	1.4 mg	1 – 14 mg
1.4 – 3.4 µg	0.012 – 0.12 mg	0.01 mg	0.012 – 0.12 mg
3 – 8 µg	0.02 – 0.25 mg	0.02 – 0.03 mg	0.02 – 0.25 mg
±7 – ±20 µg	±0.03 – ±0.5 mg	±0.03 – ±0.06 mg	±0.03 – ±0.5 mg
~ 3.5 s	~ 2.5 – 4 s	~ 5 – 30 s	~ 2.5 – 4 s
internal	internal	internal	internal
●	●	●	●
5.7" colour	5.7" colour	5.7" colour	5.7" colour
ø 50 mm	ø 90 mm or ø 100 mm	210 × 254 mm and ø 90 mm	ø 90 mm or ø 100 mm
USB (type-A) × 2 Ethernet RS 232 × 2 Wi-Fi®	USB (type-A) × 2 Ethernet RS 232 × 2 Wi-Fi®	USB (type-A) × 2 Ethernet RS 232 × 2 Wi-Fi®	USB (type-A) × 2 Ethernet RS 232 × 2 Wi-Fi®
●	●	●	●
○	○	○	○
	●		
●	●	●	●
○			○
●	●		●
	●	●	
●	●	●	●
ⓘ	ⓘ		ⓘ
●	●	●	●
ⓘ+	ⓘ+		ⓘ+
		●	

Repeatability is expressed as standard deviation from 10 loadings of weight (in stable laboratory conditions).

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