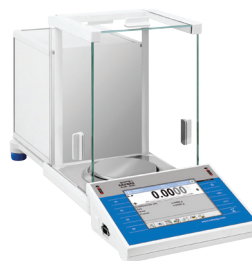


# XA 4Y Analytical Balances

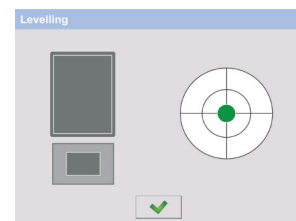
Analytical weighing of the highest quality and accuracy using professional balances



XA 4Y d = 0,01 mg



XA 4Y, d = 0,1 mg



Automatic control of the level



Intuitive operation and touch screen

## Functions

- |                |                       |                             |                                |                   |
|----------------|-----------------------|-----------------------------|--------------------------------|-------------------|
| Parts counting | Percent weighing      | Pipettes calibration        | Under hook weighing            | Proximity sensors |
| Dosing         | Statistics            | Statistical quality control | Cooperation with titrators     | Moveable range    |
| Checkweighing  | Animal weighing       | Autotest                    | Ambient conditions measurement | Replaceable unit  |
| Formulations   | Differential weighing | Density determination       | GLP procedures                 | Multilingual menu |

## Features

### Reliable Results and Excellent Weighing Parameters

The best weighing parameters enable applying XA 4Y analytical balances in majority of demanding laboratory processes.

### Innovative 2-Point Adjustment

The unique 2-point adjustment system guarantees the best accuracy of the weighing results and minimizes linearity errors thus ensuring reliable measurements within the whole measuring range.

### Significantly Fast Measurements

Powerful processor offers new possibilities of operation assuring short indication stabilization time at a respective repeatability.

### Second to None Repeatability and Compliance with USP

XA 4Y analytical balances feature the highest measurements accuracy, excellent repeatability and are compliant with USP requirements (Chapter 41 and 1251).

### Intuitive Operation and Touch Screen

5.7" colour touch screen enables intuitive operation and easy access to numerous applications and functions of the weighing instrument.

### Automatic Control of the Level

Levelling system facilitates adjustment of device level, it also uninterruptedly controls the level state, and informs about potential level deviations.

### Spacious Weighing Chamber

Large weighing chamber enables convenient operation using laboratory vessels of different dimensions.

### Numerous Options of Data Management

Extensive storage capacity allows record of all measurement data in a form of complex reports and statistical graphs.

## Technical Specifications

	XA 52.4Y	XA 82/220.4Y	XA 110.4Y	XA 120/250.4Y
<b>Maximum capacity [Max]</b>	52 g	82/220 g	110 g	120 g / 250 g
<b>Minimum load</b>	1 mg	1 mg	1 mg	1 mg
<b>Readability [d]</b>	0.01 mg	0.01 mg / 0.1 mg	0.01 mg	0.01 mg / 0.1 mg
<b>Verification scale interval [e]</b>	1 mg	1 mg	1 mg	1 mg
<b>Tare range</b>	-52 g	-220 g	-110 g	-250 g
<b>Standard values</b>				
<b>Repeatability(5% Max)*</b>	0.006 mg	0.006 mg	0.006 mg	0.006 mg
<b>Repeatability(Max)*</b>	0.01 mg	0.06 mg	0.02 mg	0.06 mg
<b>Minimum weight (USP)</b>	12 mg	12 mg	12 mg	12 mg
<b>Minimum weight (U=1%, k=2)</b>	1.2 mg	1.2 mg	1.2 mg	1.2 mg
<b>Permissible values</b>				
<b>Repeatability(5% Max)*</b>	0.012 mg	0.012 mg	0.012 mg	0.012 mg
<b>Repeatability(Max)*</b>	0.02 mg	0.08 mg	0.03 mg	0.1 mg
<b>Linearity</b>	±0.03 mg	±0.06 / ±0.2 mg	±0.06 mg	±0.06 / ±0.2 mg
<b>Eccentric load deviation</b>	0.03 mg	0.2 mg	0.06 mg	0.2 mg
<b>Stabilization time</b>	~ 4 s	~ 4 s	~ 4 s	~ 4 s
<b>Adjustment</b>	internal	internal	internal	internal
<b>Moveable range</b>	—	Yes	—	Yes
<b>Verification</b>	Yes	Yes	Yes	Yes
<b>OIML Class</b>	I	I	I	I
<b>Indicator fastening</b>	35 cm cable, wireless connection (option)**	35 cm cable, wireless connection (option)**	35 cm cable, wireless connection (option)**	35 cm cable, wireless connection (option)**
<b>Display</b>	5.7" colour, resistive touch screen	5.7" colour, resistive touch screen	5.7" colour, resistive touch screen	5.7" colour, resistive touch screen
<b>Keypad</b>	8 keys	8 keys	8 keys	8 keys
<b>Protection class</b>	IP 43	IP 43	IP 43	IP 43
<b>Databases</b>	19	19	19	19
<b>Touch-free operation</b>	2 programmable proximity sensors	2 programmable proximity sensors	2 programmable proximity sensors	2 programmable proximity sensors
<b>USB-A</b>	2	2	2	2
<b>Ethernet</b>	10 / 100 Mbit	10 / 100 Mbit	10 / 100 Mbit	10 / 100 Mbit
<b>RS 232</b>	2	2	2	2
<b>Wi-Fi®</b>	802.11 b/g/n	802.11 b/g/n	802.11 b/g/n	802.11 b/g/n
<b>Power supply</b>	13.5 ÷ 16 V DC	13.5 ÷ 16 V DC	13.5 ÷ 16 V DC	13.5 ÷ 16 V DC
<b>Power consumption</b>	10 W	10 W	10 W	10 W
<b>Operating temperature</b>	+10 ÷ +40 °C	+10 ÷ +40 °C	+10 ÷ +40 °C	+10 ÷ +40 °C
<b>Atmospheric humidity***</b>	40 ÷ 80%	40 ÷ 80%	40 ÷ 80%	40 ÷ 80%
<b>Transport and storage temperature</b>	-20 ÷ +50 °C	-20 ÷ +50 °C	-20 ÷ +50 °C	-20 ÷ +50 °C
<b>Weighing pan dimensions</b>	ø 90 mm open-work ø 85 mm standard (option)****	ø 90 mm open-work ø 85 mm standard (option)****	ø 90 mm open-work ø 85 mm standard (option)****	ø 90 mm open-work ø 85 mm standard (option)****
<b>Weighing chamber dimensions</b>	168 × 160 × 228 mm	168 × 160 × 228 mm	168 × 160 × 228 mm	168 × 160 × 228 mm
<b>Weighing device dimensions</b>	542 × 206 × 303 mm	542 × 206 × 303 mm	542 × 206 × 303 mm	542 × 206 × 303 mm
<b>Net weight</b>	9.8 kg	9.8 kg	9.8 kg	9.8 kg
<b>Gross weight</b>	14.3 kg	14.3 kg	14.3 kg	14.3 kg
<b>Packaging dimensions</b>	720 × 385 × 485 mm	720 × 385 × 485 mm	720 × 385 × 485 mm	720 × 385 × 485 mm

\* repeatability is expressed as a standard deviation from 10 weighing cycles

\*\* optional solution on purchase order

\*\*\* non-condensing conditions

\*\*\*\* ø 85 mm standard weighing pan on purchase order

Values of parameters provided in Technical Specifications table have been determined under stable laboratory conditions. Due to ambient conditions impact or/and balance setup, the above parameters may vary for environments other than laboratory.

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

	XA 210.4Y	XA 220.4Y	XA 310.4Y	XA 520.4Y
<b>Maximum capacity [Max]</b>	210 g	220 g	310 g	520 g
<b>Minimum load</b>	1 mg	10 mg	10 mg	—
<b>Readability [d]</b>	0.01 mg	0.1 mg	0.1 mg	0,1 mg
<b>Verification scale interval [e]</b>	1 mg	1 mg	1 mg	—
<b>Tare range</b>	-210 g	-220 g	-310 g	-520 g
<b>Standard values</b>				
<b>Repeatability(5% Max)*</b>	0.006 mg	0.05 mg	0.05 mg	0.07 mg
<b>Repeatability(Max)*</b>	0.025 mg	0.8 mg	0.1 mg	0.18 mg
<b>Minimum weight (USP)</b>	12 mg	100 mg	100 mg	140 mg
<b>Minimum weight (U=1%, k=2)</b>	1.2 mg	10 mg	10 mg	14 mg
<b>Permissible values</b>				
<b>Repeatability(5% Max)*</b>	0.012 mg	0.07 mg	0.07 mg	0.1 mg
<b>Repeatability(Max)*</b>	0.035 mg	0.1 mg	0.15 mg	0.25 mg
<b>Linearity</b>	±0.1 mg	±0.2 mg	±0.3 mg	±0.5 mg
<b>Eccentric load deviation</b>	0.1 mg	0.2 mg	0.3 mg	0.4 mg
<b>Stabilization time</b>	~ 4 s	~ 2.5 s	~ 2.5 s	~ 2.5 s
<b>Adjustment</b>	internal	internal	internal	internal
<b>Moveable range</b>	—	—	—	—
<b>Verification</b>	Yes	Yes	Yes	No
<b>OIML Class</b>	I	I	I	—
<b>Indicator fastening</b>	35 cm cable. wireless connection (option)**	35 cm cable. wireless connection (option)**	35 cm cable. wireless connection (option)**	35 cm cable. wireless connection (option)**
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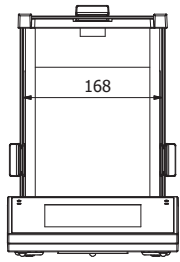
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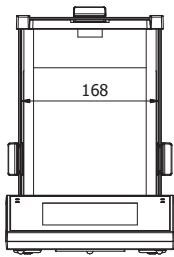
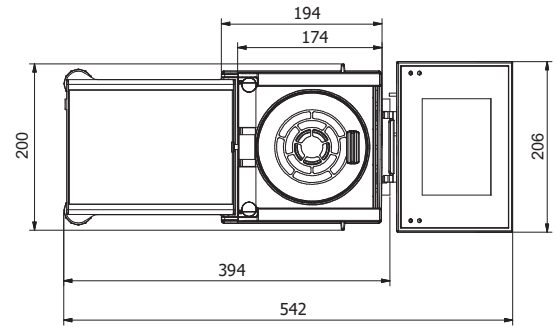
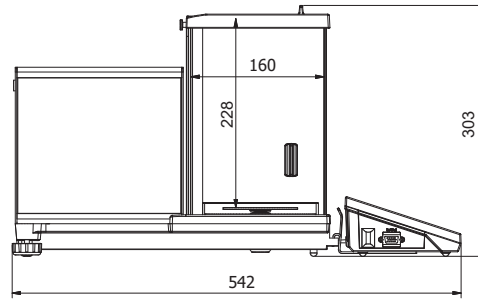
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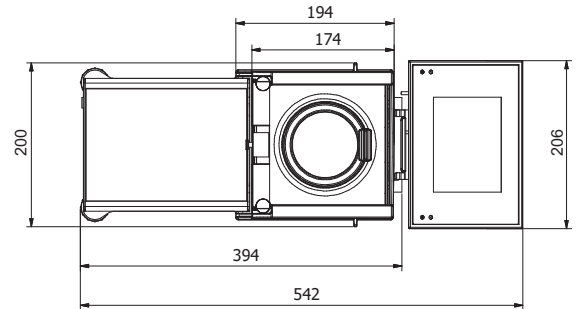
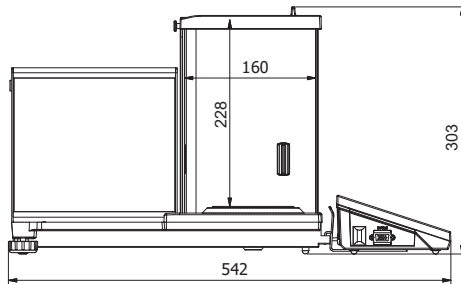
## Dimensions



XA 4Y, d = 0.01 mg



XA 4Y, d = 0.1 mg



## Accessories

### Weighing Tables

- granite antivibration table
- antivibration tables for laboratory balances
- professional weighing table

### Professional Weighing

- Adapter for calibration of XA17 i XA100 series pipettes
- KIT 85 density determination kit
- laboratory ware holders
- automatic feeder
- under-hook weighing rack

### Ambient Conditions

- DJ-04 anti-static ioniser
- THB-S or THB-P sensor

### Peripheral Devices

- Epson dot matrix printer
- barcode scanners
- WD-5/3Y LCD display

### Cables, Converters

- P0108: RS 232 cable (balance-computer)
- P0167: RS 232 cable (balance-computer)
- P0151: RS 232 cable (balance - Epson printer)

### Electrical Accessories

- ZR-02 power supply with battery

## Dedicated Software

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### R-LAB

- collecting measurements
- carrying out statistical analysis of measurements
- customized graphs and reports

### E2R Weighing Records

- complete, automated databases synchronization
- fully supported processes of labelling and parts counting
- record of weighings, weighings archiving
- basic and advanced (with graphs) reports

### Label Editor R02

- designing label templates
- sending graphics and fonts to label printers
- printing label templates using connected printers

### Pipettes

- determining measurement errors of pipettes volume
- accordance with ISO 8655
- calibration of single-channel and multi-channel pipettes
- calibration of fixed-volume and variable-volume pipettes

### Audit Trail Reader

- support of Audit Trail function available for 3Y, 4Y, HY10, WLY, WPY series weighing instruments
- record of operator's activity from the moment of logging in

### Parameters Editor

- remote change of parameters
- remote on-line preview of the display
- displaying current mass indication
- software update
- file loading, editing and saving parameters to a file
- import and export of parameters
- interfaces: RS232, Ethernet and Wireless Connection.
- quick and easy edition of balance parameters using computer.

### RAD KEY

- Establishing cooperation between a weighing instrument and a computer

### R. Barcode

- The basic function software is presentation of the data sent by barcode scanners connected to PC via USB or RS232

### Radwag Development Studio

- presentation of functions (and subfunctions) of communication protocol (Common Communication Protocol)
- possibility of connection with weighing equipment on which each function is carried out,
- library with mass control, contained within the development environment
- complete documentation of the communication protocol
- set of user manuals for different solutions addressed for programmers employed in companies using RADWAG-manufactured weighing equipment

### LabView Driver

- operation of RADWAG balances in LabView environment

### RADWAG Connect

- establishing communication with all balances, scales and weighing modules using Common Communication Protocol
- communication via local network,
- support of basic functions
- auto searching for devices
- connecting with few devices simultaneously, swapping between them
- clear list of connected platforms
- record of measurements in the program,
- export of carried out measurements to CSV file,
- work performed using freely selected device with Windows 10 operating system

### RADWAG Remote Desktop

- remote operation via computer, mobile phone or tablet
- sending text messages
- version for Windows 10 and Android systems