

XA 4Y.A Analytical Balances

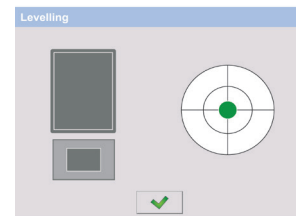
Analytical weighing of the highest quality, maximum accuracy and comfort of operation using professional balances



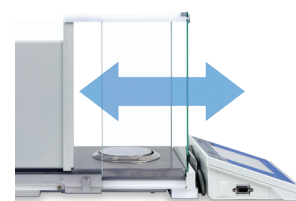
XA 4Y.A, d = 0,01 mg



XA 4Y.A, d = 0,1 mg



Automatic control of the level



Automatic weighing chamber door

Functions

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

Features

Reliable Results and Excellent Weighing Parameters

The best weighing parameters enable applying XA 4Y.A 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 Measurement

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.A 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.

Large, Automatically Opened Weighing Chamber

Spacious weighing chamber with automatic door enables comfort of the operation with samples and quick access to the weighing pan. Proximity sensors allow you to open and close the weighing chamber touch-free.

Numerous Options of Data Management

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

Technical Specifications

	XA 52.4Y.A	XA 82/220.4Y.A	XA 110.4Y.A	XA 120/250.4Y.A
Maximum capacity [Max]	52 g	82/220 g	110 g	120/250 g
Minimum load	1 mg	1 mg	1 mg	1 mg
Readability [d]	0.01 mg	0.01 mg / 0.1 mg	0,01 mg	0.01 mg / 0.1 mg
Verification scale interval [e]	1 mg	1 mg	1 mg	1 mg
Tare range	-52 g	-220 g	-110 g	-250 g
Repeatability(5% Max)*	0.006 mg (Rt ≤ 3g)	0.007 mg (Rt ≤ 10 g)	0.007 mg (Rt ≤ 5 g)	0.007 mg (Rt ≤ 10 g)
Repeatability(Max)*	0.01 mg	0.06 mg	0.02 mg	0.06 mg
Linearity	±0.03 mg	±0.06 mg / ±0.2 mg	±0.06 mg	±0.06 / ±0.2 mg
Eccentric load deviation	0.03 mg	0.2 mg	0.06 mg	0.2 mg
Sensitivity temperature drift**	1 × 10 ⁻⁶ / °C × Rt	1 × 10 ⁻⁶ / °C × Rt	1 × 10 ⁻⁶ / °C × Rt	1 × 10 ⁻⁶ / °C × Rt
Sensitivity time drift	1 × 10 ⁻⁶ / Year × Rt	1 × 10 ⁻⁶ / Year × Rt	1 × 10 ⁻⁶ / Year × Rt	1 × 10 ⁻⁶ / Year × Rt
Minimum weight (U=1%, k=2)	1.2 mg	1.4 mg	1.4 mg	1.4 mg
Minimum weight (USP)	12 mg	14 mg	14 mg	14 mg
Stabilization time	~ 4 s	~ 4 s	~ 4 s	~ 4 s
Adjustment	internal	internal	internal	internal
Moveable range	—	Yes	—	Yes
Verification	Yes	Yes	Yes	Yes
OIML Class	I	I	I	I
Indicator fastening	35 cm cable, wireless connection (option)****	35 cm cable, wireless connection (option)****	35 cm cable, wireless connection (option)****	35 cm cable, wireless connection (option)****
Display	5.7" colour, resistive touch screen	5.7" colour, resistive touch screen	5.7" colour, resistive touch screen	5.7" colour, resistive touch screen
Keypad	8 keys	8 keys	8 keys	8 keys
Protection class	IP 43	IP 43	IP 43	IP 43
Databases	19	19	19	19
Touch-free operation	2 programmable proximity sensors	2 programmable proximity sensors	2 programmable proximity sensors	2 programmable proximity sensors
USB-A	2	2	2	2
Ethernet	10 / 100 Mbit	10 / 100 Mbit	10 / 100 Mbit	10 / 100 Mbit
RS 232	2	2	2	2
Wireless connection	802.11 b/g/n	802.11 b/g/n	802.11 b/g/n	802.11 b/g/n
IN/OUT	4 × IN, 4 × OUT	4 × IN, 4 × OUT	4 × IN, 4 × OUT	4 × IN, 4 × OUT
Power supply	13.5 ÷ 16 V DC	13.5 ÷ 16 V DC	13.5 ÷ 16 V DC	13.5 ÷ 16 V DC
Power consumption	10 W	10 W	10 W	10 W
Operating temperature	+10 ÷ +40 °C	+10 ÷ +40 °C	+10 ÷ +40 °C	+10 ÷ +40 °C
Atmospheric humidity*****	40 ÷ 80 %	40 ÷ 80 %	40 ÷ 80 %	40 ÷ 80%
Transport and storage temperature	-20 ÷ +50 °C	-20 ÷ +50 °C	-20 ÷ +50 °C	-20 ÷ +50 °C
Weighing pan dimensions	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)*****
Weighing chamber dimensions	199 × 160 × 228 mm	199 × 160 × 228 mm	199 × 160 × 228 mm	199 × 160 × 228 mm
Weighing device dimensions	564 × 253 × 300 mm	564 × 253 × 300 mm	564 × 253 × 300 mm	564 × 253 × 300 mm
Net weight	14.7 kg	14.7 kg	14.7 kg	14.7 kg
Gross weight	19.1 kg	19.1 kg	19.1 kg	19.1 kg
Packaging dimensions	720 × 385 × 485 mm	720 × 385 × 485 mm	720 × 385 × 485 mm	720 × 385 × 485 mm

Rt net weight

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

** parameter determined in the following temperature range: +15 ÷ +35 °C

*** optional solution on purchase order

**** non-condensing conditions

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

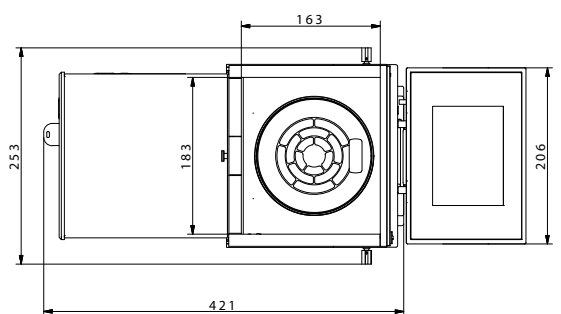
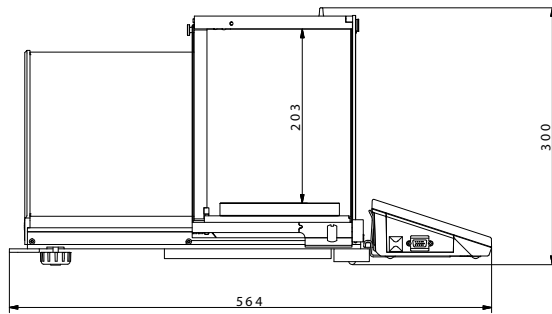
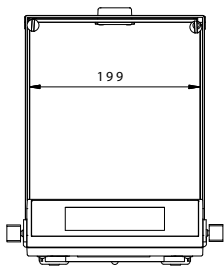
Values of parameters provided in Technical Specifications table have been determined under stable laboratory conditions. Due to ambient conditions impact or/and balance setup, the above parameters may vary for environments other than laboratory.

	XA 210.4Y.A	XA 220.4Y.A	XA 310.4Y.A
Maximum capacity [Max]	210 g	220 g	310 g
Minimum load	1 mg	10 mg	10 mg
Readability [d]	0.01 mg	0.1 mg	0.1 mg
Verification scale interval [e]	1 mg	1 mg	1 mg
Tare range	-210 g	-220 g	-310 g
Repeatability(5% Max)*	0.007 mg (Rt ≤ 10g)	0.06 mg (Rt ≤ 10g)	0.07 mg (Rt ≤ 15g)
Repeatability(Max)*	0.03 mg	0.1 mg	0.15 mg
Linearity	±0.1 mg	±0.2 mg	±0.3 mg
Eccentric load deviation	0.1 mg	0.2 mg	0.3 mg
Sensitivity temperature drift**	$1 \times 10^{-6} / ^\circ\text{C} \times \text{Rt}$	$1 \times 10^{-6} / ^\circ\text{C} \times \text{Rt}$	$1 \times 10^{-6} / ^\circ\text{C} \times \text{Rt}$
Sensitivity time drift	$1 \times 10^{-6} / \text{Year} \times \text{Rt}$	$1 \times 10^{-6} / \text{Year} \times \text{Rt}$	$1 \times 10^{-6} / \text{Year} \times \text{Rt}$
Minimum weight (U=1%, k=2)	1,4 mg	12 mg	14 mg
Minimum weight (USP)	14 mg	120 mg	140 mg
Stabilization time	~ 4 s	~ 2,5 s	~ 2,5 s
Adjustment	internal	internal	internal
Moveable range	—	—	—
Verification	Yes	Yes	Yes
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Indicator fastening	35 cm cable, wireless connection (option)***	35 cm cable, wireless connection (option)***	35 cm cable, wireless connection (option)***
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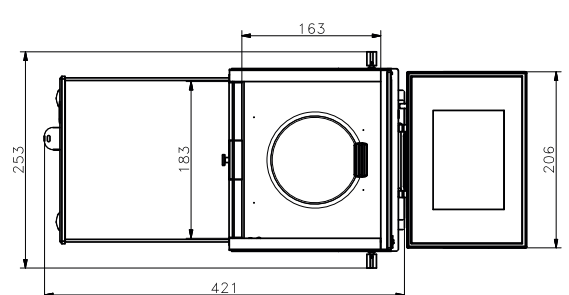
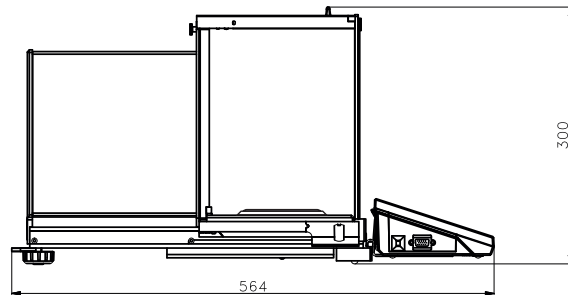
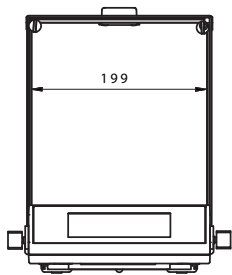
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Dimensions



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XA 4Y.A, d = 0,01 mg

Accessories

Weighing Tables

- granite antivibration table
- antivibration tables for laboratory balances
- professional weighing table
- workstation for pipettes calibration

Professional Weighing

- Adapter for calibration of XA17 i XA100 series pipettes
- KIT 85 density determination kit

Ambient Conditions

- DJ-04 anti-static ioniser
- THB-Y ambient conditions module

Peripheral Devices

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

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

Label Editor R02

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

R-LAB

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

RADWAG Remote Desktop

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

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