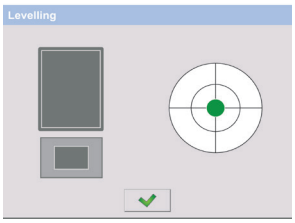
XA 4Y.M Microbalances

The latest series of RADWAG microbalances equipped with spacious weighing chamber and featuring range of innovative solutions and functionalities

XA 4Y.M with Ø = 30 mm weighing pan

XA 4Y.M with Ø = 50 mm weighing pan



Automatic control of the level

New design of the anti-draft shield

5.7" colour touch screen assuring intuitive operation

Functions

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

Features

The Highest Measurements Accuracy
XA 4Y.M microbalances feature the highest measurements accuracy, excellent repeatability and are compliant with USP requirements (Chapter 41 and 1251).

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

Touch-Free Operation
Two programmable proximity sensors can be assigned with any function or application. The given function when assigned is both run and operated touch-free.

Combined Weighing Pan Shields
The new weighing pan shield design reduces disturbances caused by air drafts, and provides easy access to the weighing pan making dispensing of the samples comfortable.

Vibrations Sensor
Continuous monitoring of vibrations informs the operator about vibrations level during operation. The solution improves reliability of carried out measurements, this is due to elimination of an accidental error caused by ground vibrations.

Defined Profiles
Four predefined profiles enable automatic balance parameters customization.

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 6.4Y.M	XA 6/21.4Y.M	XA 21.4Y.M
Maximum capacity [Max]	6.1 g	6 g / 21 g	21 g
Minimum load	100 µg	100 µg	200 µg
Readability [d]	1 µg	1 µg / 2 µg	2 µg
Verification scale interval [e]	1 mg	1 mg	1 mg
Tare range	–6.1 g	–21 g	–21 g
Repeatability*	1.5 µg (Rt ≤ 1 g) 2.5 µg (1 g < Rt ≤ 6.1g)	1.5 µg (Rt ≤ 1g) 2.5 µg (1 g < Rt ≤ 6 g) 3.5 µg (6 g < Rt ≤ 21g)	2 µg (Rt ≤ 1g) 3.5 µg (1g < Rt ≤ 21g)
Linearity	±7 µg	±9 µg	±9 µg
Eccentric load deviation	7 µg	15 µg	15 µg
Sensitivity temperature drift**	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
Minimum weight (U=1%, k=2)	0.3 mg	0.3 mg	0.4 mg
Minimum weight (USP)	3 mg	3 mg	4 mg
Stabilization time	~ 3.5 s	~ 3.5 s	~ 3.5s
Adjustment	internal	internal	internal
Moveable range	—	Yes	—
Verification	Yes	Yes	Yes
OIML Class	I	I	I
Indicator fastening	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
Keypad	8 keys	8 keys	8 keys
Protection class	IP 43	IP 43	IP 43
Databases	19	19	19
Touch-free operation	2 programmable proximity sensors	2 programmable proximity sensors	2 programmable proximity sensors
USB-A	2	2	2
Ethernet	10 / 100 Mbit	10 / 100 Mbit	10 / 100Mbit
RS 232	2	2	2
Wireless connection	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
Power supply	13.5 ÷ 16 V DC	13.5 ÷ 16 V DC	13.5 ÷ 16 V DC
Power consumption	10 W	10 W	10 W
Operating temperature	+10 ÷ +40 °C	+10 ÷ +40 °C	+10 ÷ +40 °C
Atmospheric humidity****	40 ÷ 80%	40 ÷ 80%	40 ÷ 80%
Transport and storage temperature	–20 ÷ +50 °C	–20 ÷ +50 °C	–20 ÷ +50 °C
Weighing pan dimensions	ø 30 mm	ø 50 mm	ø 50 mm
Weighing chamber dimensions	168 × 163 × 228 mm	168 × 163 × 228 mm	168 × 163 × 228 mm
Weighing device dimensions	542 × 206 × 303 mm	542 × 206 × 303 mm	542 × 206 × 303 mm
Net weight	9.8 kg	9.8 kg	9.8 kg
Gross weight	14.3 kg	14.3 kg	14.3 kg
Packaging dimensions	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

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 21/51.4Y.M	XA 51.4Y.M
Maximum capacity [Max]	21 g / 51 g	51 g
Minimum load	200 µg	500 µg
Readability [d]	2 µg / 5 µg	5 µg
Verification scale interval [e]	1 mg	1 mg
Tare range	–51 g	–51 g
Repeatability*	3 µg (Rt ≤ 2g) 4 µg (2g < Rt ≤ 21g) 6 µg (21g < Rt ≤ 51g)	4 µg (Rt ≤ 2g) 6 µg (2g < Rt ≤ 51g)
Linearity	±20 µg	±20 µg
Eccentric load deviation	20 µg	200 µg
Sensitivity temperature drift**	1×10^{-6} / °C × Rt	1×10^{-6} / °C × Rt
Sensitivity time drift	1×10^{-6} / Year × Rt	1×10^{-6} / Year × Rt
Minimum weight (U=1%, k=2)	0.6 mg	0.8 mg
Minimum weight (USP)	6 mg	8 mg
Stabilization time	~ 3.5 s	~ 3.5s
Adjustment	internal	internal
Moveable range	Yes	—
Verification	Yes	Yes
OIML Class	I	I
Indicator fastening	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
Keypad	8 keys	8 keys
Protection class	IP 43	IP 43
Databases	19	19
Touch-free operation	2 programmable proximity sensors	2 programmable proximity sensors
USB-A	2	2
Ethernet	10 / 100 Mbit	10 / 100 Mbit
RS 232	2	2
Wireless connection	802.11 b/g/n	802.11 b/g/n
IN/OUT	4 × IN, 4 × OUT	4 × IN, 4 × OUT
Power supply	13.5 ÷ 16 V DC	13.5 ÷ 16 V DC
Power consumption	10 W	10 W
Operating temperature	+10 ÷ +40 °C	+10 ÷ +40 °C
Atmospheric humidity****	40 ÷ 80%	40 ÷ 80%
Transport and storage temperature	–20 ÷ +50 °C	–20 ÷ +50 °C
Weighing pan dimensions	ø 50 mm	ø 50 mm
Weighing chamber dimensions	168 × 163 × 228 mm	168 × 163 × 228 mm
Weighing device dimensions	542 × 206 × 303 mm	542 × 206 × 303 mm
Net weight	9.8 kg	9.8 kg
Gross weight	14.3 kg	14.3 kg
Packaging dimensions	720 × 385 × 485 mm	720 × 385 × 485 mm

Rt net weight
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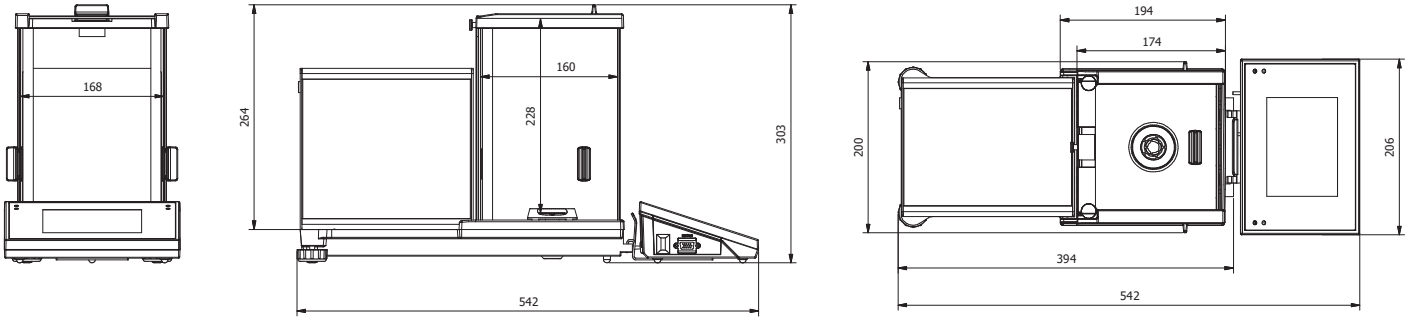
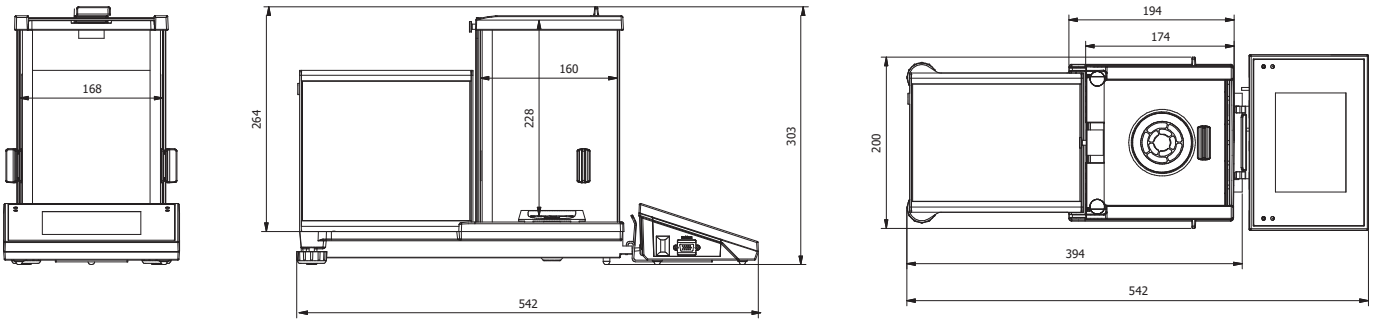
Dimensions



XA 4Y.M with Ø = 30 mm weighing pan



XA 4Y.M with Ø = 50 mm weighing pan

Accessories

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

Professional Weighing
- Adapter for calibration of XA11 series pipettes

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

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

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