



XA 82/220.5Y Analytical Balance, XA 220.5Y Analytical Balance, XA 110.5Y Analytical Balance, XA 210.5Y Analytical Balance, XA 310.5Y Analytical Balance, XA 52.5Y Analytical Balance, XA 120/250.5Y Analytical Balance, XA 520.5Y Analytical Balance

More information on the website  
radwag.com/en/info,w1,MD7



XA 82/220.5Y Analytical Balance  
XA 110.5Y Analytical Balance  
XA 210.5Y Analytical Balance  
XA 52.5Y Analytical Balance  
XA 120/250.5Y Analytical Balance

XA 220.5Y Analytical Balance  
XA 310.5Y Analytical Balance  
XA 520.5Y Analytical Balance

The drawings, photos and graphics used are for illustrative purposes only.

## Functions

- |  |                               |                             |                        |
|--|-------------------------------|-----------------------------|------------------------|
| Autotest   | Dosing                        | Percent Weighing            | Parts counting         |
| Peak hold  | Formulation                   | Newton unit measurement     | Statistics             |
| Checkweighing  | IR sensors                    | Under-pan weighing          | GLP Procedures         |
| Animal weighing  | Pipettes Calibration          | Air density correction      | Density determination  |
| Differential weighing  | Ambient conditions monitoring | Statistical Quality Control | Packaged Goods Control |
| ALIBI Memory   | Wi-Fi                         |                             |                        |
| Moveable range:<br>- XA 82/220.5Y Analytical Balance<br>- XA 120/250.5Y Analytical Balance |                               |                             |                        |

# Datasheet

	XA 52.5Y Analytical Balance	XA 82/220.5Y Analytical Balance	XA 110.5Y Analytical Balance
<b>Metrological parameters</b>			
<b>Maximum capacity [Max]</b>	52 g	82 / 220 g	110 g
<b>Minimum load</b>	1 mg	1 mg	1 mg
<b>Readability [d]</b>	0,01 mg	0,01 / 0,1 mg	0,01 mg
<b>Verification scale interval [e]</b>	1 mg	1 mg	1 mg
<b>Tare range</b>	-52 g	-220 g	-110 g
<b>Standard repeatability [5% Max]</b>	0,005 mg	0,005 mg	0,005 mg
<b>Standard repeatability [Max]</b>	0,01 mg	0,06 mg	0,02 mg
<b>Standard minimum weight (USP)</b>	10 mg	10 mg	10 mg
<b>Standard minimum weight (U=1%, k=2)</b>	1 mg	1 mg	1 mg
<b>Permissible repeatability [5% Max]</b>	0,012 mg	0,012 mg	0,012 mg
<b>Permissible repeatability [Max]</b>	0,02 mg	0,08 mg	0,03 mg
<b>Linearity</b>	±0,03 mg	±0,06 / 0,2 mg	±0,06 mg
<b>Eccentric load deviation</b>	0,03 mg	0,2 mg	0,06 mg
<b>Sensitivity time drift</b>	1×10 <sup>-6</sup> /Year×Rt	1×10 <sup>-6</sup> /Year×Rt	1×10 <sup>-6</sup> /Year×Rt
<b>Stabilization time</b>	4 s	4 s	4 s
<b>Adjustment</b>	internal (automatic)	internal (automatic)	internal (automatic)
<b>OIML Class</b>	I	I	I
<b>Physical parameters</b>			
<b>Leveling system</b>	semi-automatic - LevelSENSING	semi-automatic - LevelSENSING	semi-automatic - LevelSENSING
<b>Display</b>	10" touchscreen	10" touchscreen	10" touchscreen
<b>Protection class</b>	IP 43	IP 43	IP 43
<b>Delivery components</b>	Analytical Balance, weighing pan, weighing pan shield, centring ring, bottom cover, brush, fabric dust cover, power supply.	Analytical Balance, weighing pan, weighing pan shield, centring ring, bottom cover, brush, fabric dust cover, power supply.	Analytical Balance, weighing pan, weighing pan shield, centring ring, bottom cover, brush, fabric dust cover, power supply.
<b>Weighing chamber dimensions</b>	168×160×228 mm	168×160×228 mm	168×160×228 mm
<b>Weighing pan dimensions</b>	ø90 + ø85 (option) mm	ø90 + ø85 (option) mm	ø90 + ø85 (option) mm
<b>Packaging dimensions</b>	492×595×750 mm	435 x 885 x 540 mm	492×595×750 mm
<b>Net weight</b>	9,8 kg	9,8 kg	9,8 kg
<b>Gross weight</b>	16 kg	14,3 kg	14,3 kg
<b>Communication interface</b>			
<b>Communication interface</b>	USB-A ×2, USB-C, HDMI, Ethernet, Wi-Fi, Hotspot	USB-A ×2, USB-C, HDMI, Ethernet, Wi-Fi, Hotspot	USB-A ×2, USB-C, HDMI, Ethernet, Wi-Fi, Hotspot
<b>Electrical parameters</b>			
<b>Power supply</b>	Adapter: 100 – 240V AC 50/60Hz 1A; 15V DC 2,4A Balance: 12 – 15V DC 1,6A max*	Adapter: 100 – 240V AC 50/60Hz 1A; 15V DC 2,4A Balance: 12 – 15V DC 1,6A max*	Adapter: 100 – 240V AC 50/60Hz 1A; 15V DC 2,4A Balance: 12 – 15V DC 1,6A max*
<b>Environmental conditions</b>			
<b>Operating temperature</b>	+10 – +40 °C	+10 – +40 °C	+10 – +40 °C
<b>Operating temperature change rate</b>	±0,3°C/1h (±1°C/8h)	±0,3°C/1h (±1°C/8h)	±0,3°C/1h (±1°C/8h)
<b>Relative humidity</b>	20% – 80%	20% – 80%	20% – 80%
<b>Relative humidity change rate</b>	±1%/h (±4%/8h)	±1%/h (±4%/8h)	±1%/h (±4%/8h)

\* The power supply can be connected to the socket on the back of the balance housing or to the terminal.

# Datasheet

	XA 120/250.5Y Analytical Balance	XA 210.5Y Analytical Balance	XA 220.5Y Analytical Balance
<b>Metrological parameters</b>			
Maximum capacity [Max]	120 / 250 g	210 g	220 g
Minimum load	10 mg	1 mg	10 mg
Readability [d]	0,01 / 0,1 mg	0,01 mg	0,1 mg
Verification scale interval [e]	1 mg	1 mg	1 mg
Tare range	-250 g	-210 g	-220 g
Standard repeatability [5% Max]	0,005 mg	0,005 mg	0,05 mg
Standard repeatability [Max]	0,06 mg	0,025 mg	0,08 mg
Standard minimum weight (USP)	10 mg	10 mg	100 mg
Standard minimum weight (U=1%, k=2)	1 mg	1 mg	10 mg
Permissible repeatability [5% Max]	0,012 mg	0,012 mg	0,07 mg
Permissible repeatability [Max]	0,1 mg	0,035 mg	0,1 mg
Linearity	±0,06 / 0,2 mg	±0,1 mg	±0,2 mg
Eccentric load deviation	0,2 mg	0,1 mg	0,2 mg
Sensitivity time drift	1×10 <sup>-6</sup> /Year×Rt	1×10 <sup>-6</sup> /Year×Rt	1×10 <sup>-6</sup> /Year×Rt
Stabilization time	4 s	4 s	1,3 s
Adjustment	internal (automatic)	internal (automatic)	internal (automatic)
OIML Class	I	I	I
<b>Physical parameters</b>			
Leveling system	semi-automatic - LevelSENSING	semi-automatic - LevelSENSING	semi-automatic - LevelSENSING
Display	10" touchscreen	10" touchscreen	10" touchscreen
Protection class	IP 43	IP 43	IP 43
Delivery components	Analytical Balance, weighing pan, weighing pan shield, centring ring, bottom cover, brush, fabric dust cover, power supply.	Analytical Balance, weighing pan, weighing pan shield, centring ring, bottom cover, brush, fabric dust cover, power supply.	Analytical Balance, weighing pan, weighing pan shield, bottom cover, brush, fabric dust cover, power supply.
Weighing chamber dimensions	168×160×228 mm	168×160×228 mm	168×160×228 mm
Weighing pan dimensions	ø90 + ø85 (option) mm	ø90 + ø85 (option) mm	ø100 mm
Packaging dimensions	435 x 885 x 540 mm	435 x 885 x 540 mm	435 x 885 x 540 mm
Net weight	9,8 kg	9,8 kg	9,8 kg
Gross weight	14,3 kg	14,3 kg	14,3 kg
<b>Communication interface</b>			
Communication interface	USB-A ×2, USB-C, HDMI, Ethernet, Wi-Fi, Hotspot	USB-A ×2, USB-C, HDMI, Ethernet, Wi-Fi, Hotspot	USB-A ×2, USB-C, HDMI, Ethernet, Wi-Fi, Hotspot
<b>Electrical parameters</b>			
Power supply	Adapter: 100 – 240V AC 50/60Hz 1A; 15V DC 2,4A Balance: 12 – 15V DC 1,6A max*	Adapter: 100 – 240V AC 50/60Hz 1A; 15V DC 2,4A Balance: 12 – 15V DC 1,6A max*	Adapter: 100 – 240V AC 50/60Hz 1A; 15V DC 2,4A Balance: 12 – 15V DC 1,6A max*
<b>Environmental conditions</b>			
Operating temperature	+10 – +40 °C	+10 – +40 °C	+10 – +40 °C
Operating temperature change rate	±0,3°C/1h (±1°C/8h)	±0,3°C/1h (±1°C/8h)	±0,3°C/1h (±1°C/8h)
Relative humidity	20% – 80%	20% – 80%	20% – 80%
Relative humidity change rate	±1%/h (±4%/8h)	±1%/h (±4%/8h)	±1%/h (±4%/8h)

\* The power supply can be connected to the socket on the back of the balance housing or to the terminal.

# Datasheet

	XA 310.5Y Analytical Balance	XA 520.5Y Analytical Balance
<b>Metrological parameters</b>		
Maximum capacity [Max]	310 g	520 g
Minimum load	10 mg	-
Readability [d]	0,1 mg	0,1 mg
Verification scale interval [e]	1 mg	-
Tare range	-310 g	-520 g
Standard repeatability [5% Max]	0,05 mg	0,07 mg
Standard repeatability [Max]	0,1 mg	0,18 mg
Standard minimum weight (USP)	100 mg	140 mg
Standard minimum weight (U=1%, k=2)	10 mg	14 mg
Permissible repeatability [5% Max]	0,07 mg	0,12 mg
Permissible repeatability [Max]	0,15 mg	0,25 mg
Linearity	±0,3 mg	±0,5 mg
Eccentric load deviation	0,3 mg	0,4 mg
Sensitivity time drift	$1 \times 10^{-6} / \text{Year} \times \text{Rt}$	$1 \times 10^{-6} / \text{Year} \times \text{Rt}$
Stabilization time	1,3 s	1,3 s
Adjustment	internal (automatic)	internal (automatic)
OIML Class	I	-
<b>Physical parameters</b>		
Leveling system	semi-automatic - LevelSENSING	semi-automatic - LevelSENSING
Display	10" touchscreen	10" touchscreen
Protection class	IP 43	IP 43
Delivery components	Analytical Balance, weighing pan, weighing pan shield, bottom cover, brush, fabric dust cover, power supply.	Analytical Balance, weighing pan, weighing pan shield, bottom cover, brush, fabric dust cover, power supply.
Weighing chamber dimensions	168×160×228 mm	168×160×228 mm
Weighing pan dimensions	ø100 mm	ø100 mm
Packaging dimensions	435 x 885 x 540 mm	435 x 885 x 540 mm
Net weight	9,8 kg	9,8 kg
Gross weight	14,3 kg	14,3 kg
<b>Communication interface</b>		
Communication interface	USB-A x2, USB-C, HDMI, Ethernet, Wi-Fi, Hotspot	USB-A x2, USB-C, HDMI, Ethernet, Wi-Fi, Hotspot
<b>Electrical parameters</b>		
Power supply	Adapter: 100 – 240V AC 50/60Hz 1A; 15V DC 2,4A Balance: 12 – 15V DC 1,6A max*	Adapter: 100 – 240V AC 50/60Hz 1A; 15V DC 2,4A Balance: 12 – 15V DC 1,6A max*
<b>Environmental conditions</b>		
Operating temperature	+10 – +40 °C	+10 – +40 °C
Operating temperature change rate	±0,3°C/1h (±1°C/8h)	±0,3°C/1h (±1°C/8h)
Relative humidity	20% – 80%	20% – 80%
Relative humidity change rate	±1%/h (±4%/8h)	±1%/h (±4%/8h)

\* The power supply can be connected to the socket on the back of the balance housing or to the terminal.

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

## Accessories

Adapter for Pipette Calibration  
 Barcode scanners  
 Holders for laboratory flasks  
 Density determination KIT  
 Holders for test tubes and filters  
 Professional weighing table  
 Protective cover for balances  
 USB Hubs  
 Label Printers

THBR 2.0 System - Ambient Conditions Monitoring  
 Under-Pan Weighing Rack  
 Anti-Draft Chamber for XA 4Y and XA 5Y Balances  
 Weighing dishes  
 Receipt Printer  
 Fingerprint Reader  
 RS 232 – USB Converter  
 RS 232, RS 485 cables  
 Under-pan weighing

## Software

RAD-KEY  
 Label Editor R02  
 R-LAB  
 RADWAG Development Studio

LabVIEW Driver  
 RADWAG Remote Desktop  
 Scales Editor 2.1  
 R.Barcode

## Device dimensions

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