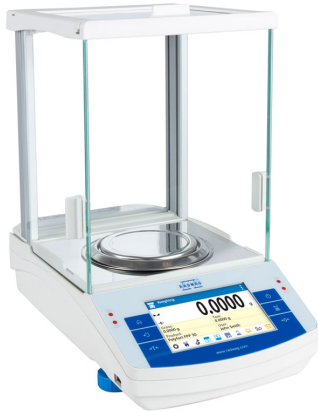


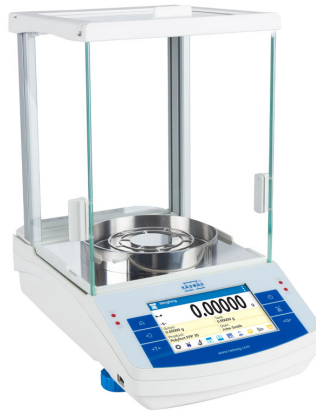


AS 520.X2 PLUS Analytical Balance, AS 82/220.X2 PLUS Analytical Balance, AS 160.X2 PLUS Analytical Balance, AS 120.X2 PLUS Analytical Balance, AS 60/220.X2 PLUS Analytical Balance, AS 3100.X2 PLUS Analytical Balance, AS 62.X2 PLUS Analytical Balance, AS 220.X2 PLUS Analytical Balance, AS 310.X2 PLUS Analytical Balance

More information on the website
radwag.com/en/info,w1,B6V



AS 520.X2 PLUS Analytical Balance
AS 160.X2 PLUS Analytical Balance
AS 220.X2 PLUS Analytical Balance
AS 310.X2 PLUS Analytical Balance



AS 82/220.X2 PLUS Analytical Balance
AS 120.X2 PLUS Analytical Balance
AS 60/220.X2 PLUS Analytical Balance
AS 62.X2 PLUS Analytical Balance



AS 3100.X2 PLUS 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



Density determination



Ambient conditions monitoring



Replaceable unit



Statistical Quality Control



ALIBI Memory



Mass for titrator



Wi-Fi

Datasheet

	AS 3100.X2 PLUS Analytical Balance	AS 60/220.X2 PLUS Analytical Balance	AS 62.X2 PLUS Analytical Balance
Metrological parameters			
Maximum capacity [Max]	3,1 kg	60 / 220 g	62 g
Minimum load	-	1 mg	1 mg
Readability [d]	1 mg	0,01 / 0,1 mg	0,01 mg
Verification unit [e]	-	1 mg	1 mg
Tare range	-3,1 kg	-220 g	-62 g
Standard repeatability [5% Max]	0,5 mg	0,01 mg	0,01 mg
Standard repeatability [Max]	0,6 mg	0,06 mg	0,017 mg
Standard minimum weight (USP)	1 g	20 mg	20 mg
Standard minimum weight (U=1%, k=2)	100 mg	2 mg	2 mg
Permissible repeatability [5% Max]	0,8 mg	0,02 mg	0,02 mg
Permissible repeatability [Max]	1 mg	0,1 mg	0,03 mg
Linearity	±4 mg	±0,05/0,2 mg	±0,05 mg
Stabilization time	2 s	2 s	3 s
Adjustment	internal (automatic)	internal (automatic)	internal (automatic)
OIML Class	-	I	I
Physical parameters			
Leveling system	semi-automatic - LevelSENSING	semi-automatic - LevelSENSING	semi-automatic - LevelSENSING
Display	5" graphic color touchscreen	5" graphic color touchscreen	5" graphic color touchscreen
Weighing chamber doors	manual	manual	manual
Delivery components	Balance, weighing pan, weighing pan shield, centring ring, bottom cover, power supply.	Balance, weighing pan, weighing pan shield, centring ring, bottom cover, power supply, fabric dust cover.	Balance, weighing pan, weighing pan shield, centring ring, bottom cover, power supply, fabric dust cover.
Weighing chamber dimensions	190×190×222 mm	190×190×222 mm	190×190×222 mm
Weighing pan dimensions	ø90 mm (open-work pan)	ø90 open-work pan + ø85 (option) mm	ø90 open-work pan + ø85 (option) mm
Packaging dimensions	545×455×575 mm	545×455×575 mm	545×455×575 mm
Net weight	7,3 kg	7,3 kg	7,31 kg
Gross weight	9,3 kg	10,5 kg	10,5 kg
Construction			
Protection class	IP 43	IP 43	IP 43
Components and software			
Database capacity	7	7	7
Features of use			
Touch-free operation	2 IR Sensors	2 IR Sensors	2 IR Sensors
Communication interface			
Communication interface	RS232 ¹ , 2×USB-A (interchangeable), USB-B, Wi-Fi, Ethernet	RS232 ¹ , 2×USB-A (interchangeable), USB-B, Wi-Fi, Ethernet	RS232 ¹ , 2×USB-A (interchangeable), USB-B, Wi-Fi, Ethernet
Electrical parameters			
Power supply	Adapter: 100 – 240V AC 50/60Hz 0,6A; 12V DC 1,2A Balance: 12 – 15V DC 0,8A max	Adapter: 100 – 240V AC 50/60Hz 0,6A; 12V DC 1,2A Balance: 12 – 15V DC 0,8A max	Adapter: 100 – 240V AC 50/60Hz 0,6A; 12V DC 1,2A Balance: 12 – 15V DC 0,8A max
Power consumption max.	4 W	4 W	4 W
Environmental conditions			
Operating temperature	+10 ÷ +40 °C	+10 ÷ +40 °C	+10 ÷ +40 °C
Ambient conditions monitoring	THBR 2.0 System, THBR BOX, THB P, THB W, THB S	THBR 2.0 System, THBR BOX, THB P, THB W, THB S	THBR 2.0 System, THBR BOX, THB P, THB W, THB S
Relative humidity	40% ÷ 80%	40% ÷ 80%	40% ÷ 80%

Repeatability is expressed as a standard deviation from 10 weighing cycles. Stabilization time depends on the ambient conditions and the

dynamics of weighing pan loading; specified for FAST profile. 1 Barcode scanners, available as weighing instrument accessory, communicate with the instrument via RS232 interface exclusively.

Datasheet

	AS 82/220.X2 PLUS Analytical Balance	AS 120.X2 PLUS Analytical Balance	AS 160.X2 PLUS Analytical Balance
Metrological parameters			
Maximum capacity [Max]	82 / 220 g	120 g	160 g
Minimum load	1 mg	1 mg	10 mg
Readability [d]	0,01 / 0,1 mg	0,01 mg	0,1 mg
Verification unit [e]	1 mg	1 mg	1 mg
Tare range	-220 g	-120 g	-160 g
Standard repeatability [5% Max]	0,01 mg	0,01 mg	0,06 mg
Standard repeatability [Max]	0,06 mg	0,025 mg	0,07 mg
Standard minimum weight (USP)	20 mg	20 mg	120 mg
Standard minimum weight (U=1%, k=2)	2 mg	2 mg	12 mg
Permissible repeatability [5% Max]	0,02 mg	0,02 mg	0,09 mg
Permissible repeatability [Max]	0,1 mg	0,04 mg	0,1 mg
Linearity	±0,05/0,2 mg	±0,07 mg	±0,2 mg
Stabilization time	2 s	2 s	2 s
Adjustment	internal (automatic)	internal (automatic)	internal (automatic)
OIML Class	I	I	I
Physical parameters			
Leveling system	semi-automatic - LevelSENSING	semi-automatic - LevelSENSING	semi-automatic - LevelSENSING
Display	5" graphic color touchscreen	5" graphic color touchscreen	5" graphic color touchscreen
Weighing chamber doors	manual	manual	manual
Delivery components	Balance, weighing pan, weighing pan shield, centring ring, bottom cover, power supply, fabric dust cover.	Balance, weighing pan, weighing pan shield, centring ring, bottom cover, power supply, fabric dust cover.	Balance, weighing pan, weighing pan shield, centring ring, bottom cover, power supply.
Weighing chamber dimensions	190×190×222 mm	190×190×222 mm	190×190×222 mm
Weighing pan dimensions	ø90 open-work pan + ø85 (option) mm	ø90 open-work pan + ø85 (option) mm	ø100 mm
Packaging dimensions	545×455×575 mm	545×455×575 mm	490×400×520 mm
Net weight	7,14 kg	7,3 kg	7,3 kg
Gross weight	10,5 kg	9,3 kg	9 kg
Construction			
Protection class	IP 43	IP 43	IP 43
Components and software			
Database capacity	7	7	7
Features of use			
Touch-free operation	2 IR Sensors	2 IR Sensors	2 IR Sensors
Communication interface			
Communication interface	RS232 ¹ , 2×USB-A (interchangeable), USB-B, Wi-Fi, Ethernet	RS232 ¹ , 2×USB-A (interchangeable), USB-B, Wi-Fi, Ethernet	RS232 ¹ , 2×USB-A (interchangeable), USB-B, Wi-Fi, Ethernet
Electrical parameters			
Power supply	Adapter: 100 – 240V AC 50/60Hz 0,6A; 12V DC 1,2A Balance: 12 – 15V DC 0,8A max	Adapter: 100 – 240V AC 50/60Hz 0,6A; 12V DC 1,2A Balance: 12 – 15V DC 0,8A max	Adapter: 100 – 240V AC 50/60Hz 0,6A; 12V DC 1,2A Balance: 12 – 15V DC 0,8A max
Power consumption max.	4 W	4 W	4 W
Environmental conditions			
Operating temperature	+10 ÷ +40 °C	+10 ÷ +40 °C	+10 ÷ +40 °C
Ambient conditions monitoring	THBR 2.0 System, THBR BOX, THB P, THB W, THB S	THBR 2.0 System, THBR BOX, THB P, THB W, THB S	THBR 2.0 System, THBR BOX, THB P, THB W, THB S
Relative humidity	40% ÷ 80%	40% ÷ 80%	40% ÷ 80%

Repeatability is expressed as a standard deviation from 10 weighing cycles. Stabilization time depends on the ambient conditions and the dynamics of weighing pan loading; specified for FAST profile. 1 Barcode scanners, available as weighing instrument accessory, communicate with the instrument via RS232 interface exclusively.

Datasheet

	AS 220.X2 PLUS Analytical Balance	AS 310.X2 PLUS Analytical Balance	AS 520.X2 PLUS Analytical Balance
Metrological parameters			
Maximum capacity [Max]	220 g	310 g	520 g
Minimum load	10 mg	10 mg	-
Readability [d]	0,1 mg	0,1 mg	0,1 mg
Verification unit [e]	1 mg	1 mg	-
Tare range	-220 g	-310 g	-520 g
Standard repeatability [5% Max]	0,06 mg	0,07 mg	0,07 mg
Standard repeatability [Max]	0,07 mg	0,1 mg	0,2 mg
Standard minimum weight (USP)	120 mg	140 mg	140 mg
Standard minimum weight (U=1%, k=2)	12 mg	14 mg	14 mg
Permissible repeatability [5% Max]	0,09 mg	0,12 mg	0,12 mg
Permissible repeatability [Max]	0,1 mg	0,15 mg	0,4 mg
Linearity	±0,2 mg	±0,3 mg	±0,6 mg
Stabilization time	2 s	2,5 s	2,5 s
Adjustment	internal (automatic)	internal (automatic)	internal (automatic)
OIML Class	I	I	I
Physical parameters			
Leveling system	semi-automatic - LevelSENSING	semi-automatic - LevelSENSING	semi-automatic - LevelSENSING
Display	5" graphic color touchscreen	5" graphic color touchscreen	5" graphic color touchscreen
Weighing chamber doors	manual	manual	manual
Delivery components	Balance, weighing pan, weighing pan shield, bottom cover, power supply.	Balance, weighing pan, weighing pan shield, bottom cover, power supply.	Balance, weighing pan, weighing pan shield, bottom cover, power supply.
Weighing chamber dimensions	190×190×222 mm	190×190×222 mm	190×190×222 mm
Weighing pan dimensions	ø100 mm	ø100 mm	ø100 mm
Packaging dimensions	490×400×520 mm	490×400×520 mm	490×400×520 mm
Net weight	7,06 kg	7,32 kg	7,3 kg
Gross weight	8,5 kg	9 kg	9 kg
Construction			
Protection class	IP 43	IP 43	IP 43
Components and software			
Database capacity	7	7	7
Features of use			
Touch-free operation	2 IR Sensors	2 IR Sensors	2 IR Sensors
Communication interface			
Communication interface	RS232 ¹ , 2×USB-A (interchangeable), USB-B, Wi-Fi, Ethernet	RS232, 2×USB-A (interchangeable), USB-B, Wi-Fi, Ethernet	RS232 ¹ , 2×USB-A (interchangeable), USB-B, Wi-Fi, Ethernet
Electrical parameters			
Power supply	Adapter: 100 – 240V AC 50/60Hz 0,6A; 12V DC 1,2A Balance: 12 – 15V DC 0,8A max	Adapter: 100 – 240V AC 50/60Hz 0,6A; 12V DC 1,2A Balance: 12 – 15V DC 0,8A max	Adapter: 100 – 240V AC 50/60Hz 0,6A; 12V DC 1,2A Balance: 12 – 15V DC 0,8A max
Power consumption max.	4 W	4 W	4 W
Environmental conditions			
Operating temperature	+10 ÷ +40 °C	+10 ÷ +40 °C	+10 ÷ +40 °C
Ambient conditions monitoring	THBR 2.0 System, THBR BOX, THB P, THB W, THB S	THBR 2.0 System, THBR BOX, THB P, THB W, THB S	THBR 2.0 System, THBR BOX, THB P, THB W, THB S
Relative humidity	40% ÷ 80%	40% ÷ 80%	40% ÷ 80%

Repeatability is expressed as a standard deviation from 10 weighing cycles. Stabilization time depends on the ambient conditions and the

dynamics of weighing pan loading; specified for FAST profile. 1 Barcode scanners, available as weighing instrument accessory, communicate with the instrument via RS232 interface exclusively.

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



Accessories

Antivibration Tables
Holders for laboratory flasks
Power Adapters
Cigarette lighter receptacle power supply cables
Density determination KIT
USB cable (scale - printer)
Professional Weighing Tables
Barcode scanners
Holders for test tubes and filters
Workstation for Pipettes Calibration
RS 232, RS 485 cables

THBR 2.0 System - Ambient Conditions Monitoring
Displays
Protective cover for balances
Weighing dishes
Antistatic ionizer
Receipt Printer
RS 232, RS 485 cables
Additional modules
Under-pan weighing
RS 232 cables (scale - printer)
RS 232 – RS 485 Converter

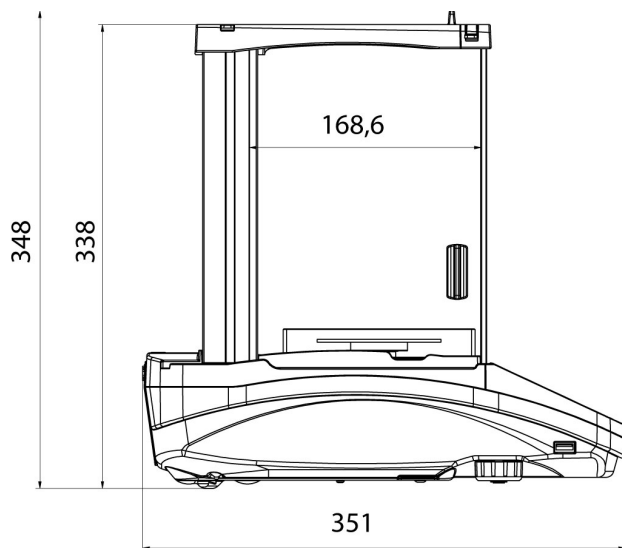
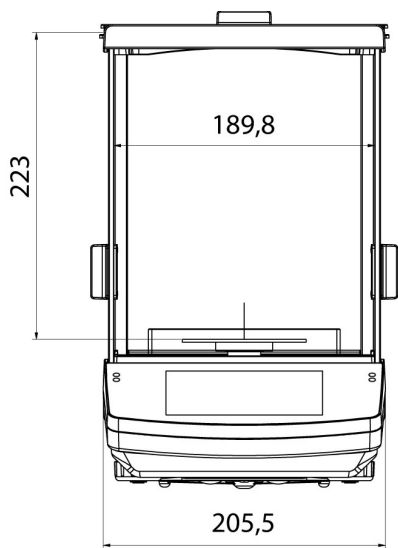
Software

RAD-KEY
R-LAB
RADWAG Development Studio

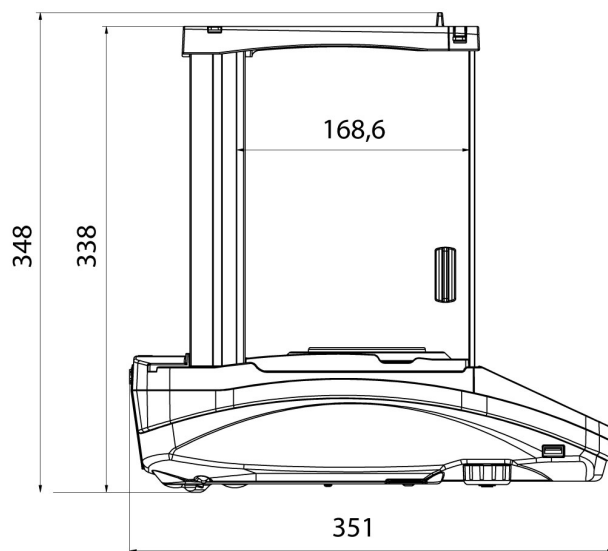
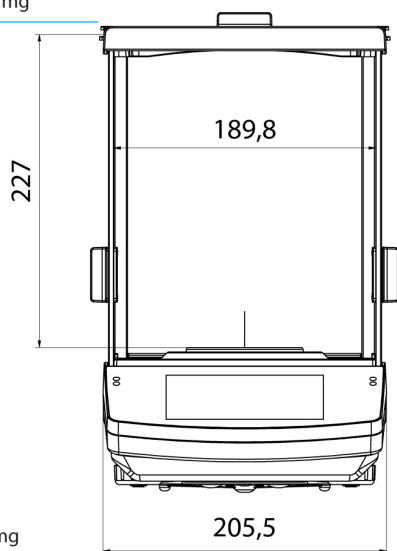
Alibi Reader
Scales Editor 2.1

Device dimensions

AS 520.X2 PLUS Analytical Balance, AS 82/220.X2 PLUS Analytical Balance, AS 160.X2 PLUS Analytical Balance, AS 120.X2 PLUS Analytical Balance, AS 60/220.X2 PLUS Analytical Balance, AS 3100.X2 PLUS Analytical Balance, AS 62.X2 PLUS Analytical Balance, AS 220.X2 PLUS Analytical Balance, AS 310.X2 PLUS Analytical Balance



AS X2 PLUS, d = 0.01 mg



AS X2 PLUS, d = 0.1 mg