



RADWAG BALANCES AND SCALES
ADVANCED WEIGHING TECHNOLOGIES



X2 Series Balances

Innovative Functional Solutions

X2 Synergy

The X2 series embodies the synergy between conventional solutions characteristic of high quality balances, and technology intended mainly for professional standards.

The combination provides you with a high-tech instrument offering pinpoint accuracy and maximum ease of operation at a price typical of lesser devices.

- 5" color capacitive touchscreen
- Display customization with widgets
- Multilingual, interactive menu
- Sensors for touch-free operation
- Conformity with GLP and GMP regulations
- Dynamically controlled sample weight (bar graph)
- Statistics, formulations, reports and printouts
- Unlimited communication possibilities
- Alibi memory with record of measurements
- Complex databases
- Maximum comfort of operation

Home screen

- A** Home screen button
- B** Exit (returning to the previous screen) button
- C** Taring button
- D** On/Off button
- E** Enter/Print button
- F** Zeroing button
- G** Status bar (working mode, metrologically important parameters)
- H** Measurement indication area
- I** Information desktop
- J** Quick access toolbar for the direct operation of balance functions and settings
- K** Current working mode setup
- L** Sensors for touch-free operation



X2 SYNERGY



AS.X2 analytical balances

Max: up to 310 g
d: from 0,01 mg
Weighing pan: ø90, ø100 mm



PS.X2 precision balances

Max: up to 1000 g
d: from 1 mg
Weighing pan: 128 × 128 mm



PS.X2 precision balances

Max: up to 10000 g
d: from 10 mg
Weighing pan: 195 × 195 mm



APP.X2 precision balances

Max: up to 35 kg
d: from 0,01 g
Weighing pan: 348 × 260 mm

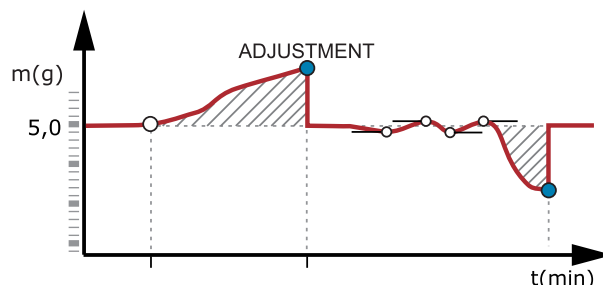
ENERGY

The X2 series as a standard for quality



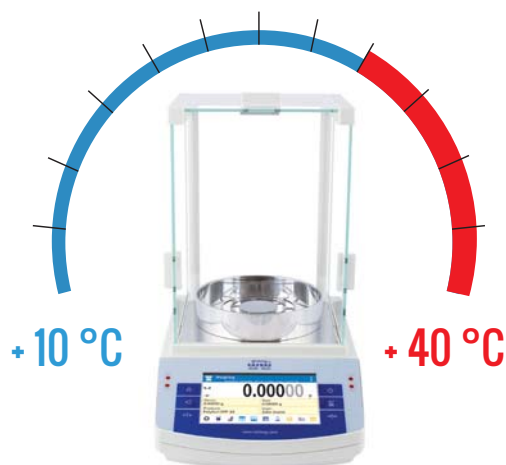
Accuracy of each weighing indication

X2 series balances with an automatic adjustment system, using an internal adjustment weight, guarantee reliable measurement. Regardless of ambient conditions, the system provides effective elimination of any balance sensitivity deviations.



Accuracy for any temperature

Accuracy is one of the most significant parameters influencing metrological characteristics of the weighing device. The production and control system designed for X2 balances monitors and adjusts for accuracy in changing temperatures. With minimized deviation of results, the X2 series ensures great measurement stability for wide temperature range.



Accuracy for any conditions

The multi-shield mechanical design of X2 series balances offers effective protection against the influence of ambient conditions. With such design, the X2 series stands for the fast and reliable measurement of either light or heavy loads, even when ambient conditions pose challenges.



Quality begins with precision



The optimization of X2 structural components provides measurements repeatability – the pivotal parameter for several analytical processes.

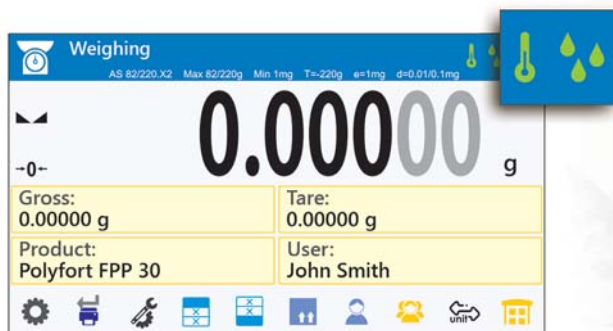
Speed operation time optimization



The X2 series is a product of both, measuring systems development, and progress when it comes to measuring signals monitoring methodology. With our X2 series balances, you are offered solutions that guarantee a full range of settings providing the right sensitivity for measurements performed within seconds.

Ambient conditions monitoring

Information on fluctuating ambient conditions is essential in measuring devices characterized by high resolution. For your comfort, X2 series balances have been equipped with system that signals the dynamics of temperature changes with a special symbol. This is especially useful while installing your device (acclimatization period), and when the working environment shows its changeable nature.



Redefined functionality

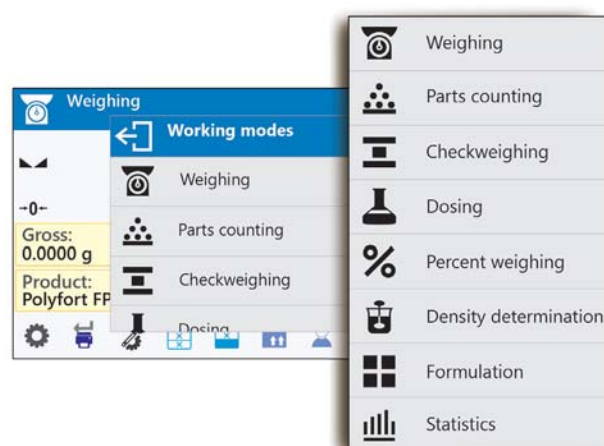
Buttons customization

Customized buttons facilitate the selection of weighing units, packaging, customers, and variable tare values adding to the fast and solid performance of the weighing process. User-designed key, tailored to the user's needs, can be assigned to a particular working mode, boosting your balance's functionality.



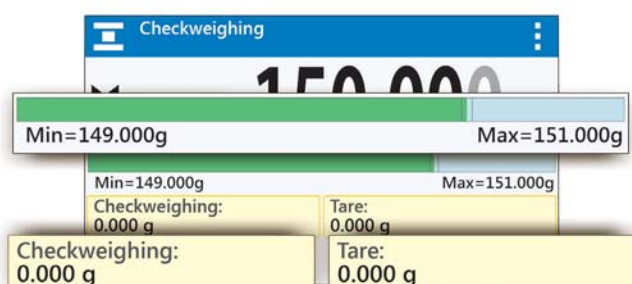
Clear information arrangement even greater ease of operation

Priority for our X2 series balances is ease of operation and intuitive communication with the user. Clear information presented by symbols provides even more user-friendly operation.



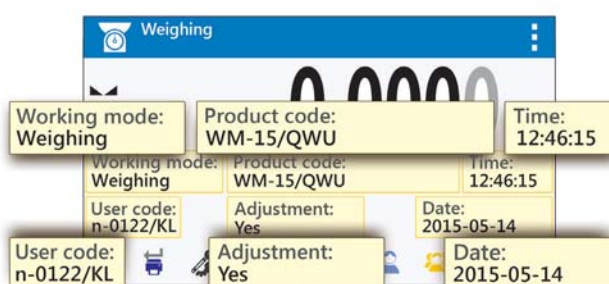
Labels design your own onscreen labels

X2 balances feature labels – pre-defined information fields providing various data, e.g. product name, user, date and time or bar graph. Labels names and values are not intended for modification but it is the user who decides which labels are to be displayed.



Text fields adapt the text field to your own needs

Text fields and labels feature similar characteristics, but text fields, unlike labels, can be freely created and configured by a user. It is possible to provide each text field with an individual name, function and value. In addition, you can decide on the particular text field size and location.



Databases ergonomics for your weighing process

The IT structure of X2 series balances is based on structural databases. Freely programmed database content favours the creation of a dedicated information network, wherein the network precisely suits the nature of any performed process.

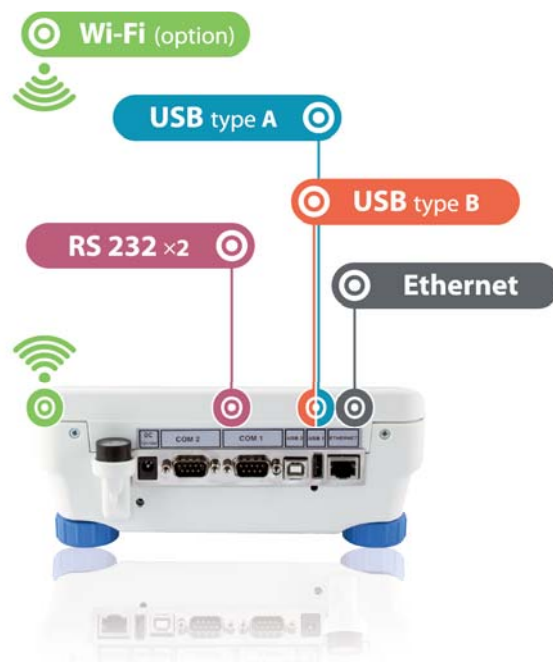


Databases comprise the following components:

- 100 users
- 100 packaging types
- 100 warehouses
- 100 formulations
- 200 formula reports
- 500 density reports
- 1 000 customers
- 5 000 products
- 50 000 weighings
- 500 000 ALIBI records

Communication interfaces

With various means of communication, the possibilities of X2 series balances are even more enhanced when it comes to information storage. Standard cable connections are realized via USB-A and USB-B or RS 232 ports. As for wireless connection, Wi-Fi networking technology is used by any RADWAG-manufactured software.



Data safety and monitoring

Protecting data user authorization levels

Three different authorization levels provide restricted access to confidential information for particular groups of users. An administrator manages authorization levels.



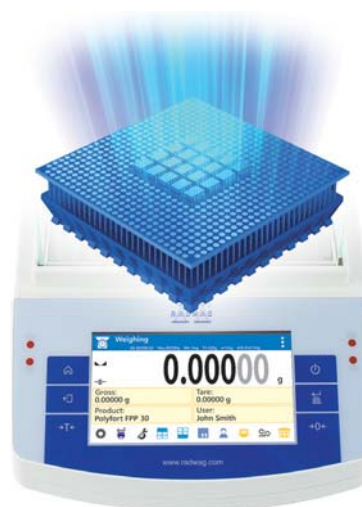
Data archiving and exchange

The USB interface facilitates the transfer of reports on processes and partial weighing to peripheral devices. This is especially useful for archiving and monitoring purposes. In addition, the USB interface allows copying of input databases.

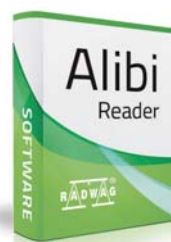


ALIBI memory secure storage of measurements

ALIBI memory offers effective data protection, and it allows 500 000 weighings. This guarantees safety and continuity of your vital data stored over long period of time.



Option of exporting data from ALIBI memory to your balance.



ALIBI Reader PC software enables the user to overview all weighings recorded in balance memory. The software allows printout of selected data and preparation of PDF and CSV (Excel) reports.

No.	Date and time	Serial number	Product code	Batch	Unit	Type	Preparation	Number of last digit center	Last digit value	Stability
1110	2014.01.01 12:18:18	12310000	U4824	13 1000	g	0.0000	A	0	0	No
1112	2014.01.01 12:18:18	12310000	U4824	17 1281	mg	0.0000	A	0	0	No
1113	2014.01.01 12:18:19	12310000	U4824	17 1273	mg	0.0000	A	0	0	No
1114	2014.01.01 12:18:19	12310000	U4824	17 1273	mg	0.0000	A	0	0	No
1115	2014.01.01 12:18:20	12310000	U4824	17 1273	mg	0.0000	A	0	0	No
1116	2014.01.01 12:18:20	12310000	U4824	8 9885	mg	0.0000	A	0	0	No
1117	2014.01.01 12:18:20	12310000	U4824	8 9885	mg	0.0000	A	0	0	No
1118	2014.01.01 12:18:21	12310000	U4824	8 9885	mg	0.0000	A	0	0	No
1119	2014.01.01 12:18:22	12310000	U4824	386 50	mg	0.00	2	0	0	No
1120	2014.01.01 12:18:22	12310000	U4824	386 50	mg	0.00	2	0	0	No
1121	2014.01.01 12:18:23	12310000	U4824	386 52	mg	0.00	2	0	0	No
1122	2014.01.01 12:18:23	12310000	U4824	386 52	mg	0.00	2	0	0	No
1123	2014.01.01 12:18:23	12310000	U4824	386 52	mg	0.00	2	0	0	No
1124	2014.01.01 12:18:24	12310000	U4824	186 76	g	0.00	2	0	0	No
1125	2014.01.01 12:18:24	12310000	U4824	186 81	g	0.00	2	0	0	No
1126	2014.01.01 12:18:25	12310000	U4824	186 82	g	0.00	2	0	0	No
1127	2014.01.01 12:18:25	12310000	U4824	186 82	g	0.00	2	0	0	No
1128	2014.01.01 12:21:09	12310000	TR60	U4824	186 73	g	0.00	2	0	No
1129	2014.01.01 12:21:09	12310000	TR60	U4824	186 76	g	0.00	2	0	No
1130	2014.01.01 12:21:09	12310000	TR60	U4824	186 77	g	0.00	2	0	No
1131	2014.01.01 12:21:10	12310000	TR60	U4824	186 74	g	0.00	2	0	No
1132	2014.01.01 12:21:12	12310000	TR60	U4824	0.18075	kg	0.00000	5	0	No
1133	2014.01.01 12:21:12	12310000	TR60	U4824	0.18075	kg	0.00000	5	0	No
1134	2014.01.01 12:21:13	12310000	TR60	U4824	0.18075	kg	0.00000	5	0	No
1135	2014.01.01 12:21:13	12310000	TR60	U4824	0.18075	kg	0.00000	5	0	No
1136	2014.01.01 12:21:13	12310000	TR60	U4824	0.18075	kg	0.00000	5	0	No
1137	2014.01.01 12:21:13	12310000	TR60	U4824	0.18075	kg	0.00000	5	0	No

Reports and printouts

Customized reports

X2 series balances offer reports comprising three customized sections. As a user you have the green light for free modification of each section content.

Working mode	Weighing
Date	18.05.2015
Time	11:36:36
Balance type	AS 220.X2
Balance ID	2035
Product	PILL
User	John Smith
Net weight	0.8020 g
Tare	0.5000 g
Gross weight	1.3010 g
----- Calibration Report -----	
Calibration type	Internal
User	John Smith
Project	124/SGW/2015
Date	18.05.2015
Time	12:56:10
Balance ID	1035
Calibration difference	0.0000 g
Signature	

Sample report divided into three configurable sections: header, GLP printout and footer.

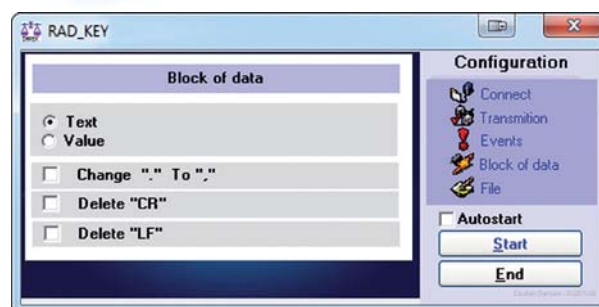
All X2 balances cooperate with computer printers supporting PCL standard. Communication between the devices is established via USB or RS 232 interface.

Printouts of measurements sent to PC software

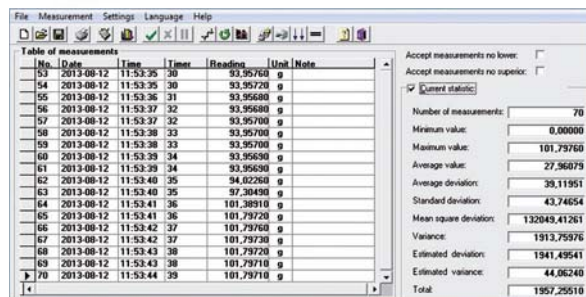
Measurements carried out by X2 series balance can be transferred directly to RAD-KEY and PW-WIN PC software.



RAD-KEY PC Software is designed to acquire your balance data, with the use of special HotKey, which is then entered into an active spreadsheet cell.



PW-WIN PC Software is designed to present measurements in a visual form, produce statistics, and export data to a spreadsheet.

A screenshot of the PW-WIN PC Software interface. It shows a 'Table of measurements' with columns for No., Date, Time, Times, Reading, Unit, and Note. The table contains 10 rows of data. To the right of the table is a statistics panel with various fields and values.

No.	Date	Time	Times	Reading	Unit	Note
53	2013-08-12	11:53:35	30	93.95760	g	
54	2013-08-12	11:53:35	30	93.95720	g	
55	2013-08-12	11:53:36	31	93.95680	g	
56	2013-08-12	11:53:37	32	93.95600	g	
57	2013-08-12	11:53:37	32	93.95700	g	
58	2013-08-12	11:53:38	33	93.95700	g	
59	2013-08-12	11:53:38	33	93.95700	g	
60	2013-08-12	11:53:39	34	93.95690	g	
61	2013-08-12	11:53:39	34	93.95690	g	
62	2013-08-12	11:53:40	35	94.02260	g	
63	2013-08-12	11:53:40	35	97.30490	g	
64	2013-08-12	11:53:41	36	101.38910	g	
65	2013-08-12	11:53:41	36	101.79720	g	
66	2013-08-12	11:53:42	37	101.79760	g	
67	2013-08-12	11:53:42	37	101.79730	g	
68	2013-08-12	11:53:43	38	101.79720	g	
69	2013-08-12	11:53:43	38	101.79710	g	
70	2013-08-12	11:53:44	39	101.79710	g	

Accept measurements no lower: ☐

Accept measurements no superior: ☐

☒ Current statistics

Number of measurements: 70

Minimum value: 0.00000

Maximum value: 101.79760

Average value: 27.96079

Average deviation: 30.11951

Standard deviation: 43.74654

Mean square deviation: 132049.41261

Variance: 1913.75976

Estimated deviation: 1941.49541

Estimated variance: 44.06240

Total: 1957.25510



Technical specification



AS.X2



PS.X2



APP.X2

Max capacity [Max]	60 g - 310 g	200 g - 10000 g	10 kg - 35 kg
Readability [d]	0.01 mg - 0.1 mg	1 mg - 100 mg	0.01g - 0.1 g
Weighing pan size	ø90 mm, ø100 mm, ø85 mm (option)	128 × 128 mm, 195 × 195 mm	348 × 260 mm
Stabilization time	3.5 s - 6 s	1.5 s - 3 s	2 s - 3 s
Adjustment	internal (automatic)	internal (automatic)	internal (automatic)
Display	5" color capacitive touchscreen	5" color capacitive touchscreen	5" color capacitive touchscreen
Interfaces	2 × RS 232, USB A, USB B, Ethernet, Wi-Fi (option)		

Verification **M**



Functions and technical specification of device are subject to change without prior notice

Optional equipment

- Barcode readers,
- PCL printers,
- USB keyboard,
- PC Software: PW-WIN, RAD-KEY and ALIBI Reader,
- Under-pan weighing rack,
- Anti-vibration tables,
- Draft shield,
- LCD WD-6 display,
- Density determination kit for solids and liquids.

Read QR code

and view complete
technical specification
of all X2 series balances



Optional equipment accessibility is conditioned by a particular model.

PC software



PW-WIN

Cooperation with a computer, measurements presentations, statistics.



RAD-KEY

Capturing balance data, inserting the data into a spreadsheet cell.



ALIBI Reader

Capturing balance data recorded in ALIBI memory.



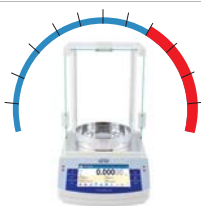
Features:



5" colour
capacitive
touchscreen



Databases



Wide operating
temperature range

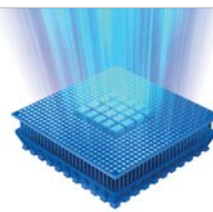


Interfaces:
2×RS232, Ethernet,
USB-A, USB-B, WiFi*

*option



Sensors for
touch-free
operation



ALIBI
Memory



Ambient
conditions
monitoring

Working mode	Weighing
Date	18.05.2015
Time	11:36:36
Balance type	AS 220.X2
Balance ID	2035
Product	PILL
User	John Smith
Net weight	0.8020 g

Customized
reports
and printouts

Functions:



Parts counting



Checkweighing



Dosing



Formulation



Percent weighing



Statistics



Animal weighing



Peak hold



Density Determination



GLP Procedures



Under-pan weighing



Autotest



Infrared sensors



Ambient conditions monitoring



Newton unit measurements



Units



ALIBI memory



Cooperation with titrators