



X2 series balances

INNOVATIVE FUNCTIONAL SOLUTIONS

X2 Synergy

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

Combination of the above qualities provides you with a high-tech instrument offering pinpoint accuracy and maximum comfort of operation for price typical of lower class devices.

- 5" colour capacitive touchscreen
- Display customization with use of widgets
- Multilingual, interactive menu
- Sensors for touch-free operation
- Conformity with GLP and GMP regulations
- Dynamically controlled sample weight (bargraph)
- Statistics, formulas, 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** Tarring button
- D** On/Off switch 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 direct operation of balance functions and settings
- K** Current working mode setup
- L** Sensors for touch-free operation





AS.X2 analytical balances

Max: up to 310 g
 d: from 0,01 mg
 Weighing pan: ø 70 or ø 85 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 10 kg
 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

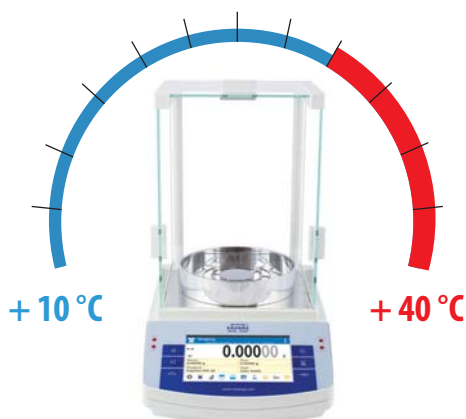
energy

The X2 series as standard for quality



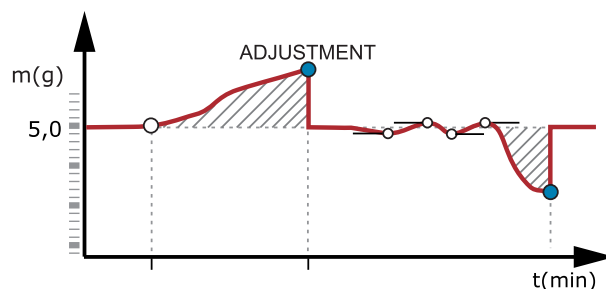
Accuracy for any temperature

Accuracy is one of the most significant parameters influencing metrological characteristics of the weighing device. Production and control system designed for X2 balances consists in monitoring and adjustment of accuracy obtained for changeable temperatures. With minimized deviation of indication, the X2 series ensures great measurement stability for wide temperature range.



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 ambient

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



Quality begins with precision



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

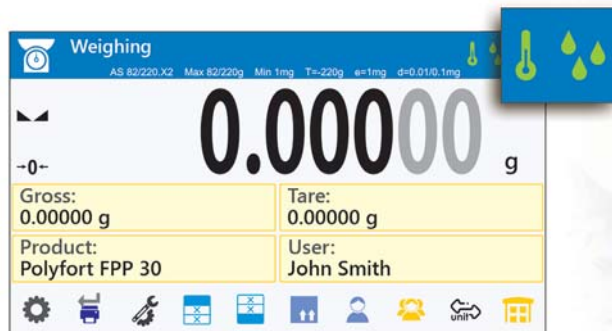
Speed operation time optimization



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

Ambient conditions monitoring

Information on fluctuating ambient conditions is essential in measuring devices characterized with high resolution. To your comfort, X2 series balances have been equipped with system, signalling dynamics of temperature changes, by a dedicated pictogram. You shall find it especially useful while installing your device (acclimatization period), and when the working environment shows its changeable nature.



Redefined functionality

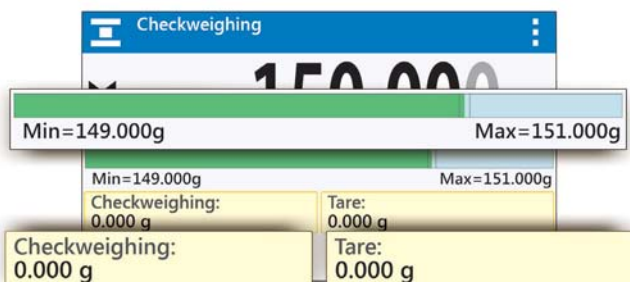
Buttons customization

Customized buttons facilitate selection of weighing units, packaging, customers, variable tare values at ease and thus they add to fast and solid performance of the weighing process. User-designed buttons set, tailored to the user's needs, can be assigned to a particular working mode, hence your balance functionality is considerably boosted.



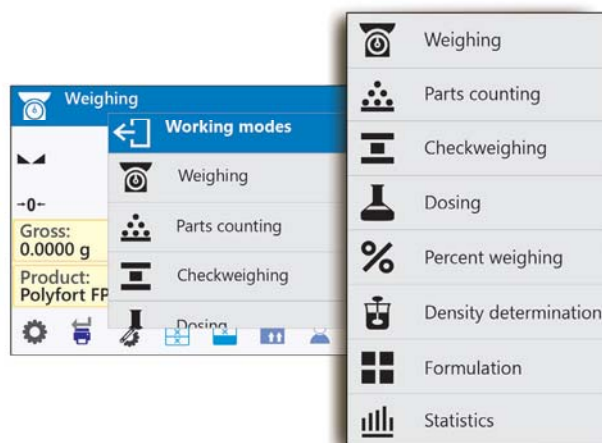
Labels design your own onscreen labels

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



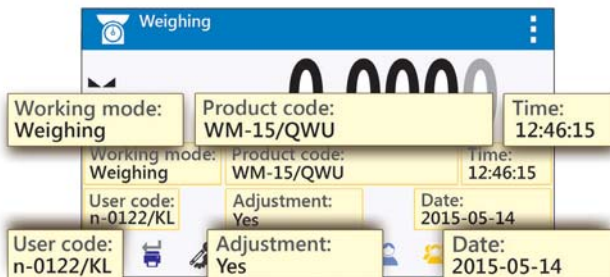
Clear information arrangement even greater ease of operation

Priority for our X2 series balances is ease of operation and intuitive communication with the user. Clear information arrangement presented in a form of pictograms provides even more user-friendly operation.



Text fields adapt the text field to your own needs

Text fields and labels feature similar characteristics, nevertheless text fields, contrary to 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

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

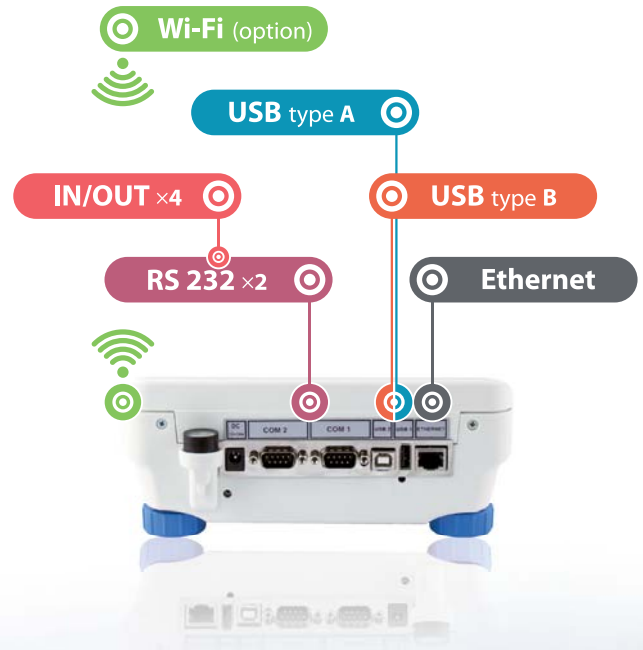


Databases comprise the following components:

- 100 users
- 100 packaging types
- 100 warehouses
- 100 formulas
- 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 storage of information. 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 group of users. Administrator manages authorization levels.



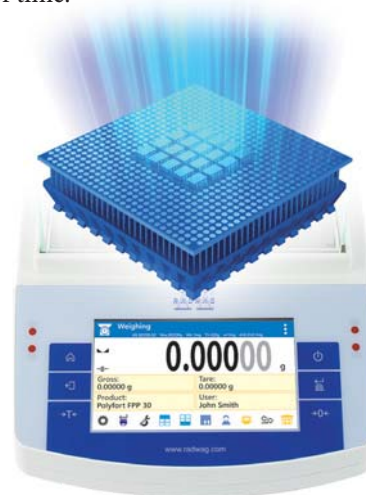
Data archiving and exchange

USB interface facilitates 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.

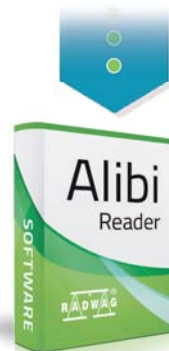


ALIBI memory secure storage of measurements

ALIBI memory offers effective data protection, it allows to record up to 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	User name	Product code	Result	Unit	Type	Precision	Number of sig. digit number	Last digit	Stability
1111	2014.01.01 12 19 19	12310000	UMD24	0.53260	g	0.0000	g	0	0	Yes
1112	2014.01.01 12 19 18	12310000	UMD24	17.1231	mg	0.0000	g	0	0	Yes
1113	2014.01.01 12 19 19	12310000	UMD24	17.1270	mg	0.0000	g	0	0	Yes
1114	2014.01.01 12 19 19	12310000	UMD24	17.1270	mg	0.0000	g	0	0	Yes
1115	2014.01.01 12 19 20	12310000	UMD24	17.1270	mg	0.0000	g	0	0	Yes
1116	2014.01.01 12 19 20	12310000	UMD24	9.9895	mg	0.0000	g	0	0	Yes
1117	2014.01.01 12 19 20	12310000	UMD24	9.9895	mg	0.0000	g	0	0	Yes
1118	2014.01.01 12 19 21	12310000	UMD24	9.9895	mg	0.0000	g	0	0	Yes
1119	2014.01.01 12 19 22	12310000	UMD24	398.50	mg	0.00	g	2	0	Yes
1120	2014.01.01 12 19 22	12310000	UMD24	398.50	mg	0.00	g	2	0	Yes
1121	2014.01.01 12 19 18	12310000	TRD2	198.80	g	0.00	g	2	0	Yes
1122	2014.01.01 12 19 20	12310000	TRD2	198.79	g	0.00	g	2	0	Yes
1123	2014.01.01 12 19 23	12310000	UMD24	398.52	mg	0.00	g	2	0	Yes
1124	2014.01.01 12 19 24	12310000	UMD24	398.52	mg	0.00	g	2	0	Yes
1125	2014.01.01 12 19 24	12310000	UMD24	198.81	g	0.00	g	2	0	Yes
1126	2014.01.01 12 19 25	12310000	UMD24	198.82	g	0.00	g	2	0	Yes
1127	2014.01.01 12 19 25	12310000	UMD24	198.80	g	0.00	g	2	0	Yes
1128	2014.01.01 12 21 09	12310000	TRD2	198.75	g	0.00	g	2	0	Yes
1129	2014.01.01 12 21 09	12310000	TRD2	198.76	g	0.00	g	2	0	Yes
1130	2014.01.01 12 21 09	12310000	TRD2	198.74	g	0.00	g	2	0	Yes
1131	2014.01.01 12 21 11	12310000	TRD2	198.74	g	0.00000	g	0	0	Yes
1132	2014.01.01 12 21 12	12310000	TRD2	0.19876	kg	0.00000	g	0	0	Yes
1133	2014.01.01 12 21 12	12310000	TRD2	0.19876	kg	0.00000	g	0	0	Yes
1134	2014.01.01 12 21 13	12310000	TRD2	0.19876	kg	0.00000	g	0	0	Yes
1135	2014.01.01 12 21 13	12310000	TRD2	0.19876	kg	0.00000	g	0	0	Yes
1136	2014.01.01 12 21 13	12310000	TRD2	0.19876	kg	0.00000	g	0	0	Yes

Reports and printouts

Customized reports

X2 series balances offer reports comprising three customized sections. As a user you have 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

Exemplary 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.

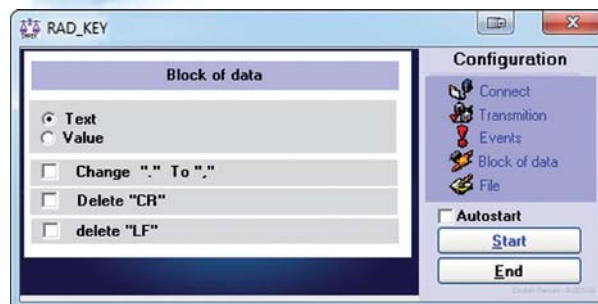
Printouts

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 software interface. The main window displays a 'Table of measurements' with columns for No., Date, Time, Timer, Reading, Unit, and Note. The table contains 17 rows of data. To the right of the table, there are several statistics and checkboxes: 'Accept measurements no lower:', 'Accept measurements no superior:', 'Current statistics' (checked), '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', and 'Total: 1957.25510'.

No.	Date	Time	Timer	Reading	Unit	Note
53	2013-08-12	11:53:25	30	93.95760	g	
54	2013-08-12	11:53:25	30	93.95720	g	
55	2013-08-12	11:53:26	31	93.95680	g	
56	2013-08-12	11:53:27	32	93.95680	g	
57	2013-08-12	11:53:27	32	93.95700	g	
58	2013-08-12	11:53:28	33	93.95700	g	
59	2013-08-12	11:53:28	33	93.95700	g	
60	2013-08-12	11:53:29	34	93.95690	g	
61	2013-08-12	11:53:29	34	93.95690	g	
62	2013-08-12	11:53:40	35	94.02250	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	









RADWAG

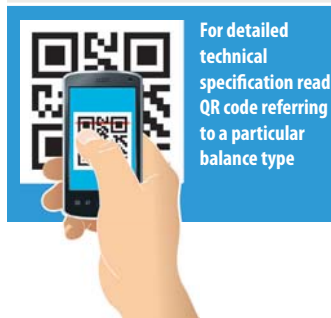
0.72182

Unit	g
Mode	Normal
Language	Polish
User	User

www.radwag.com

Technical specification

	Analytical balances	Precision balances	
			
	AS.X2 series	PS.X2 series	APP.X2 series
Maximum capacity [Max]	60 - 310 g	200 - 10 000 g	6 - 35 kg
Readability [d]	0,01 - 0,1 mg	1 - 100 mg	0,01 - 5 g
Weighing pan dimensions	ø70 mm / ø85 mm	128 × 128 mm / 195 × 195 mm	348 × 260 mm
Adjustment	internal (automatic)		
Display	5" colour capacitive touchscreen		
Communication interface	2 × RS 232, USB A, USB B, Ethernet, 4 × IN, 4 × OUT, WiFi (option)		
			



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.

Optional equipment accessibility is conditioned by a particular model.

PC software



PW-WIN

Cooperation with a computer, measurements presentation, statistics.



RAD-KEY

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



Alibi Reader

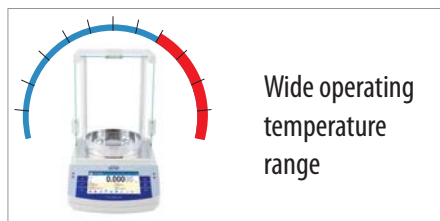
Capturing balance data recorded in ALIBI memory.



Features:



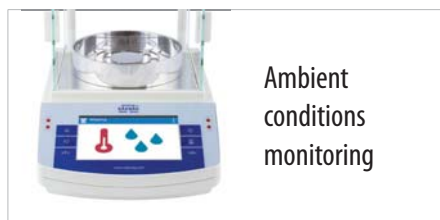
5" colour capacitive touchscreen



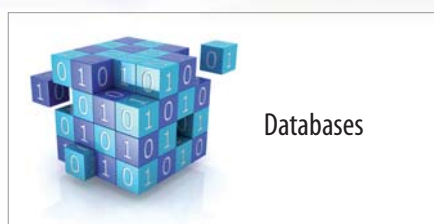
Wide operating temperature range



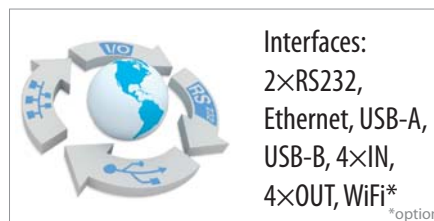
Sensors for touch-free operation



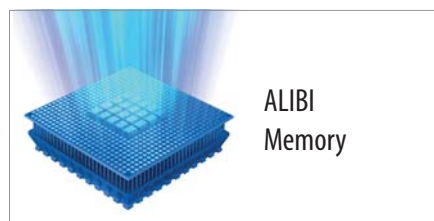
Ambient conditions monitoring



Databases



Interfaces:
2xRS232,
Ethernet, USB-A,
USB-B, 4xIN,
4xOUT, WiFi*
*option





















ALIBI
Memory



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