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
ASX2 analytical balances
Max: up to 310 g
d: from 0.01 mg
Weighing pan: Ø 70 or Ø 85 mm

PSX2 precision balances
Max: up to 1000 g
d: from 1 mg
Weighing pan: 128 × 128 mm

PSX2 precision balances
Max: up to 10 kg
d: from 10 mg
Weighing pan: 195 × 195 mm

APPX2 precision balances
Max: up to 35 kg
d: from 0.01 g
Weighing pan: 348 × 260 mm
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
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.

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.
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.

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.

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
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.
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.

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

<table>
<thead>
<tr>
<th>Working mode</th>
<th>Weighing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date</td>
<td>18.05.2015</td>
</tr>
<tr>
<td>Time</td>
<td>11:36:36</td>
</tr>
<tr>
<td>Balance type</td>
<td>AS 220.X2</td>
</tr>
<tr>
<td>Balance ID</td>
<td>2035</td>
</tr>
<tr>
<td>Product</td>
<td>PILL</td>
</tr>
<tr>
<td>User</td>
<td>John Smith</td>
</tr>
<tr>
<td>Net weight</td>
<td>0.8020 g</td>
</tr>
<tr>
<td>Tare</td>
<td>0.5000 g</td>
</tr>
<tr>
<td>Gross weight</td>
<td>1.3010 g</td>
</tr>
</tbody>
</table>

--------------- 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               |

Exemplary report

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.
# Technical specification

<table>
<thead>
<tr>
<th>Analytical balances</th>
<th>Precision balances</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>AS.X2 series</strong></td>
<td><strong>PS.X2 series</strong></td>
</tr>
<tr>
<td>Maximum capacity [Max]</td>
<td>60 - 310 g</td>
</tr>
<tr>
<td>Readability [d]</td>
<td>0,01 - 0,1 mg</td>
</tr>
<tr>
<td>Weighing pan dimensions</td>
<td>ø70 mm / ø85 mm</td>
</tr>
<tr>
<td>Adjustment</td>
<td>internal (automatic)</td>
</tr>
<tr>
<td>Display</td>
<td>5” colour capacitive touchscreen</td>
</tr>
<tr>
<td>Communication interface</td>
<td>2 × RS 232, USB A, USB B, Ethernet, 4 × IN, 4 × OUT, WiFi (option)</td>
</tr>
</tbody>
</table>

For detailed technical specification read QR code referring to a particular balance type

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## 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.

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## 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

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

Databases

Interfaces:
2×RS232, Ethernet, USB-A, USB-B, 4×IN, 4×OUT, WiFi*

Customized reports and printouts

ALIBI Memory

Databases

www.radwag.com