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
- Internal adjustment (excluding MA X2.A)

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
AS X2
analytical balances

Maximum capacity [Max]: up to 310 g
Readability [d]: from 0.01 mg
Weighing pan dimensions: ø90 mm, ø100 mm, ø85 mm (option)

PS X2
precision balances

Maximum capacity [Max]: up to 10.1 kg
Readability [d]: from 1 mg
Weighing pan dimensions: 128 × 128 mm, 195 × 195 mm

WLC X2
precision balances

Maximum capacity [Max]: up to 21 kg
Readability [d]: from 1 mg
Weighing pan dimensions: 128 × 128 mm, 195 × 195 mm, ø100 mm

MA X2.A, MA X2.IC.A
moisture analyzers

Maximum capacity [Max]: up to 210 g
Readability [d]: from 0.1 mg
Weighing pan dimensions: ø 90 mm, h = 8 mm
The X2 series as a standard for quality

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 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 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.
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 a 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.

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.
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. Every single RADWAG-manufactured software offers option of Wi-Fi®.
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.

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 a long period of time.

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.

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

--- Calibration Report ---

<table>
<thead>
<tr>
<th>Calibration type</th>
<th>Internal</th>
</tr>
</thead>
<tbody>
<tr>
<td>User</td>
<td>John Smith</td>
</tr>
<tr>
<td>Project</td>
<td>124/5GW/2019</td>
</tr>
<tr>
<td>Date</td>
<td>18.01.2019</td>
</tr>
<tr>
<td>Time</td>
<td>12:56:10</td>
</tr>
<tr>
<td>Balance ID</td>
<td>1035</td>
</tr>
<tr>
<td>Calibration difference</td>
<td>0.0000 g</td>
</tr>
</tbody>
</table>

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

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.

R-Lab software enables scale preview and generating both weighings and statistics graphs.

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

## AS X2

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum capacity [Max]</td>
<td>60 g - 310 g</td>
</tr>
<tr>
<td>Readability [d]</td>
<td>0.01 mg - 0.1 mg</td>
</tr>
<tr>
<td>Weighing pan dimensions</td>
<td>ø90 mm, ø100 mm, ø85 mm (option)</td>
</tr>
<tr>
<td>Stabilization time</td>
<td>3.5 s - 6 s</td>
</tr>
<tr>
<td>Adjustment</td>
<td>Internal</td>
</tr>
<tr>
<td>Display</td>
<td>5” colour capacitive touchscreen</td>
</tr>
<tr>
<td>Communication Interfaces</td>
<td>USB-A, USB-B, 2×RS232, Ethernet, Wi-Fi®</td>
</tr>
</tbody>
</table>

## PS X2

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum capacity [Max]</td>
<td>0.2 kg - 10.1 kg</td>
</tr>
<tr>
<td>Readability [d]</td>
<td>1 mg - 100 mg</td>
</tr>
<tr>
<td>Weighing pan dimensions</td>
<td>128 × 128 mm, 195 × 195 mm</td>
</tr>
<tr>
<td>Stabilization time</td>
<td>1.5 s - 2 s</td>
</tr>
<tr>
<td>Adjustment</td>
<td>Internal</td>
</tr>
<tr>
<td>Display</td>
<td>5” colour capacitive touchscreen</td>
</tr>
<tr>
<td>Communication Interfaces</td>
<td>USB-A, USB-B, 2×RS232, Ethernet, Wi-Fi®</td>
</tr>
</tbody>
</table>

## WLC X2

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum capacity [Max]</td>
<td>0.2 kg - 21 kg</td>
</tr>
<tr>
<td>Readability [d]</td>
<td>1 mg - 1000 mg</td>
</tr>
<tr>
<td>Weighing pan dimensions</td>
<td>ø100 mm, 128 × 128 mm, 195 × 195 mm</td>
</tr>
<tr>
<td>Stabilization time</td>
<td>2 s - 4 s</td>
</tr>
<tr>
<td>Adjustment</td>
<td>Internal</td>
</tr>
<tr>
<td>Display</td>
<td>5” colour capacitive touchscreen</td>
</tr>
<tr>
<td>Communication Interfaces</td>
<td>USB-A, USB-B, 2×RS232, Ethernet, Wi-Fi®</td>
</tr>
</tbody>
</table>

## Optional equipment

- Barcode readers,
- PCL printers,
- USB keyboard,
- PC Software: R-Lab, 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

- R-Lab - Scales preview, weighings graphs and statistics graphs.
- RAD-KEY - Capturing balance data, inserting the data into a spreadsheet cell.
- ALIBI Reader - Capturing balance data recorded in ALIBI memory.

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