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# R Series Laboratory Balances



# R Series Laboratory Balances

**Innovative solutions of the R series, redefined operation and presentation of weighing results.**

The R series balances represent the standard level of precision instruments. They have been equipped with LCD screen, providing even clearer result presentation. To maximize the comfort of operation, the display has been enriched with an extra text line supplying you with either information or prompts on the weighing process (product name, tare value, etc.).

A new feature of the R series balances is a set of symbols showing a current working mode, type of connection with a computer, battery state, weighing and service functions. Additionally, now there are even more weighing units at your disposal (g, mg, etc.). Weighing results are recorded in ALIBI memory.

The R series features a plastic housing and a stainless steel weighing pan, and enables under-pan weighing, wherein the load is suspended under the balance

## Home screen

- A** Symbols
- B** Extra text line
- C** Direct access to databases
- D** Access to a particular working mode functions
- E** Working mode selection
- F** Direct start-up of balance adjustment procedure
- G** Transfer of display state to a peripheral device
- H** Navigation buttons





### AS R2 PLUS Analytical balances

Maximum capacity [Max]: up to 520 g  
Readability [d]: down to 0,01 mg  
Weighing pan dimensions: ø 90 mm, ø 100 mm, ø 85 mm (option)



### PS R1 Precision balances

Maximum capacity [Max]: up to 6100 g  
Readability [d]: down to 1 mg  
Weighing pan dimensions: 128 × 128 mm, 195 × 195 mm



### PS R2 Precision balances

Maximum capacity [Max]: up to 10100 g  
Readability [d]: down to 1 mg  
Weighing pan dimensions: 128 × 128 mm, 195 × 195 mm



### MA R Moisture analyzers

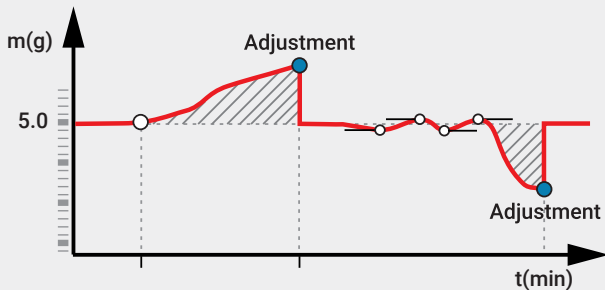
Maximum capacity [Max]: up to 210 g  
Readability [d]: down to 0.1 mg  
Weighing pan dimensions: ø 90 mm, h = 8 mm

# Quality and precision

## Auto-Cal - automatic system of adjustment procedure

Auto-Cal system is a tool for control and correction. It provides accurate weighing regardless of temperature variation, the position of the balance or changing environmental conditions. This allows the R series balances to offer accuracy in all conditions.

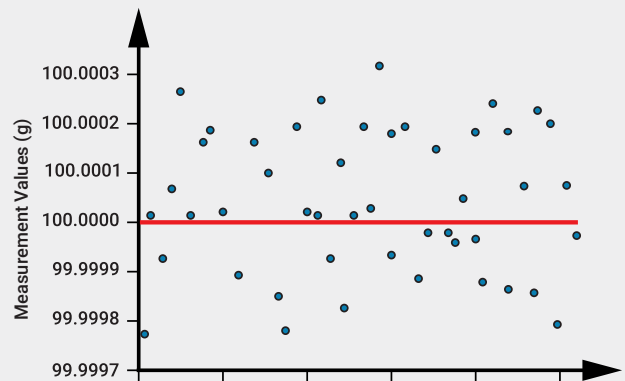
The built-in adjustment weight has been designed to maintain accurate indications. Discover that with our automatic or semiautomatic adjustment procedure, performed periodically, you may grow confident about your weighing results' accuracy. The adjustment system guarantees that accurate weighing results are obtained even for challenging working conditions. It is used for GLP, GMP control procedures.



## Repeatability of indications

The monolithic system ensures even greater accuracy and repeatability of weighing due to consolidation of elements of the balance's mechanical design. Using such technology results in higher quality balances.

Owing to the monolithic systems, R series balances offer fast measurement and excellent repeatability. These up-to-date design solutions, being highly resistant to transport shocks, are characterized by good metrological parameters.

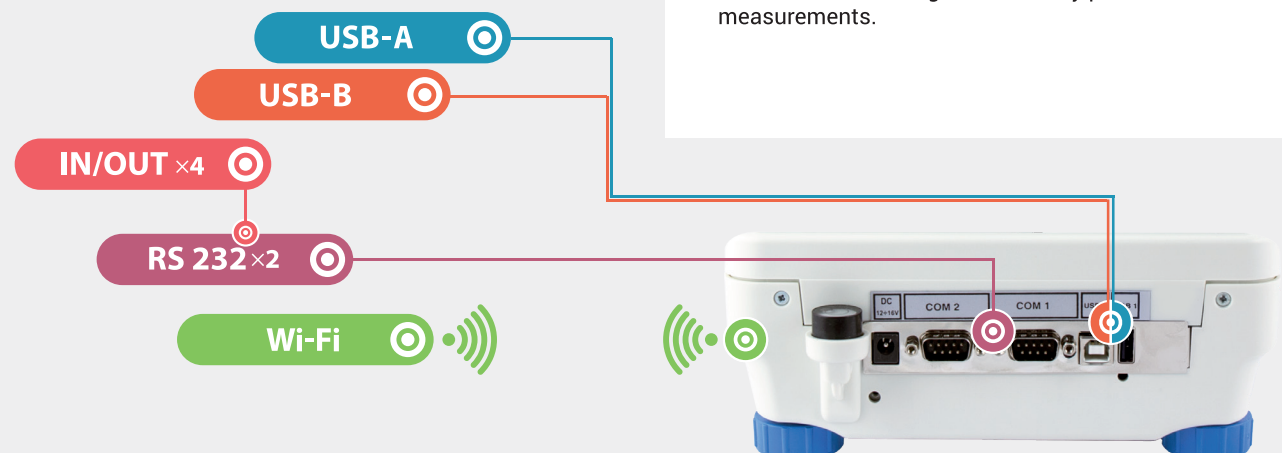


## Operating temperature range

Now, owing to a wider working temperature range, you don't have to monitor and adjust the room temperature, affecting your balance stability, over and over again.

## Communication interfaces

The R series balances have been equipped with various means of communication. They offer standard cable connections, realized via USB-A and USB-B or RS 232 ports, and wireless connection, realised via Wi-Fi technology. The latter is supported by all RADWAG-manufactured programs.



## Databases ergonomics for your weighing process

You certainly will appreciate information system of R series balances. The system is based on 5 databases: users database (10 different operators), products database (1000 different products), weighments database (1000 different measurements), tares database (10 different packaging weights).

When operating the new R series balances you can analyze particular measurements in details, export or import any data and exchange.

## Resistance to ambient conditions

Increased resistance to fluctuating ambient conditions such as breezes and changes in humidity provides more accurate measurements.

# Functionality and ergonomics

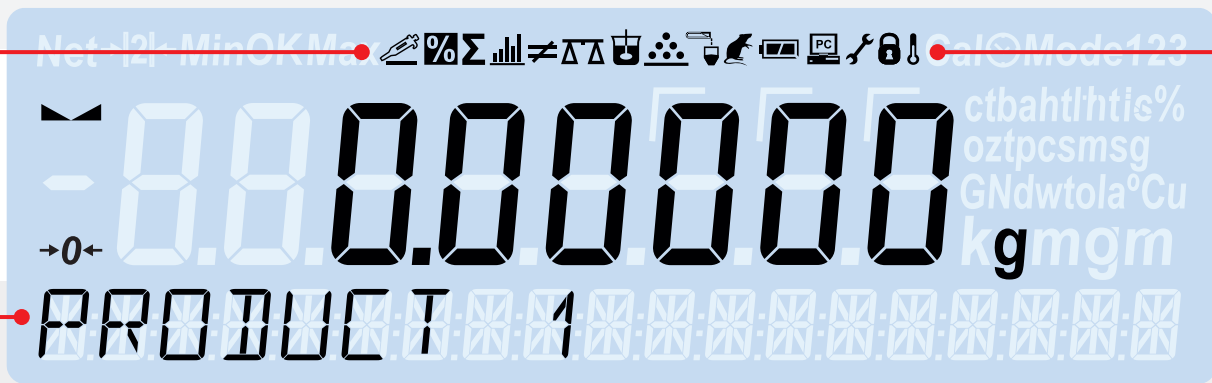
## Symbols and units

The R series offers a priceless set of intuitive symbols signalling current working mode, computer connection type, battery status, function that is in operation and much more. The symbols add to readout clarity, they provide maximum comfort of operation and improve ergonomics. Another facility supporting the weighing process is a wider choice of units.

## Ambient conditions monitoring

Stable ambient temperature is a key factor when it comes to the accuracy of balance indications. The R series balances feature an ergonomic diagnostic tool, namely, automatic monitoring of balance temperature. The dynamics of balance temperature variation is registered online. Shall the limit values be exceeded, a thermometer symbol is displayed on the balance screen. This calls for the necessity to stabilize the balance.

You may find ambient conditions monitoring especially useful during installation of the balance at its place of use. This solution may also turn out to be exceptionally valuable for observation of ambient temperature variation.



## Extra text line

An extra text line provides you with either information or prompts on the weighing process, e.g. product name or tare value.

## Bar Graph, visual representation of load capacity

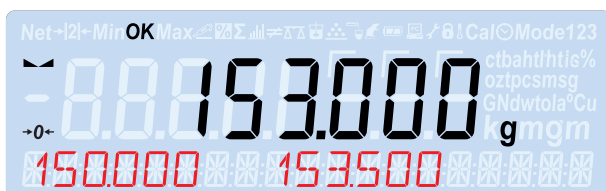
The bar graph indicates the load capacity change in real time. It can be run for various working modes with threshold markers, e.g. parts counting, dosing, percent weighing, animal weighing, statistics, totaling, peak hold or checkweighing.



Minimum value      Maximum value



Mass value lower than the value of minimum threshold



Minimum value      Maximum value



Mass value contained within thresholds



Minimum value      Maximum value



Mass value higher than the value of maximum threshold

# Database security

## Data protection

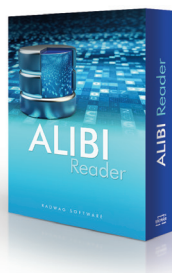
Access to the secured sensitive data is only possible when logged in. The access rights for each operator are set up by the Administrator.

## Archiving and data exchange

Archive your data. You will do it by transfer of reports on performed processes and partial measurements to external devices via a USB interface. With the USB interface, you can control the working process, restore any data, and copy the balance settings.

## ALIBI memory

ALIBI memory is a guarantee of data protection. It enables record of up to 100 000 weighings. This ensures security of stored data over long period of time.



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

# Reports and printouts

## Configurable printouts

In the new R series balances the weighing reports are divided into 3 configurable sections, each of which can be fully customized.

Working mode	Weighing
Date	18.01.2021
Time	11:36:36
Balance type	AS R2
Balance ID	2035
Product	PILL
Tare	0.5000 g
Gross weight	1.3020 g
Net weight	0.8020 g
User	Tom Smith
----- Calibration Report -----	
Calibration type	Internal
User	Tom Smith
Project	124/SGW/2021
Date	18.01.2021
Time	12:56:10
Balance ID	1035
Calibration difference	0.0000 g
-----	
Signature	-----

## Measurement printouts sent to PC software

Measurements carried out by R series balance can be transferred directly to R-Lab and RAD KEY 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.



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

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

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

# Technical specification



**AS R2 PLUS**



**PS R1**



**PS R2**

Maximum capacity [Max]	60 g – 520 g	200 g – 6100 kg	200 g – 10100 g
Readability [d]	0.01 mg – 0.1 mg	1 mg – 10 mg	1 mg – 10 mg
Weighing pan dimensions	ø 90 mm, ø 100 mm, ø 85 mm (option)	128 × 128 mm, 195 × 195 mm	128 × 128 mm, 195 × 195 mm
Stabilization time	2 s – 2.5 s	1.5 s – 2 s	1.5 s – 2 s
Adjustment	Internal	External	Internal
Display	LCD backlit	LCD backlit	LCD backlit
Communication interfaces	2×RS232, USB–A, USB–B, Wi–Fi® (option)	2 × RS 232, USB–A, USB–B, Wi–Fi® (option)	2 × RS 232, USB–A, USB–B, Wi–Fi® (option)

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



**MA R**

Maximum capacity [Max]	50 g – 210 g
Readability [d]	0.1 mg – 1 mg
Weighing pan dimensions	ø 90 mm, h = 8 mm
Moisture content readability	0.0001 % – 0.001 %
Drying temperature range	max 160°C, max 250°C (option)
Adjustment	External
Heating module	R emitter, halogen (option), metal heater (option)
Display	LCD backlit
Communication interfaces	RS 232, USB–A, USB–B, Wi–Fi®

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

## 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.

## Software

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

Read QR code and view the complete technical specification of all balances and scales





Net-121- MinOK Max 0.00 33.1420 g  
PRODUCT I.B. 4

Mode

Cal

Setup

Insert

Units  
Esc

F4

F1

F2

F3

On/Off

Database

Function

Delete

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