

# Rugged Precision Balances

'Standard level' measurement and proper protection class intended for operation under challenging conditions



PS R2.H, d = 1 mg



PS R2.M.H, d = 10 mg


















Hermetic external interface



Interface separated from the balance

## Functions

- |   |  |   |   |   |
|---|--|---|---|---|
|  Parts counting |  Percent weighing |  Autotest              |  Peak hold                      |  Alibi memory      |
|  Dosing         |  Statistics       |  Density determination |  GLP procedures                 |  Replaceable unit  |
|  Checkweighing  |  Animal weighing  |  Under hook weighing   |  Ambient conditions measurement |  Multilingual menu |

## Features

### Ease of Use and Measurements Accuracy

Combination of weighing accuracy and robust design enables applying PS R2.H balances in most of the laboratory and industrial solutions.

### Resistance and Protection Under Unfavourable Ambient Conditions

The design of appropriate protection class and closing the communication interfaces in a separate hermetic housing enable operation under difficult conditions (water splash, dust, etc.).

### Perfect Readability and Clear Information Layout

Large, easy-to-read LCD display offers not only a clear presentation of the weighing result, but also enables displaying messages related to the drying process as well as pictograms of active functions and working modes.

### Quick Access to Selected Functions

Quick access keys located on the operation panel enable you to run a given function with just one click. You can assign some of the keys with a function of your choice.

### Automatic Adjustment

Internal adjustment system guarantees the highest accuracy and reliable measurements results.

### RADWAG MonoBLOCK™, an Innovative Weighing System

The most advanced weighing system technology allowing measurement with the readability of  $d=0.01$  g at 10 kg maximum capacity. The mechanism guarantees stable repeatability over the whole product life cycle, it also ensures high resistance to ambient conditions change.

### Data Management

PS R2.H information system is based on operators, products, weighings and tares databases. All saved data can be analysed, exported, imported or exchanged between weighing instruments.

### ALIBI Memory

Internal ALIBI memory guarantees safety and automatic record of measurements copies, it also offers possibility to preview, copy and archive data.

	PS 200/2000.R2.H	PS 210.R2.H	PS 360.R2.H	PS 600.R2.H
Maximum capacity [Max]	200 g / 2000 g	210 g	360 g	600 g
Minimum load	0.02 g	0.02 g	0.02 g	0.02 g
Readability [d]	0.001 g / 0.01 g	0.001 g	0.001 g	0.001 g
Verification scale interval [e]	—	—	—	—
Tare range	-2000 g	-210 g	-360 g	-600 g
Repeatability (5% Max)*	0.0005 / 0.005 g	0.0005 g	0.0005 g	0.0005 g
Repeatability (Max)	0.001 / 0.01 g	0.001 g	0.001 g	0.0015 g
Linearity	±0.002 g / ±0.02 g	±0.002 g	±0.002 g	±0.003 g
Sensitivity temperature drift**	2 × 10 <sup>-6</sup> / °C × Rt	2 × 10 <sup>-6</sup> / °C × Rt	2 × 10 <sup>-6</sup> / °C × Rt	2 × 10 <sup>-6</sup> / °C × Rt
Minimum weight (U=1%, k=2)	0.1 g	0.1 g	0.1 g	0.1 g
Minimum weight (USP)	1 g	1 g	1 g	1 g
Stabilization time	2 s / 1.5 s	2 s	2 s	2 s
Adjustment	internal	internal	internal	internal
Verification	—	—	—	—
OIML Class	—	—	—	—
Display	LCD (with backlight)	LCD (with backlight)	LCD (with backlight)	LCD (with backlight)
Keypad	14 keys	14 keys	14 keys	14 keys
Protection class	IP 54	IP 54	IP 54	IP 54
Databases	5	5	5	5
USB-A	1	1	1	1
USB-B	1	1	1	1
RS 232	2	2	2	2
Wi-Fi® ***	802.11 b/g/n	802.11 b/g/n	802.11 b/g/n	802.11 b/g/n
Power supply	12 ÷ 16 V DC	12 ÷ 16 V DC	12 ÷ 16 V DC	12 ÷ 16 V DC
Power consumption	4 W	4 W	4 W	4 W
Operating temperature	+10 ÷ +40 °C	+10 ÷ +40 °C	+10 ÷ +40 °C	+10 ÷ +40 °C
Atmospheric humidity****	40 ÷ 80%	40 ÷ 80%	40 ÷ 80%	40 ÷ 80%
Transport and storage temperature	-20 ÷ +50 °C	-20 ÷ +50 °C	-20 ÷ +50 °C	-20 ÷ +50 °C
Weighing pan dimensions	ø 115 mm	ø 115 mm	ø 115 mm	ø 115 mm
Weighing pan material	stainless steel 0H18N9	stainless steel 0H18N9	stainless steel 0H18N9	stainless steel 0H18N9
Weighing device dimensions	333 × 206 × 166 mm	333 × 206 × 166 mm	333 × 206 × 166 mm	333 × 206 × 166 mm
Net weight	4.5 kg	4.2 kg	4.2 kg	4.3 kg
Gross weight	6.5 kg	6.2 kg	6.2 kg	6.3 kg
Packaging dimensions	470 × 380 × 336 mm	470 × 380 × 336 mm	470 × 380 × 336 mm	470 × 380 × 336 mm

Rt net weight

\* repeatability is expressed as a standard deviation from 10 weighing cycles

\*\* parameter determined in the following temperature range: +15 ÷ +35 °C

\*\*\* optional solution on purchase order

\*\*\*\* non-condensing conditions

In accordance with type approval, the balance parameters are maintained in temperature range: +15 ÷ +35 °C.

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

	PS 750.R2.H	PS 1000.R2.H	PS 2100.R2.M.H	PS 3500.R2.M.H
Maximum capacity [Max]	750 g	1000 g	2100 g	3500 g
Minimum load	0.02 g	0.02 g	0.5 g	0.5 g
Readability [d]	0.001 g	0.001 g	0.01 g	0.01 g
Verification scale interval [e]	—	—	—	—
Tare range	-750 g	-1000 g	-2100 g	-3500 g
Repeatability (5% Max)*	0.0005 g	0.0005 g	0.005 g	0.005 g
Repeatability (Max)	0.0015 g	0.0015 g	0.008 g	0.008 g
Linearity	±0.003 g	±0.003 g	±0.02 g	±0.02 g
Sensitivity temperature drift**	$2 \times 10^{-6} / ^\circ\text{C} \times \text{Rt}$	$2 \times 10^{-6} / ^\circ\text{C} \times \text{Rt}$	$2 \times 10^{-6} / ^\circ\text{C} \times \text{Rt}$	$2 \times 10^{-6} / ^\circ\text{C} \times \text{Rt}$
Minimum weight (U=1%, k=2)	0.1 g	0.1 g	1 g	1 g
Minimum weight (USP)	1 g	1 g	10 g	10 g
Stabilization time	2 s	2 s	1.5 s	1.5 s
Adjustment	internal	internal	internal	internal
Verification	—	—	—	—
OIML Class	—	—	—	—
Display	LCD (with backlight)	LCD (with backlight)	LCD (with backlight)	LCD (with backlight)
Keypad	14 keys	14 keys	14 keys	14 keys
Protection class	IP 54	IP 54	IP 54	IP 54
Databases	5	5	5	5
USB-A	1	1	1	1
USB-B	1	1	1	1
RS 232	2	2	2	2
Wi-Fi® ***	802.11 b/g/n	802.11 b/g/n	802.11 b/g/n	802.11 b/g/n
Power supply	12 ÷ 16 V DC	12 ÷ 16 V DC	12 ÷ 16 V DC	12 ÷ 16 V DC
Power consumption	4 W	4 W	4 W	4 W
Operating temperature	+10 ÷ +40 °C	+10 ÷ +40 °C	+10 ÷ +40 °C	+10 ÷ +40 °C
Atmospheric humidity****	40 ÷ 80%	40 ÷ 80%	40 ÷ 80%	40 ÷ 80%
Transport and storage temperature	-20 ÷ +50 °C	-20 ÷ +50 °C	-20 ÷ +50 °C	-20 ÷ +50 °C
Weighing pan dimensions	ø 115 mm	ø 115 mm	195 × 195 mm	195 × 195 mm
Weighing pan material	stainless steel 0H18N9	stainless steel 0H18N9	stainless steel 0H18N9	stainless steel 0H18N9
Weighing device dimensions	333 × 206 × 166 mm	333 × 206 × 166 mm	333 × 206 × 100 mm	333 × 206 × 100 mm
Net weight	4.3 kg	4.5 kg	4.3 kg	4.5 kg
Gross weight	6.3 kg	6.5 kg	5.8 kg	6 kg
Packaging dimensions	470 × 380 × 336 mm	470 × 380 × 336 mm	470 × 380 × 336 mm	470 × 380 × 336 mm

Rt net weight

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\*\*\* optional solution on purchase order

\*\*\*\* non-condensing conditions

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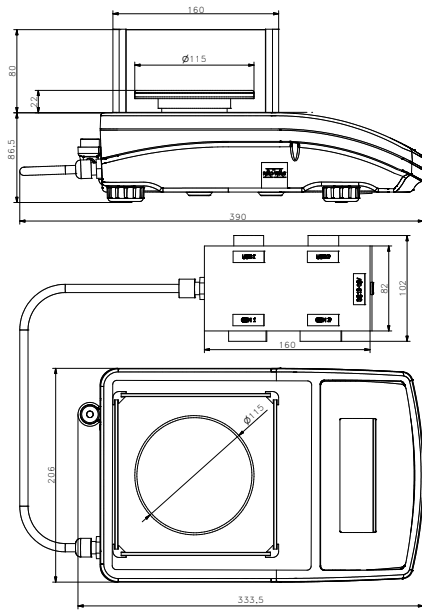
	PS 4500.R2.M.H	PS 6100.R2.M.H
Maximum capacity [Max]	4500 g	6100 g
Minimum load	0.5 g	0.5 g
Readability [d]	0.01 g	0,01 g
Verification scale interval [e]	—	—
Tare range	−4500 g	−6100 g
Repeatability (5% Max)*	0.005 g	0.005 g
Repeatability (Max)	0.008 g	0.008 g
Linearity	±0.03 g	±0.03 g
Sensitivity temperature drift**	$2 \times 10^{-6} / ^\circ\text{C} \times R_t$	$2 \times 10^{-6} / ^\circ\text{C} \times R_t$
Minimum weight (U=1%, k=2)	1 g	1 g
Minimum weight (USP)	10 g	10 g
Stabilization time	1.5 s	1.5 s
Adjustment	internal	internal
Verification	—	—
OIML Class	—	—
Display	LCD (with backlight)	LCD (with backlight)
Keypad	14 keys	14 keys
Protection class	IP 54	IP 54
Databases	5	5
USB-A	1	1
USB-B	1	1
RS 232	2	2
Wi-Fi® ***	802.11 b/g/n	802.11 b/g/n
Power supply	12 ÷ 16 V DC	12 ÷ 16 V DC
Power consumption	4 W	4 W
Operating temperature	+10 ÷ +40 °C	+10 ÷ +40 °C
Atmospheric humidity****	40 ÷ 80%	40 ÷ 80%
Transport and storage temperature	−20 ÷ +50 °C	−20 ÷ +50 °C
Weighing pan dimensions	195 × 195 mm	195 × 195 mm
Weighing pan material	stainless steel 0H18N9	stainless steel 0H18N9
Weighing device dimensions	333 × 206 × 107 mm	333 × 206 × 107 mm
Net weight	4.5 kg	4.5 kg
Gross weight	6.1 kg	6.1 kg
Packaging dimensions	470 × 380 × 336 mm	470 × 380 × 336 mm

- Rt net weight
- \* repeatability is expressed as a standard deviation from 10 weighing cycles
- \*\* parameter determined in the following temperature range: +15 ÷ +35 °C
- \*\*\* optional solution on purchase order
- \*\*\*\* non-condensing conditions

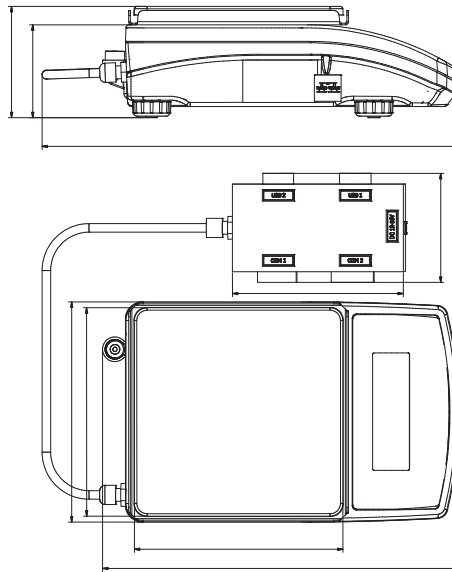
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## Dimensions



PS R2.H, d = 1 mg



PS R2.M.H, d = 10 mg

## Accessories

### Weighing Tables

- granite antivibration table
- antivibration tables for laboratory balances
- professional weighing table

### Professional Weighing

- KIT 195 density determination kit
- under-hook weighing rack

### Peripheral Devices

- label printer
- receipt printer
- Epson dot matrix printer
- barcode scanners
- WD-6 LCD display

### Cables, Converters

- P0108: RS 232 cable (balance-computer)
- P0151: RS 232 cable (balance - Epson printer)
- USB cable type A-B
- AP2-1 power loop output

### Electrical Accessories

- power supply with ZR-02 battery

### Remaining Accessories

- panel box

## Dedicated Software

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### **R-LAB**

- collecting measurements
- carrying out statistical analysis of measurements
- customized graphs and reports

### **E2R Weighing Records**

- complete, automated databases synchronization
- fully supported processes of labelling and parts counting
- record of weighings, weighings archiving
- basic and advanced (with graphs) reports

### **RAD KEY**

- Establishing cooperation between a weighing instrument and a computer

### **R.Barcode**

- The basic function software is presentation of the data sent by barcode scanners connected to PC via USB or RS232

### **Radwag Development Studio**

- presentation of functions (and subfunctions) of communication protocol (Common Communication Protocol)
- possibility of connection with weighing equipment on which each function is carried out,
- library with mass control, contained within the development environment
- complete documentation of the communication protocol
- set of user manuals for different solutions addressed for programmers employed in companies using RADWAG-manufactured weighing equipment

### **LabView Driver**

- operation of RADWAG balances in LabView environment

### **RADWAG Connect**

- establishing communication with all balances, scales and weighing modules using Common Communication Protocol
- communication via local network,
- support of basic functions
- auto searching for devices
- connecting with few devices simultaneously, swapping between them
- clear list of connected platforms
- record of measurements in the program,
- export of carried out measurements to CSV file,
- work performed using freely selected device with Windows 10 operating system

### **Alibi Reader**

- readout of data saved to Alibi memory
- export of data saved to Alibi memory
- data filtering and reports generating
- saving ALIBI database to CSV file

### **R Panel**

- operator access to all keys and functions that are to be found on an operation panel
- communication via COM1, COM2 or USB,
- compatible with: Windows Vista, 7, 8, 8.1, 10, Server 2008R2, 2012, 2016.