






LABORATORY BALANCES


Price list 2012





-  Filling


-  Checkweighing


-  Percentage


-  Statistics


-  Formulation

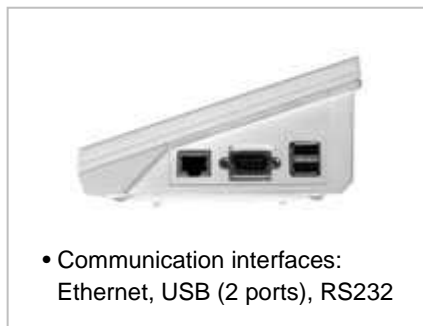
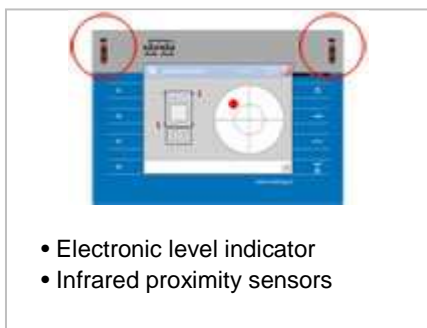
-  Air buoyancy correction

-  GLP procedures

-  Infrared sensors


-  Comparative weighing

-  Alibi memory




Ultra accuracy 0,1 µg!


Microbalances of UYA type have been designed on the basis of new electronic modules and the latest technology. Measurement reliability and accuracy is ensured by internal calibration. Microbalances consist of two major parts (an electronic system and a precise mechanical measurement system) in separate housings - this solution eliminates the temperature influence and separates from shocks and vibrations caused by users operating software. All the elements of the balance are made of glass and steel which eliminates the influence of electrostatics on the weighing process. Balances feature 5.7" colour touch screen panel with new software for the highest convenience of use!


Model		M	Max	d	e	Pan size
UYA 2 /2Y	•	•	2 g	0,1 µg	1 mg	ø16 mm
UYA 2 /2Y/F	•	•	2 g	0,1 µg	1 mg	ø 50 mm


 internal calibration





-  Filling


-  Checkweighing


-  Percentage


-  Statistics


-  Formulation

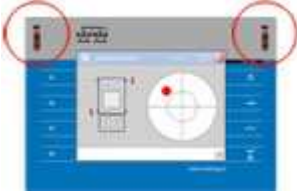
-  Air buoyancy correction

-  GLP procedures


-  Infrared sensors

-  Comparative weighing

-  Alibi memory




- Electronic level indicator
- Infrared proximity sensors



- Colorful touch-screen panel 5,7"






- Data exchange through USB storage devices



- Communication interfaces: Ethernet, USB (2 ports), RS232

Microbalances of MYA type have been designed on the basis of new electronic modules and the latest technology. Measurement reliability and accuracy is ensured by internal calibration. Microbalances consist of two major parts (an electronic system and a precise mechanical measurement system) in separate housings - this solution eliminates the temperature influence and separates from shocks and vibrations caused by users operating software. All the elements of the balance are made of glass and steel which eliminates the influence of electrostatics on the weighing process. Balances feature 5.7" colour touch screen panel with new software for the highest convenience of use!












Model			Max	d	e	Pan size
MYA 2 /2Y	•	•	2 g	1 µg	1 mg	ø30 mm
MYA 0.8/3 /2Y	•	•	0,8/3 g	1/10 µg	1 mg	ø30 mm
MYA 5 /2Y	•	•	5 g	1 µg	1 mg	ø30 mm
MYA 11 /2Y	•	•	11 g	1 µg	1 mg	ø30 mm
MYA 21 /2Y	•	•	21 g	1 µg	1 mg	ø30 mm

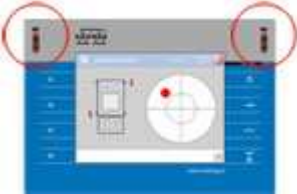
 internal calibration




PROFESSIONAL LEVEL



-  Filling
-  Checkweighing
-  Percentage
-  Statistics
-  Formulation
-  Air buoyancy correction
-  GLP procedures
-  Infrared sensors
-  Comparative weighing
-  Alibi memory
-  Pipette calibration*




- Electronic level indicator
- Infrared proximity sensors



- Colorful touch-screen panel 5,7"




- Data exchange through USB storage devices




- Communication interfaces: Ethernet, USB (2 ports), RS232

* Function only available as an extra option of the software


Microbalances of MYA type have been designed on the basis of new electronic modules and the latest technology. Measurement reliability and accuracy is ensured by internal calibration. Microbalances consist of two major parts (an electronic system and a precise mechanical measurement system) in separate housings - this solution eliminates the temperature influence and separates from shocks and vibrations caused by users operating software. All the elements of the balance are made of glass and steel which eliminates the influence of electrostatics on the weighing process. Balances feature 5.7" colour touch screen panel with new software for the highest convenience of use! They are provided with the special kit for calibration of pipettes and additional standard pan.


Model		M	Max	d	e	Pan size
MYA 21 /2Y/P	•	•	21 g	1 µg	1 mg	Ø 20 mm
Pipettes – PC software						


 internal Calibration


More information about workstation for pipette calibration on page 45





-  Filling


-  Checkweighing


-  Percentage


-  Statistics


-  Formulation


-  Air buoyancy correction

-  GLP procedures

-  Infrared sensors

-  Comparative weighing

-  Alibi memory




- Electronic level indicator
- Infrared proximity sensors



- Model MYA 5/F1



- Data exchange through USB storage devices





- Communication interfaces: Ethernet, USB (2 ports), RS232

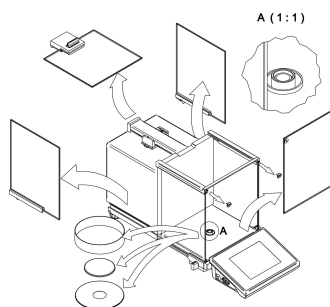

















- Special chamber with a pan for filter weighing


Microbalances of MYA series have been designed on the basis of new electronic modules and the latest technology. Measurement reliability and accuracy is ensured by internal calibration. Microbalances consist of two major parts (an electronic system and a precise mechanical measurement system) in separate housings - this solution eliminates the temperature influence and separates from shocks and vibrations caused by users operating software. All the elements of the balance are made of glass and steel which eliminates the influence of electrostatics on the weighing process. Balances feature 5.7" colour touch screen panel with new software for the highest convenience of use!

Model		M	Max	d	e	Pan size
MYA 5 /2Y/F	•	•	5 g	1 µg	1 mg	ø100 mm
MYA 5 /2Y/F1	•	•	5 g	1 µg	1 mg	ø160 mm


 internal calibration



-  Parts counting
-  Filling
-  Animal weighing
-  Density determination
-  Checkweighing
-  Percentage
-  Statistics
-  Formulation
-  Air buoyancy correction
-  Under-hook weighing
-  GLP procedures
-  Infrared sensors
-  Comparative weighing
-  Alibi memory
-  Pipette calibration*



- Electronic level indicator
- Infrared proximity sensors



- Colorful touch-screen panel 5,7"




- Data exchange through USB storage devices




- Communication interfaces: Ethernet, USB (2 ports), RS232

Analytical balances of XA/2Y type have been designed on the basis of new electronic modules and the latest technology. Measurement reliability and accuracy is assured by internal calibration triggered by time flow or temperature conditions. Balances are equipped with spacious weighing chamber with automatically opened side glass doors. XA/2Y balances feature 5.7" colour touch screen panel with new software for the highest convenience of use!














Dismountable glass doors for easy cleaning


Model		M	Max	d	e	Pan size
XA 52/2Y	•	•	52 g	0,01 mg	1 mg	ø85 mm
XA 110/2Y	•	•	110 g	0,01 mg	1 mg	ø85 mm
XA 210/2Y	•	•	210 g	0,01 mg	1 mg	ø85 mm
XA 82/220/2Y	•	•	82/220 g	0,01/0,1 mg	1 mg	ø85 mm
XA 100/2Y	•	•	100 g	0,1 mg	1 mg	ø100 mm
XA 160/2Y	•	•	160 g	0,1 mg	1 mg	ø100 mm
XA 220/2Y	•	•	220 g	0,1 mg	1 mg	ø100 mm
XA 310/2Y	•	•	310 g	0,1 mg	1 mg	ø100 mm
XA 510/2Y	•	•	510 g	0,1 mg	1 mg	ø100 mm

 internal calibration

* Function only available as an extra option of the software



-  Parts counting
-  Filling
-  Animal weighing
-  Density determination
-  Checkweighing
-  Percentage
-  Statistics
-  Formulation
-  Under-hook weighing
-  GLP procedures
-  Infrared sensors
-  Comparative weighing
-  Alibi memory




- Electronic level indicator
- Infrared proximity sensors



- Colorful touch-screen panel 5,7"




- Data exchange through USB storage devices




- Communication interfaces: Ethernet, USB (2 ports), RS232

Dismountable glass doors for easy cleaning

Analytical balances of AS/Y type have been designed on the basis of new electronic modules and the latest technology. Measurement reliability and accuracy is assured by internal calibration triggered by time flow or temperature conditions. Balances feature 5.7" colour touch screen panel with new software for the highest convenience of use!

Model	 M	Max	d	e	Pan size
AS 110/2Y	•	110 g	0,1 mg	1 mg	ø85 mm
AS 160/2Y	•	160 g	0,1 mg	1 mg	ø85 mm
AS 220/2Y	•	220 g	0,1 mg	1 mg	ø85 mm
AS 310/2Y	•	310 g	0,1 mg	1 mg	ø85 mm

 internal calibration



Parts counting



Filling



Animal weighing



Density determination



Checkweighing



Percentage



Statistics



Formulation



Air buoyancy correction



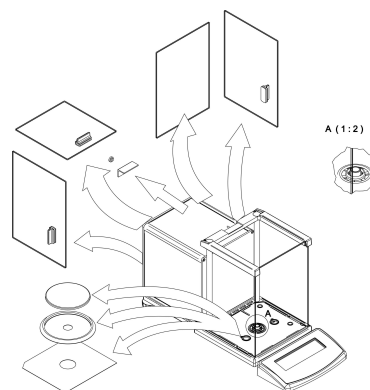
Under-hook weighing



GLP procedures



Pipette calibration



Dismountable glass doors for easy cleaning

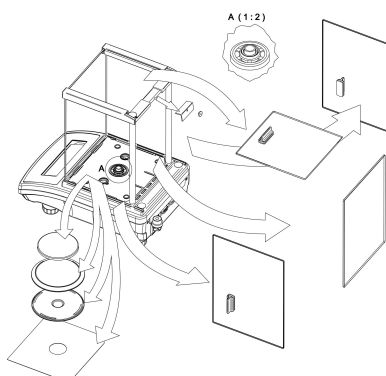
AX/X balances are equipped with big backlit graphic display with extended menu, 12-keys membrane keyboard, big weighing chamber with sliding upper glass door and side glass door. Balance accuracy is guaranteed by automatic internal calibration triggered by time flow or temperature conditions.


Model		M	Max	d	e	Pan size
XA 52/2X	•	•	52 g	0,01 mg	1 mg	ø85 mm
XA 110/2X	•	•	110 g	0,01 mg	1 mg	ø85 mm
XA 82/220/2X	•	•	82/220 g	0,01/0,1 mg	1 mg	ø85 mm
XA 100/2X	•	•	100 g	0,1 mg	1 mg	ø100 mm
XA 160/2X	•	•	160 g	0,1 mg	1 mg	ø100 mm
XA 220/2X	•	•	220 g	0,1 mg	1 mg	ø100 mm
XA 310/2X	•	•	310 g	0,1 mg	1 mg	ø100 mm


internal calibration





Dismountable glass doors for easy cleaning





-  Parts counting


-  Filling


-  Animal weighing


-  Density determination


-  Checkweighing


-  Percentage

-  Statistics

-  Formulation

-  Air buoyancy correction


-  Under-hook weighing


-  GLP procedures

** Function only available as an extra option of the software*

Balances series AS/X represent standard level of analytical balances. They are equipped with backlit graphic display. Accuracy and precise measurement of the balances are determined by automatic internal calibration, triggered by time flow or temperature conditions.

User has access to big weighing chamber with sliding side glass doors and sliding top glass door. Each balance in standard version features a RS 232 output for connecting an additional display. Balances have the possibility of weighing loads outside the main weighing platform (so called under hook weighing). This means of mass measuring is an alternative for loads with non-standard dimensions and shapes and those which create magnetic field. Under hook weighing is also applied for density determination procedures.

Model		M	Max	d	e	Pan size
AS 110/X	•	•	110 g	0,1 mg	1 mg	ø85 mm
AS 160/X	•	•	160 g	0,1 mg	1 mg	ø85 mm
AS 220/X	•	•	220 g	0,1 mg	1 mg	ø85 mm
AS 310/X	•	•	310 g	0,1 mg	1 mg	ø85 mm

 internal calibration



Parts counting



Density determination



Checkweighing



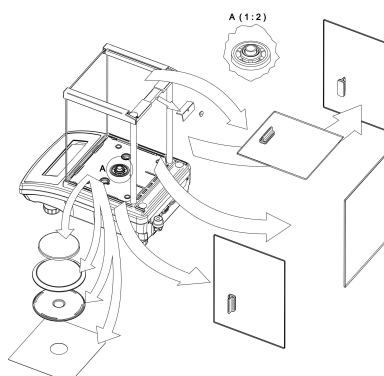
Percentage



Under-hook weighing



GLP procedures



Dismountable glass doors for easy cleaning

Balances series AS represent standard level of analytical balances. They are equipped with backlit LCD display. Accuracy and precise measurement of the balances are determined by automatic internal calibration, triggered by time flow or temperature conditions. Analytical balances AS series are offered with following capacities:

- 110, 160, 220, 310 g with readability of 0,1 mg,
- 60 g with readability of 0,01 mg,
- 60/220 g with readability of 0,01/0,1 mg.

User has access to big weighing chamber with sliding side glass doors and sliding top glass door. Each balance in standard version features a RS 232 output for connecting an additional display.

Balances series AS/C/1 are also available with external calibration as a non approved version.

Model	M	Max	d	e	Pan size
AS 60/220/C/2	• •	60/220 g	0,01/0,1 mg	1 mg	ø70 mm
AS 110/C/2	• •	110 g	0,1 mg	1 mg	ø85 mm
AS 160/C/2	• •	160 g	0,1 mg	1 mg	ø85 mm
AS 220/C/2	• •	220 g	0,1 mg	1 mg	ø85 mm
AS 310/C/2	•	310 g	0,□ mg		ø85 mm
AS 110/C/1		110 g	0,1 mg		ø85 mm
AS 160/C/1		160 g	0,1 mg		ø85 mm
AS 220/C/1		220 g	0,1 mg		ø85 mm

internal calibration



Radwag Laboratory Holders have been designed for faster and more convenient weighing. They ensure perfect and secure fixing of small vessels, both typical and non-standard shapes.

Product highlights:

- Full ergonomics of weighing
- Direct dosing of a sample into a vessel
- High work efficiency, lower costs (minimizing possible loss of samples resulting from moving)
- Direct dosing of samples into various samples (test tubes, round flasks, flat flasks, plastic test-tubes, titration vessels)

Laboratory holders are compatible with all analytical balances made by Radwag: XA/Y, AS/Y, XA/X, AS/X, AS.



Model	Application
UL-01	glass and plastic tubes, filters, various vessels
UL-02	glass and plastic tubes $\varnothing 8$, $\varnothing 10$ i $\varnothing 12$ mm
UL-03	round bottom measuring flask 50, 100 i 250 ml
UL-04	flat bottom measuring flask 50 i 100 ml



Automatic feeder PA-02/H



Example of set (feeder PA-02/H ; balance AS220/Y ; printer)

CONSTRUCTION

Automatic feeder PA-02 is a device designed for automatic filling objects with small dimensions, in particular pills and capsules, as well as small mechanical parts. The feeder, which is attached to a balance, provides even dosing of elements onto the weighing pan. If joined with a RADWAG analytical balance series Y, it provides fast static control of samples according to strict pharmaceutical requirements.

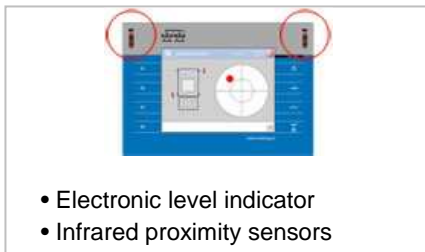
DESIGN AND FUNCTIONALITY


The device is based on a cylindrical vibrating container equipped with a conical or stepped storage bin offered in stainless steel version. Due to application in pharmaceutical industry, the feeder's storage bin is continuously welded in its inner and outer part, and it is chemically electropolished. The feeder is appropriate for dosing pills from 3 to 15 mm in diameter, round and oblong, as well as details with similar shapes and dimensions.


The device is enclosed in a powder coated mild steel housing.


RADWAG laboratory balances series Y (**AS/Y** and **PS/Y**), which are cooperating with the automatic feeder, provide complete control over the PA-02/H feeder. The balance controls the start and stop of the feeder and adjusts object feeding frequency. The device also enables automatic feeding of objects according to pre-defined algorithm. Filled objects (e.g. pills) are weighed on a balance and statistically assessed. The feeder fills the following object as soon as it receives an adequate command from the balance.


Model	Technical data
PA-02/H	
Diameter of filled object	Ø 3 ÷ 10 mm
Feeder diameter	Ø 180 mm
Height of feeder's vibrating element	70 mm
Filling speed	1 ÷ 15 pcs/min
Operating temperature	+5 ° ÷ +40 °C
Power consumption	8 W
IP rating	IP 34
Power supply	110 ÷ 230VAC 50 / 60Hz
Control	External from balance level (AS/Y ; PS/Y)
Interface	RS 232
Net weight	16 kg
Dimension	320x320x300 mm





-  Parts counting


-  Filling


-  Animal weighing


-  Density determination


-  Checkweighing


-  Percentage


-  Statistics


-  Formulation

-  Under-hook weighing


-  GLP procedures

-  Infrared sensors












-  Comparative weighing

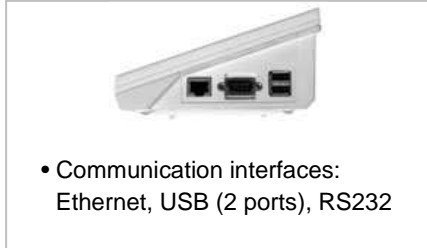
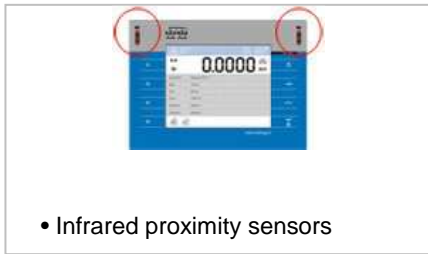
-  Alibi memory

Precision balances of PS/Y are the response for growing market demands concerning simple operation and maximum automatization of weighing process. Measurement reliability and accuracy is ensured by internal calibration triggered by time flow or temperature conditions. Balances feature 5.7" colour touch screen panel .Y scales are provided with a new software ensuring great ease of use.

Model	 M	Max	d	e	Pan size
PS 200/2000/2Y/2	•	200/2000 g	1/10 mg	10/100 mg	128x128 mm
PS 250/2Y/2	•	250 g	1 mg	10 mg	128x128 mm
PS 450/2Y/2	•	450 g	1 mg	10 mg	128x128 mm
PS 6002/Y/2	•	600 g	1 mg	10 mg	128x128 mm
PS 750/2Y/2	•	750 g	1 mg		128x128 mm
PS 1000/2Y/2	•	1000 g	1 mg		128x128 mm
PS 1500/2Y/2	•	1500 g	10 mg	100 mg	195x195 mm
PS 2500/2Y/2	•	2500 g	10 mg	100 mg	195x195 mm
PS 4500/2Y/2	•	4500 g	10 mg	100 mg	195x195 mm
PS 6000/2Y/2	•	6000 g	10 mg	100 mg	195x195 mm
PS 8000/2Y/1		8000 g	10 mg		195x195 mm



-  Parts counting
-  Filling
-  Animal weighing
-  Density determination
-  Checkweighing
-  Percentage
-  Statistics
-  Formulation
-  Under-hook weighing
-  GLP procedures
-  Infrared sensors














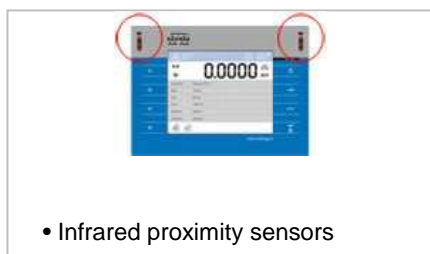
Precision balances of WLY are the response for the growing market demands concerning simple operation and maximum automation of the weighing process. Balances feature 5.7" colour touch screen panel. Y scales feature new software ensuring great ease of use.

Model	M	Max	d	e	Pan size
WLY 1/D2		1 kg	0,01 g		195x195 mm
WLY 2/D2		2 kg	0,01 g		195x195 mm
WLY 6/D2		6 kg	0,1 g		195x195 mm
WLY 10/D2		10 kg	0,1 g		195x195 mm
WLY 20/D2		20 kg	0,1 g		195x195 mm
WLY 6/C1/R		6 kg	0,1 g		360x290 mm
WLY 6/C1/K		6 kg	0,1 g		360x290 mm
WLY 12/C1/R		12 kg	0,2 g		360x290 mm
WLY 12/C1/K		12 kg	0,2 g		360x290 mm
WLY 30/C1/R		30 kg	0,5 g		360x290 mm
WLY 30/C1/K		30 kg	0,5 g		360x290 mm
WLY 60/C2/R	•	60 kg	1 g	10 g	500x400 mm
WLY 60/C2/K	•	60 kg	1 g	10 g	500x400 mm
WLY 120/C2/R		120 kg	2 g		500x400 mm
WLY 120/C2/K		120 kg	2 g		500x400 mm

external calibration



-  Parts counting
-  Filling
-  Animal weighing
-  Density determination
-  Checkweighing
-  Percentage
-  Statistics
-  Formulation
-  Under-hook weighing
-  GLP procedures
-  Infrared sensors















Precision balances of WLY are the response for the growing market demands concerning simple operation and maximum automatization of the weighing process. Balances feature 5.7" colour touch screen panel. Y scales feature new software ensuring great ease of use.

Model	M	Max	d	e	Wymiar szalki
WLY 0,6/1,2/D2	•	0,6/1,2 kg	0,01/0,02 g	0,1/0,2 g	195×195 mm
WLY 1,2/3/D2	•	1,2/3 kg	0,02/0,05 g	0,2/0,5 g	195×195 mm
WLY 3/6/D2	•	3/6 kg	0,05/0,1 g	0,5/1 g	195×195 mm
WLY 6/12/D2	•	6/12 kg	0,1/0,2 g	1/2 g	195×195 mm
WLY 6/12/C1/R	•	6/12 kg	0,1/0,2 g	1/2 g	360×290 mm
WLY 6/12/C1/K	•	6/12 kg	0,1/0,2 g	1/2 g	360×290 mm
WLY 12/30/C1/R	•	12/30 kg	0,2/0,5 g	2/5 g	360×290 mm
WLY 12/30/C1/K	•	12/30 kg	0,2/0,5 g	2/5 g	360×290 mm
WLY 60/120/C2/R	•	60/120 kg	1/2 g	10/20 g	500×400 mm
WLY 60/120/C2/K	•	60/120 kg	1/2 g	10/20 g	500×400 mm

external calibration



-  Parts counting
-  Filling
-  Animal weighing
-  Density determination
-  Checkweighing
-  Percentage
-  Statistics
-  Formulation
-  Under-hook weighing
-  GLP procedures
-  Infrared sensors
-  Comparative weighing
-  Alibi memory



- Electronic level indicator
- Infrared proximity sensors



- Colorful touch-screen panel 5,7"



- Data exchange through USB storage devices



- Communication interfaces: Ethernet, USB (2 ports), RS232

Precision balances of APP/Y are the response for growing market demands concerning simple operation and maximum automatization of the weighing process. Measurement reliability and accuracy is assured by internal calibration triggered by time flow or temperature conditions. Balances feature 5.7" colour touch screen panel with new software for the highest convenience of use!


Model	M	Max	d	e	Pan size
APP 25/2Y1		25 kg	0,1 g		346x258 mm
APP 35/2Y1		35 kg	0,1 g		346x258 mm
APP 50/2Y1		50 kg	0,1 g		346x258 mm


external calibration




-  Parts counting
-  Filling
-  Animal weighing
-  Density determination
-  Checkweighing
-  Percentage
-  Statistics
-  Formulation
-  Under-hook weighing
-  GLP procedures


Balances series PS/X are new type of precision balances with large graphic backlit display and extended user menu. The balances comprise all the features and functions of balances series X and also the newest electronic and mechanical solutions and upgraded software. The electronic and mechanical structure is similar to balances series PS. PS/X series is equipped with 12 key membrane keyboard, which ensures easy and more intuitive operation for the user. Pan dimension in this series is 195x195 mm or 128x128 mm with a draught shield over the weighing pan. All the balances series PS/X feature internal calibration system. Each balance is equipped with RS 232 and RS485 outputs, PS/2 socket and additional LCD display plug. GLP procedure is available in a form of a report from balance calibration. Shape of the printout is modifiable. User name, project name, print of date and time, and print frame are user defined on a printout. Balances are equipped with optional weighing of loads outside the weighing pan, so called under hook weighing. It is an alternative for weighing loads with non standard dimensions or made of magnetic substances. Under hook weighing is additionally applied in case of density determination procedure.


Model		M	Max	d	e	Pan size
PS 200/2000/X	•	•	200/2000 g	0,001/0,01 g	0,01/0,1 g	128x128 mm
PS 250/X	•	•	250 g	0,001 g	0,01 g	128x128 mm
PS 450/X	•	•	450 g	0,001 g	0,01 g	128x128 mm
PS 750/X	•	•	750 g	0,001 g	0,01 g	128x128 mm
PS 1000/X	•		1000 g	0,001 g	0,01 g	128x128 mm
PS 1500/X	•	•	1500 g	0,01 g	0,1 g	195x195 mm
PS 2500/X	•	•	2500 g	0,01 g	0,1 g	195x195 mm
PS 4500/X	•	•	4500 g	0,01 g	0,1 g	195x195 mm
PS 6000/X	•	•	6000 g	0,01 g	0,1 g	195x195 mm
PS 8000/X			8000 g	0,01 g		195x195 mm


 internal calibration





-  Parts counting

-  Density determination


-  Checkweighing

-  Percentage

-  Under-hook weighing

-  GLP procedures

Balances series PS are equipped with 12 key front panel and LCD backlit display. Pan dimension in this series is 195x195 mm or 128x128 mm with a glass shield over the weighing pan which protects the load against possible breeze. Each balance has RS 232 and additional display outputs as standard. GLP procedure is available in a non-modifiable form of a report from balance calibration. Balances marked as C/1 are equipped with system of external calibration. Balances are equipped with optional weighing of loads outside the weighing pan, so called under hook weighing. It is an alternative for weighing loads with non standard dimensions or made of magnetic substances. Under hook weighing is additionally applied in case of density determination procedure.

Model		M	Max	d	e	Pan size
PS 200/2000/C/1		•	200/2000 g	0,001/0,01 g	0,01/0,1 g	128x128 mm
PS 210/C/1		•	210 g	0,001 g	0,01 g	128x128 mm
PS 360/C/1			360 g	0,001 g		128x128 mm
PS 510/C/1			510 g	0,001 g		128x128 mm
PS 750/C/1			750 g	0,001 g		128x128 mm
PS 1000/C/1			1000 g	0,001 g		128x128 mm
PS 1200/C/1		•	1200 g	0,01 g	0,1 g	195x195 mm
PS 2100/C/1		•	2100 g	0,01 g	0,1 g	195x195 mm
PS 3500/C/1			3500 g	0,01 g		195x195 mm
PS 4500/C/1			4500 g	0,01 g		195x195 mm
PS 6000/C/1			6000 g	0,01 g		195x195 mm
PS 8000/C/1			8000 g	0,01 g		195x195 mm

 internal calibration



Parts counting



Density determination



Checkweighing



Percentage



Under-hook weighing



GLP procedures

Balances series PS are equipped with 12 key front panel and LCD backlit display. Pan dimension in this series is 195x195 mm or 128x128 mm with a glass shield over the weighing pan which protects the load against possible breeze. Each balance has RS 232 and additional display outputs as standard. GLP procedure is available in a non-modifiable form of a report from balance calibration. Balances marked as C/2 are equipped with system of internal calibration triggered by time flow or temperature conditions. Balances are equipped with optional weighing of loads outside the weighing pan, so called under hook weighing. It is an alternative for weighing loads with non standard dimensions or made of magnetic substances. Under hook weighing is additionally applied in case of density determination procedure.

Model		M	Max	d	e	Pan size
PS 200/2000/C/2	•	•	200/2000 g	0,001/0,01 g	0,01/0,1 g	128x128 mm
PS 210/C/2	•	•	210 g	0,001 g	0,01 g	128x128 mm
PS 360/C/2	•	•	360 g	0,001 g	0,01 g	128x128 mm
PS 600/C/2	•	•	600 g	0,001 g	0,01 g	128x128 mm
PS 750/C/2	•		750 g	0,001 g		128x128 mm
PS 1000/C/2	•		1000 g	0,001 g		128x128 mm
PS 1200/C/2	•	•	1200 g	0,01 g	0,1 g	195x195 mm
PS 2100/C/2	•	•	2100 g	0,01 g	0,1 g	195x195 mm
PS 3500/C/2	•	•	3500 g	0,01 g	0,1 g	195x195 mm
PS 4500/C/2	•	•	4500 g	0,01 g	0,1 g	195x195 mm
PS 6000/C/2	•	•	6000 g	0,01 g	0,1 g	195x195 mm

internal calibration



Parts counting



Density determination



Checkweighing





Percentage



Under-hook weighing

Precision balances series APP/C are offered with weighing platform dimensions 365x258 mm. Balances are equipped with backlit LCD display. Each series of APP balance is offered with following capacities: 25, 30, 35 and 6/35 kg. Independently on version, APP balance is based on electromagnetic measuring system, external calibration (C/2 - internal calibration) and RS 232 output. Balance casing is made of aluminium, weighing pan is in stainless steel technology. Balances series APP have under hook weighing as standard solution. It is an alternative solution for weighing loads with non-standard dimensions and those creating magnetic field. Under hook weighing is also applied for density determination procedure.

Model		M	Max	d	e	Pan size
APP 25/2C/1			25 kg	0,1 g		346x258 mm
APP 30/2C/1			30 kg	0,1 g		346x258 mm
APP 35/2C/1			35 kg	0,1 g		346x258 mm
APP 6/35/2C/1			6/35 kg	1/5 g		346x258 mm
APP 6/35/2C/2	•	•	6/35 kg	1/5 g	1/5 g	346x258 mm
APP 50/2C/1			50 kg	0,1 g		346x258 mm

 internal calibration



Parts counting



Internal accumulator



Checkweighing



Percentage



Under-hook weighing











Peak hold

Model	M	Max	d	e	Pan size
WLC 0,6/B1	•	0,6 kg	0,01 g	0,1 g	125x145 mm
WLC 1,2/B1	•	1,2 kg	0,02 g	0,2 g	125x145 mm
WLC 1/A2		1kg	0,01 g		195x195 mm
WLC 1,2/3/A2	•	1,2/3 kg	0,02/0,05 g	0,2/0,5 g	195x195 mm
WLC 2/A2		2 kg	0,01 g		195x195 mm
WLC 3/6/A2	•	3/6 kg	0,05/0,1 g	0,5/1 g	195x195 mm
WLC 6/A2		6 kg	0,1 g		195x195 mm
WLC 6/12/A2	•	6/12 kg	0,1/0,2 g	1/2 g	195x195 mm
WLC 10/A2		10 kg	0,1 g		195x195 mm
WLC 20/A2		20 kg	0,1 g		195x195 mm
WLC 6/C1/R		6 kg	0,1g		290x360 mm
WLC 6/C1/K		6 kg	0,1g		290x360 mm
WLC 6/12/C1/R	•	6/12 kg	0,1/0,2 g	1/2 g	290x360 mm
WLC 6/12/C1/K	•	6/12 kg	0,1/0,2 g	1/2 g	290x360 mm
WLC 12/C1/R		12 kg	0,2g		290x360 mm
WLC 12/C1/K		12 kg	0,2g		290x360 mm
WLC 12/30/C1/R	•	12/30 kg	0,2/0,5 g	2/5 g	290x360 mm
WLC 12/30/C1/K	•	12/30 kg	0,2/0,5 g	2/5 g	290x360 mm
WLC 30/C1/R		30 kg	0,5g		290x360 mm
WLC 30/C1/K		30 kg	0,5g		290x360 mm
WLC 60/C2/R		60 kg	1g		400x500 mm
WLC 60/C2/K		60 kg	1g		400x500 mm
WLC 60/120/C2/R	•	60/120 kg	1/2 g	10/20 g	400x500 mm
WLC 60/120/C2/K	•	60/120 kg	1/2 g	10/20 g	400x500 mm

external calibration





Internal rechargeable accumulator as standard in balances series WLC C/2

-  Parts counting
-  Density determination
-  Checkweighing
-  Percentage
-  Under-hook weighing
-  GLP procedures
-  Peak hold
-  Internal accumulator

Balances series WLC C/2 are designed for fast and precise determination of mass in laboratory and industrial conditions. They can also be used in areas with no access to mains (230V), as their standard equipment includes internal rechargeable battery and RS 232 output. All models of WLC/C2 balance (pan size: 128x128 and 195x195) are equipped with stainless steel weighing platform and backlit LCD display providing good reading of weighing result. Balances series WLC C/2 feature the function of automatic internal calibration. Series A1 and A2 additionally have the option of weighing loads outside weighing platform (so called under hook weighing), where the load is hanged under the instrument. This is an alternative for weighing loads with non-standard dimensions and shapes. This method of weighing is also useful for determination of density of solids and liquids with application of standard functions of the balance.

Internal rechargeable cell as standard in balances series WLC C/2.

Model		M	Max	d	e	Pan size
WLC 0,6/A1/C/2	•	•	0,6 kg	0,01 g	0,1 g	128x128 mm
WLC 1/A2/C/2	•		1 kg	0,01 g		195x195 mm
WLC 1,2/A2/C/2	•	•	1,2 kg	0,02 g	0,2 g	195x195 mm
WLC 3/A2/C/2	•	•	3 kg	0,05 g	0,5 g	195x195 mm
WLC 6/A2/C/2	•	•	6 kg	0,1 g	1 g	195x195 mm

 internal calibration

BASIC
LEVEL

Parts counting



Internal accumulator



Checkweighing



Percentage



Summing



Peak hold



WTB balances are designed for fast and precise determination of mass in laboratory conditions. They can be used in locations where no power (230V) is accessible as they are equipped with internal rechargeable battery (6×AA NiMH). Balances are equipped with stainless steel weighing pan, RS 232 output and backlit LCD display.

Model	M	Max	d	e	Pan size
WTB 200		200 g	0,001 g		ø 115 mm
WTB 2000		2000 g	0,01 g		125×145 mm

external calibration

* dealer price will be 98EUR if minimal order quantity is 50pcs



AS/CT

PS/CT



Parts counting



Density determination



Percentage



Summing



Carat balances series APS/CT feature a backlit LCD display. Balance accuracy is guaranteed by system of automatic internal adjustment/calibration system, triggered by time flow and temperature changes. Balances series APS/CT are equipped with pan size ø 85 mm, glass draft shield with sliding top and side doors and readability 0,2 mg. The glass draft shield improves operation conditions, especially in areas with possible breeze.

Carat balances series PS/CT feature backlit LCD display, weighing pan 128x128 mm with glass draft shield and readability 1 mg. They are also accessible with 10 mg readability, and weighing pan 195x195 mm.

Model		M	Max	d	e	Pan size
PS 510/C/1/CT			510 g / 2550 ct	0,001g / 0,005 ct	0,01g / 0,05 ct	128x128 mm
PS 510/C/2/CT	•	•	510 g / 2550 ct	0,001g / 0,005 ct	0,01g / 0,05 ct	128x128 mm
PS 2100/C/1/CT			2100 g / 10500 ct	0,01g / 0,05 ct	0,1g / 0,5 ct	195x195 mm
PS 2100/C/2/CT	•	•	2100 g / 10500 ct	0,01g / 0,05 ct	0,1g / 0,5 ct	195x195 mm
APS 120/C/2/CT	•	•	120 g / 600 ct	0,0002g / 0,001 ct	0,002g / 0,01 ct	ø 85 mm
APS 220/C/2/CT	•	•	220 g / 1100 ct	0,0002g / 0,001 ct	0,002g / 0,01 ct	ø 85 mm
APS 320/C/2/CT	•		320 g / 1600 ct	0,0002g / 0,001 ct	0,002g / 0,01 ct	ø 85 mm

internal calibration



Parts counting



Filling



Animal weighing



Density determination



Checkweighing



Percentage



Statistics





Formulation



Under-hook weighing

PS/X/G balance is designed for density determination of cereals. It is equipped with system of automatic internal calibration, pan size 195x195 mm and big backlit graphic display with extended user menu. The density determination of cereals in loose state is carried out with application of precision balance series PS/X 4500/G and cereals density determination kit of 1l volume. The density is calculated automatically by balance's software (in accordance with tables on cereals density). Density determination kit is compatible with grains of: wheat, oats, barley, rye. Balance, as a precise measuring instrument, is equipped with control procedures complying with ISO/GLP, high capacity memory (tables on cereals density), and possibility of cooperation with a printer or a computer. Balances in standard feature RS 232 slot, PS/2 output and possibility of connecting an additional display. Quality of balances series PS/X has been confirmed by European certificate EC Type Approval. Balances are equipped with possibility of weighing loads outside the main weighing platform (so called under hook weighing). This means of mass measuring is an alternative for loads with non-standard dimensions and shapes and those which create magnetic field. Under hook weighing is also applied for density determination procedures.

Model		M	Max	d	e	Pan size
PS/X 4500/G	•	•	4500 g	0,01 g	0,1 g	195x195 mm
Cereals density determination kit						

 internal calibration

Scales for control of packaged goods (II class approved)

PS/X/KTP



Counting pieces



Checkweighing



Percentage



Summing



Under-hook weighing



Peak hold

PS/X/KTP scales have implemented module for control of packaged goods, supported by a data base with list of operators and goods. An effect of a control is a final report printed on a Kafka printer connected to weighing set. PS/X/KTP scales are equipped with graphic display, which indicates current stage of running control and its result. Each performed control is finished with a report which can be printed on a Kafka printer.

PS/X/KTP scale additionally, allows for sending the memory content to a computer in random moment of operation. The scale can be operated also by PS/2 keyboard connected to a port of balance.


On plugging an optional RS232/RS485 KR-01 converter, the PS/X balance can operate in a network multi-stand workstation – PC software KTP-NET.


Model	M	Max	d = e	Pan size
PS/X 750/KTP	•	750 g	0,01 g	128x128 mm
PS/X 1500/KTP	•	1500 g	0,1 g	195x195 mm
PS/X 2500/KTP	•	2500 g	0,1 g	195x195 mm
PS/X 4500/KTP	•	4500 g	0,1 g	195x195 mm
Converter RS232 / RS485 - KR-01				


Scales for control of packaged goods – dual range (PUE 7 terminal; II class approved; 2x6.000e)


WLY/KTP





-  Counting pieces


-  Filling


-  Animal weighing


-  Density determination


-  Checkweighing


-  Percentage

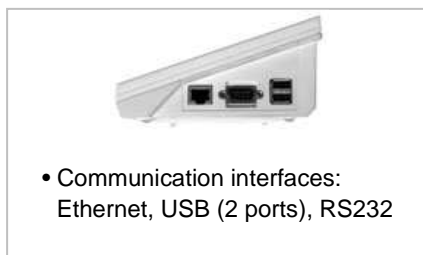
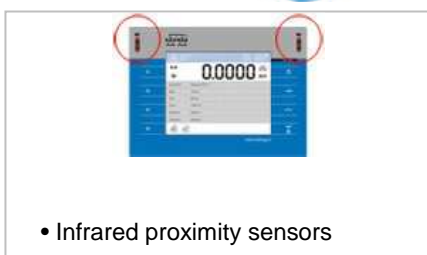
-  Statistics

-  Formulation

-  Under-hook weighing

-  GLP procedures

-  Infrared sensors



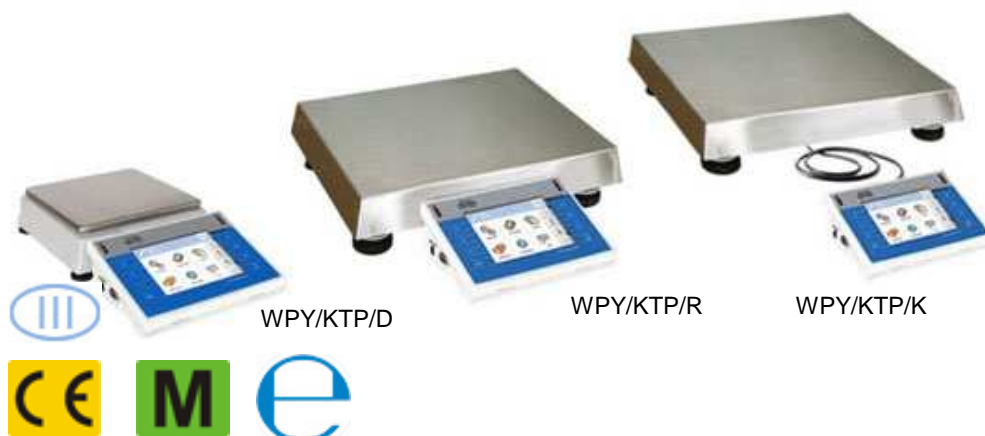
Single or multi-station version!


Counting scales of WLY are the response for growing market demands for simple operation and maximum automation of weighing process. Scales feature 5.7" colour touch screen panel. The new software ensures unrivalled convenience of use. Scales are working with: barcode scanner; label printers; RFID readers; PC equipment (keyboard; mouse; flash memory USB).


Model	M	Max	d = e	Pan size
WLY 0,6/1,2 /KTP/D2	•	0,6/1,2 kg	0,1/0,2 g	195x195 mm
WLY 1,2/3 /KTP /D2	•	1,2/3 kg	0,2/0,5 g	195x195 mm
WLY 3/6 /KTP /D2	•	3/6 kg	0,5/1 g	195x195 mm
WLY 6/12 /KTP □D2	•	6/12 kg	1/2 g	195x195 mm
WLY 6/12 /KTP /C1/R	•	6/12 kg	1/2 g	360x290 mm
WLY 6/12 /KTP /C1/K	•	6/12 kg	1/2 g	360x290 mm
WLY 12/30 /KTP /C1/R	•	12/30 kg	2/5 g	360x290 mm
WLY 12/30 /KTP /C1/K	•	12/30 kg	2/5 g	360x290 mm
WLY 60/120 /KTP /C2/R	•	60/120 kg	10/20 g	500x400 mm
WLY 60/120 /KTP /C2/K	•	60/120 kg	10/20 g	500x400 mm


Scales for control of packaged goods (PUE 7 terminal; III class approved; 2x3.000e)


WPY/KTP





-  Counting pieces


-  Filling


-  Animal weighing


-  Density determination


-  Checkweighing


-  Percentage

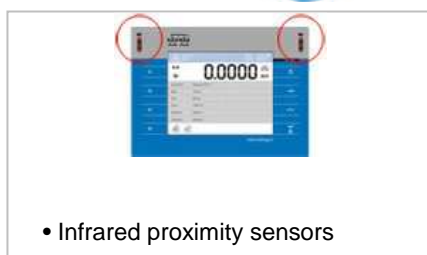
-  Statistics

-  Formulation

-  Under-hook weighing

-  GLP procedures

-  Infrared sensors



Single or multi-station version!

Sales Series WLY feature Pre-packed Good Control module, based on a database of products and operators. Control initialized automatically from the scale is automatically finalized after verifying appropriate number of packages (samples). The quantity of samples is determined by the software of the scale, depending on the product batch size. 5.7" touch screen is a major advantage allowing to present information on the current control and the result with unrivalled clarity and reliability.

Model	M	Max	d = e	Pan size
WPY 0,6/1,5/KTP/D2	•	0,6/1,5 kg	0,2/0,5 g	195x195 mm
WPY 1,5/3/KTP/D2	•	1,5/3 kg	0,5/1 g	195x195 mm
WPY 3/6/KTP/D2	•	3/6 kg	1/2 g	195x195 mm
WPY 3/6/KTP/C1/R	•	3/6 □g	1/2 g	360x290 mm
WPY 3/6/KTP/C1/K	•	3/6 kg	1/2 g	360x290 mm
WPY 6/15/KTP/C1/R	•	6/15 kg	2/5 g	360x290 mm
WPY 6/15/KTP/C1/K	•	6/15 kg	2/5 g	360x290 mm
WPY 15/30/KTP/C1/R	•	15/30 kg	5/10 g	360x290 mm
WPY 15/30/KTP/C1/K	•	15/30 kg	5/10 g	360x290 mm
WPY 30/60/KTP/C1/R	•	30/60 kg	10/20 g	360x290 mm
WPY 30/60/KTP/C1/K	•	30/60 kg	10/20 g	360x290 mm
WPY 15/30/KTP/C2/R	•	15/30 kg	5/10 g	400x500 mm
WPY 15/30/KTP/C2/K	•	15/30 kg	5/10 g	400x500 mm

Scales for control of packaged goods (HY terminal; stainless steel; III class approved; 2x3.000e)

HTY/KTP



Single or multi-station version!

Scales series HTY/KTP for Prepacked Goods Control in single stand version

Scales series Y/KTP have implemented module for Prepacked Goods Control designed with application of a database of assortments and operators. Control started by scale is automatically stopped after suitable packages (samples) number has been controlled. Number of the packages is fixed by scale program depending on product lot size. Scales are also equipped with graphic display (5,7" touch panel), on which information concerning currently performed control and its result are presented .

Control cycle proceeds as follows :

- operator choice,
- product choice,
- control start,
- weighings loading,
- automatic control end on weighing pre-defined number of packages,
- control report print .

Each carried out control is ended with final report containing all data required by a prepacked goods control process. The report is automatically saved in scale memory and at the same time it can be printed by printer connected to scale .

Software of HTY/KTP scales for PGC in single stand version is supported by computer application "Viewer KTP". It is used to monitor and/or print reports from processed prepacked goods controls and reports from processed controls of packages tares.

	Counting pieces
	Filling
	Animal weighing
	Density determination
	Checkweighing
	Percentage
	Statistics
	Formulation
	Under-hook weighing
	GLP procedures
	Infrared sensors

Model	M	Max	d = e	Pan size
HTY 1,5/3 /KTP/H1	•	1,5/3 kg	0,5/1 g	150x200 mm
HTY 3/6 /KTP/H1	•	3/6 kg	1/2 g	150x200 mm
HTY 3/6 /KTP/H2	•	3/6 kg	1/2 g	250x300 mm
HTY 6/15 /KTP/H2	•	6/15 kg	2/5 g	250x300 mm
HTY 6/15 /KTP/H3	•	6/15 kg	2/5 g	360x290 mm
HTY 15/30 /KTP/H3	•	15/30 kg	5/10 g	360x290 mm
HTY 30/60 /KTP/H3	•	30/60 kg	10/20 g	360x290 mm



- Moisture determination
- Dry mass determination
- Drying profiles
- Finish modes
- Halogen or infrared lamps
- GLP procedures
- Permeability of water vapour
- Higher level of temperature



Moisture analyzers are measuring devices designed specially for determination of moisture content in relatively small samples of various substances. Moisture analyzer MAC features:

- easy access provided by backlit LCD display
- drying profile (standard, mild, step, rapid).
- finish mode (manual, humidity stabilization, automatic, time defined).
- GLP/GMP printouts and reports
- halogen or infrared lamps
- standard and non-standard applications
- optimization of work due to halogen lamps mode

Maximal capacity of moisture analyzer series MAX ranges from 50 g /1 mg to 210 g/1 mg. Moisture content is measured with accuracy 0,01% (0,001% for samples up to 1,5g). Maximal drying temperature is 160°C (an extra cost option is a moisture analyzer with temperature upgraded to 250°C - **200EUR**).


Each moisture analyzer is equipped with aluminium weighing pan with dimensions ø 90mm.


A moisture analyzer and a specially designed kit enable determining water vapour permeability through samples of different substance.


Model	HAL	IR	160°	250°	Max	d	Pan size	Accuracy of moisture readout
MAC 50/NH	•		•		50 g	1 mg	ø90 mm	0,01/0,001 %
MAC 50/NP		•	•		50 g	1 mg	ø 90 mm	0,01/0,001 %
MAC 110/NH	•		•		110 g	1 mg	ø 90 mm	0,01 %
MAC 110/NP		•	•		110 g	1 mg	ø 90 mm	0,01 %
MAC 50/1/NH	•		•		50 g	0,1 mg	ø 90 mm	0,01/0,001 %
MAC 50/1/NP		•	•		50 g	0,1 mg	ø 90 mm	0,01/0,001 %
MAC 50/WH	•			•	50 g	1 mg	ø 90 mm	0,01/0,001 %
MAC 210/NH	•		•		210 g	1 mg	ø 90 mm	0,01 %
MAC 210/NP		•	•		210 g	1 mg	ø 90 mm	0,01 %
MAC 50/1/WH	•			•	50 g	0,1 mg	ø 90 mm	0,01/0,001 %
MAC 110/WH	•			•	110 g	1 mg	ø 90 mm	0,01 %
MAC 210/WH	•			•	210 g	1 mg	ø 90 mm	0,01 %


HAL halogen lamps **IR** IR emitters **160°** max. temp 160 °C **250°** max. temp 250°





-  Moisture determination


-  Dry mass determination

-  Drying profiles

-  Finish modes

-  Halogen or infrared lamps

-  GLP procedures

-  Permeability of water vapour

Moisture analyzers are measuring devices designed especially for determination of moisture content in relatively small samples of various substances. This special version called MAC 50/NG is designed to meet the requirements of HACCP (ang. Hazard Analysis and Critical Control Points) which is a systematic preventive approach to food safety and pharmaceutical safety that addresses physical, chemical, and biological hazards as a means of prevention rather than finished product inspection.

Both internal and external parts are produced without use of glass, heating element is a metal heater instead of halogen lamp.

Moisture analyzer MAC features:

- easy operation provided by backlit LCD display
- drying profiles (standard, mild, step, rapid).
- finish mode (manual, humidity stabilization, automatic, time defined).
- GLP/GMP printouts and reports
- metal heater as source of heat, power 400 W
- standard and non-standard applications
- optimization of work due to heater modes

Maximal capacity of moisture analyzer MAC/NG ranges from 50 g /0,1 mg to 210 g/1 mg. Moisture content is measured with accuracy 0,001% (0,0001% for MAC 50/1). Maximal drying temperature equals 160°C. Each moisture analyzer is equipped with aluminium weighing pan with dimensions ø 90mm. A moisture analyzer with a specially designed kit enables determining water vapor permeability through samples of different substances.

Model	Max	d	Pan size	Accuracy of moisture readout
MAC 50/NG	50 g	1 mg	Ø 90 mm	0,01/0,001 %
MAC 110/NG	110 g	1 mg	Ø 90 mm	0,01 %
MAC 50/1/ NG	50 g	0,1 mg	Ø 90 mm	0,01/0,001 %
MAC 210//NG	210 g	1 mg	Ø 90 mm	0,01 %



	Moisture determination
	Dry mass determination
	Drying profiles
	Finish modes
	Visualization of drying process
	Halogen or infrared lamps
	GLP procedures
	Permeability of water vapour
	Higher level of temperature

Moisture analyzers are measuring devices specially designed for determination of moisture content in relatively small samples of various substances. Moisture analyzer MAX is equipped with backlit graphic display, which makes the instrument's interface transparent and easy to use. User menu includes data base with 99 drying procedures, where each entry has its programmed name (for instance material name, its number, ID, etc). Moisture analyzer MAX features:


- easy access provided by backlit graphic display;
- standard and non-standard applications;
- available software language versions: Polish, English, German, French, Spanish, Russian, Czech;
- menu operation with peripheral PC keyboard;
- data base with 99 drying procedures;
- drying profile (standard, mild, step, rapid);
- finish mode (manual, automatic, time defined);
- visualization of drying process
- GLP/GMP printouts and reports
- halogen or infrared lamps


Maximal capacity of moisture analyzer series MAX is 50 g /0,1 mg (60 g/1 mg).


Moisture content is measured with accuracy 0,01% / 0,001%. Maximal drying temperature is 160°C (option ally, the moisture analyzer is available with max. temperature upgraded to 250°C). Each moisture analyzer is equipped with aluminium weighing pan with dimensions ø 90mm. A moisture analyzer and a specially designed kit enable determining water vapour permeability through samples of different substance.


Model	HAL	IR	160°	250°	Max	d	Pan size	Accuracy of moisture readout
MAX 50/NH	•		•		50 g	1 mg	ø 90 mm	0,01/0,001 %
MAX 50/NP		•	•		50 g	1 mg	ø 90 mm	0,01/0,001 %
MAX 60/NH	•		•		60 g	1 mg	ø 90 mm	0,01/0,001 %
MAX 60/NP		•	•		60 g	1 mg	ø 90 mm	0,01/0,001 %
MAX 50/1/NH	•		•		50 g	0,1 mg	ø 90 mm	0,01/0,001 %
MAX 50/1/NP		•	•		50 g	0,1 mg	ø 90 mm	0,01/0,001 %
MAX 50/WH	•			•	50 g	1 mg	ø 90 mm	0,01/0,001 %
MAX 60/WH	•			•	60 g	1 mg	ø 90 mm	0,01/0,001 %
MAX 50/1/WH	•			•	50 g	0,1 mg	ø 90 mm	0,01/0,001 %




-  Moisture determination

-  Dry mass determination

-  Drying profiles

-  Finish modes

-  Halogen or infrared lamps

-  GLP procedures

-  Higher level of temperature



Moisture analyzers are measuring devices designed specially for determination of moisture content in relatively small samples of various substances. Moisture analyzer MAC/2 features:

- easy access provided by backlit LCD display
- drying profile (standard, mild, step, rapid).
- finish mode (manual, humidity stabilization, automatic, time defined).
- GLP/GMP printouts and reports
- halogen lamps
- standard and non-standard applications
- optimization of work due to halogen lamps mode

Each moisture analyzer is equipped with aluminium weighing pan with dimensions \varnothing 90mm.

Model	HAL	IR	160°	250°	Max	d	Pan size	Accuracy of moisture readout
MAC 110/2/NH	•		•		110 g	10 mg	\varnothing 90 mm	0,01 %

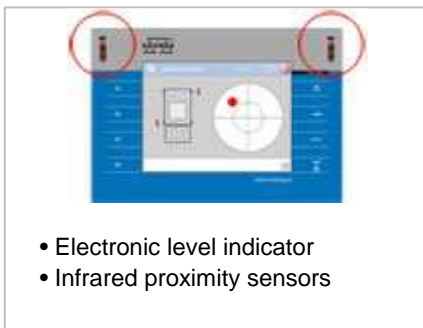
HAL halogen lamps **IR** IR emitters **160°** max. temp 160 °C **250°** max. temp 250°



Mass comparator module



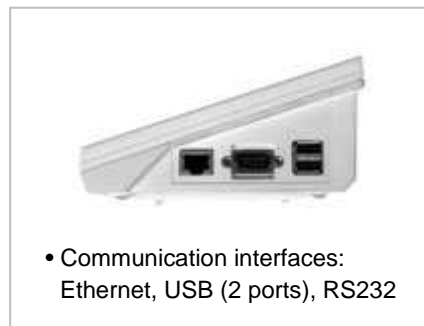
Infrared sensors



- Electronic level indicator
- Infrared proximity sensors



- Data exchange through USB storage devices



- Communication interfaces: Ethernet, USB (2 ports), RS232

	AKM-4/500	AKM-4/1	AKM-4/2
1 mg			
2 mg			
5 mg			
10 mg			
20 mg			
50 mg			
100 mg			
200 mg			
500 mg			
1 g			
2 g			
5 g			
10 g			
20 g			
50 g			
100 g	E1, E2, F1, F2, M1		
200 g	E1, E2, F1, F2, M1		
500 g	E1, E2, F1, F2, M1		
1 kg		E1, E2, F1, F2, M1	
2 kg		E1, E2, F1, F2, M1	
5 kg			E1, E2, F1, F2, M1
10 kg			E1, E2, F1, F2, M1
20 kg			E1, E2, F1, F2, M1
50 kg			E1, E2, F1, F2, M1
100 kg			E1, E2, F1, F2, M1
200 kg			E1, E2, F1, F2, M1
500 kg			E1, E2, F1, F2, M1
1000 kg			E1, E2, F1, F2, M1

Highlights:

- Elimination of error caused by human factor in the process of loading weights (repeatable conditions of load placing on instrument's platform);
- Automated process of mass comparison – weights are loaded fully automatically;
- Fully repeatable measurements of all loaded mass;
- Simultaneous measurement of 3 weights;
- Elimination of ambient conditions (temperature changes and humidity) influence on the process of mass comparison (mass comparator located in a chamber with constant ambient conditions).

Model	Max	d	Repeatability	Calibration range
AKM-4/500	500 g	0,005 mg	0,005 mg	100 g ÷ 500 g (E1÷M1)
AKM-4/1000	1 kg	0,01 mg	0,01 mg	200 g ÷ 1 kg (E1÷M1)
AKM-4/2000	2 kg	0,05 mg	0,05 mg	500 g ÷ 2 kg (E1÷M1)

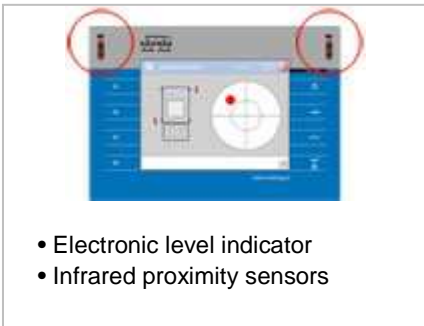


Mass comparator module



Infrared sensors

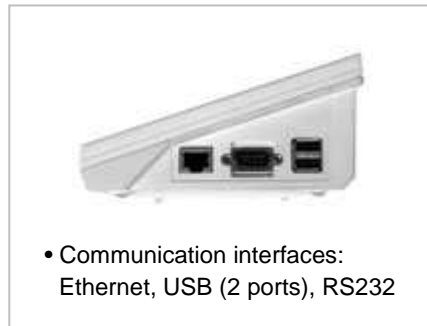
	AKM-2/10	AKM-2/20	AKM-2/50
E1			
E2			
F1			
F2			
M1			
1 mg			
2 mg			
5 mg			
10 mg			
20 mg			
50 mg			
100 mg			
200 mg			
500 mg			
1 g			
2 g			
5 g			
10 g			
20 g			
50 g			
100 g			
200 g			
500 g			
1 kg			
2 kg			
5 kg	E1, E2, F1, F2, M1	E1, E2, F1, F2, M1	E1, E2, F1, F2, M1
10 kg	E1, E2, F1, F2, M1	E1, E2, F1, F2, M1	E1, E2, F1, F2, M1
20 kg	E1, E2, F1, F2, M1	E1, E2, F1, F2, M1	E1, E2, F1, F2, M1
50 kg			E1, E2, F1, F2, M1
100 kg			
200 kg			
500 kg			
1000 kg			



- Electronic level indicator
- Infrared proximity sensors



- Data exchange through USB storage devices



- Communication interfaces: Ethernet, USB (2 ports), RS232

Highlights:

- Comparison of weights up to 50 kg;
- Fully repeatable weight loading on mass comparator's platform;
- Elimination of error caused by human factor in the process of loading weights (repeatable conditions of load placing on instrument's platform).

Model	Max	d	Repeatability	Calibration range
AKM-2/10	10 kg	0,1 mg	0,2 mg	E1-M1: 5 kg - 10 kg
AKM-2/50	20 kg	0,1 mg	0,3 mg	E1-M1: 10 kg - 20 kg
AKM-2/50	50 kg	1 mg	2 mg	E1-M1: 20 kg - 50 kg



Mass comparator module



Infrared sensors



- Electronic level indicator
- Infrared proximity sensors

- Colorful touch-screen panel 5,7"


- Data exchange through USB storage devices


- Communication interfaces: Ethernet, USB (2 ports), RS232

The newest line of Radwag Mass Comparators allows for calibration of mass standards and weights according to the recommendations of OIML (R-111) from 1mg to 50kg for E1 class and lower from 500kg to 200kg for class M1 and lower. The line comprises 6 types (13 models) each with 5,7 colour touch screen with new intuitive menu.

The comparators are used both for ensuring retraceability of mass measurements, and verification of weights in accordance with legal metrology. RADWAG Mass Comparators have gained recognition among Accredited Calibration Laboratories, in many countries.

Mass comparators series UYA/KO comprise two components. One of them holds the electronic module, and the other precise mechanical measuring system. Such solution guarantees elimination of temperature influence (warming of electronic elements) on the comparator's indications. Comparators series UYA/KO are equipped with esthetical, cylindrical shaped weighing chamber with glass draught shield and automatic opening door system. All elements of the weighing chamber are manufactured from glass or metal which minimize influence of electrostatic charges on weighing result.

Model		Max	d	Pan size	Calibration range
UYA 5/KO	•	5,1 g	0,1 µg	ø 14 mm	1mg - 5g (E1÷F2)

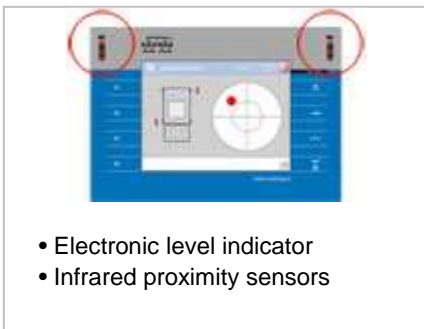
 internal calibration



Mass comparator module



Infrared sensors



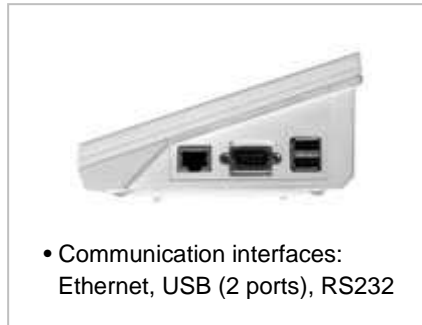
- Electronic level indicator
- Infrared proximity sensors



- Colorful touch-screen panel 5,7"



- Data exchange through USB storage devices



- Communication interfaces: Ethernet, USB (2 ports), RS232

The newest line of Radweg Mass Comparators allows for calibration of mass standards and weights according to the recommendations of OIML (R-111) from 1mg to 50kg for E1 class and lower from 500kg to 200kg for class M1 and lower. The line comprises 6 types (13 models) each with 5,7 colour touch screen with new intuitive menu.

The comparators are used both for ensuring retraceability of mass measurements, and verification of weights in accordance with legal metrology. RADWAG Mass Comparators have gained recognition among Accredited Calibration Laboratories, in many countries.

Mass comparators series MYA/KO comprise two components. One of them holds the electronic module, and the other precise mechanical measuring system. Such solution guarantees elimination of temperature influence (warming of electronic elements) on the comparator's indications. Comparators series MYA/KO are equipped with esthetical cylindrical shaped weighing chamber with glass draught shield and automatic opening door system. All elements of the weighing chamber are manufactured from glass or metal which minimize the influence of electrostatic charges on weighing result.

Model		Max	d	Pan size	Calibration range
MYA 100/KO	•	100 g	1 µg	ø 14 mm	50g-100g (E1÷M3)

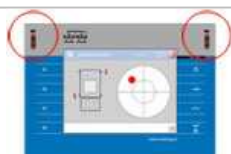
internal calibration



Mass comparator module



Infrared sensors



- Electronic level indicator
- Infrared proximity sensors



- Data exchange through USB storage devices




- Colorful touch-screen panel 5,7"

The newest line of Radwag Mass Comparators allows for calibration of mass standards and weights according to the recommendations of OIML (R-111) from 1mg to 50kg for E1 class and lower from 500kg to 200kg for class M1 and lower. The line comprises 6 types (13 models) each with 5,7 colour touch screen with new intuitive menu.

The comparators are used both for ensuring retraceability of mass measurements, and verification of weights in accordance with legal metrology. RADWAG Mass Comparators have gained recognition among Accredited Calibration Laboratories, in many countries.

Mass comparators series WAY/KO comprise two components. One of them holds the electronic module, and the other precise mechanical measuring system. Such solution guarantees elimination of temperature influence (warming of electronic elements) on the comparator's indications. Comparators are equipped with esthetical weighing chamber with glass draught shield. All elements of the weighing chamber are manufactured from glass or metal which minimize the influence of electrostatic charges on weighing result. Comparator is equipped with user friendly menu.

Model		Max	d	Repeatability	Calibration range
WAY 500 /KO		500 g	0,01 mg	0,02 mg	100 g ÷ 500g (E1÷M1)
WAY 1 /KO		1 kg	0,01 mg	0,05 mg	200 g ÷ 1kg (E1÷M1)
WAY 2 /KO		2 kg	0,1 mg	0,1 mg	500 g ÷ 2kg (E1÷M1)

 internal calibration



Mass comparator module



Infrared sensors



• Colorful touch-screen panel 5,7"



• Communication interfaces: Ethernet, USB (2 ports), RS232




• Data exchange through USB storage devices



• Electronic level indicator: alarm function / programmable acceptable tilts

The comparators are used both for ensuring traceability of mass measurements, and verification of weights in accordance with legal metrology. RADWAG Mass Comparators have gained recognition among Accredited Calibration Laboratories, in many countries.

Mass comparators series APP/Y/KO comprise two components. One of them holds the electronic module, and the other precise mechanical measuring system. High measuring accuracy is guaranteed by semi-automatic adjustment system with external standard mass. The weighing pan made of aluminium is covered with cork layer and centring holders for the weights. Comparator is equipped with user friendly menu.

Model		Max	d	Repeatability	Calibration range
APY 10 /KO		10 kg	0,1 mg	0,5 mg	5kg-10kg (E1÷M3)
APY 20 /KO		20 kg	1 mg	2 mg	10kg-20kg (E1÷M3)



XAY 200 /KB



PSY 1 /KB



Mass comparator module



Infrared sensors



• Colorful touch-screen panel 5,7"



• Communication interfaces
Ethernet, USB (2 ports), RS232



• Data exchange through USB
storage devices



• Electronic level indicator: alarm
function / programmable acceptable
tilts

Model		Max	d	Repeatability	Calibration range
XAY 200 /KB	•	200 g	0,01 mg	0,05 mg	1mg – 200g (F2÷M1)
PSY 1 /KB	•	1 k g	1 mg	1 mg	500 g – 1 kg (F2÷M1)

internal calibration



Mass comparator module



Infrared sensors

- Electronic level indicator: alarm function / programmable acceptable tilts

- Communication interfaces: Ethernet, USB (2 ports), RS232

- Data exchange through USB storage devices

- Colorful touch-screen panel 5,7"

The comparators are used both for ensuring traceability of mass measurements, and verification of weights in accordance with legal metrology. RADWAG Mass Comparators have gained recognition among Accredited Calibration Laboratories, in many countries.

Mass comparators series APY/KB comprise two components. One of them holds the electronic module, and the other precise mechanical measuring system. High measuring accuracy is guaranteed by semi-automatic adjustment system with external standard mass. The weighing pan made of aluminium is covered with cork layer and centring holders for the weights. Comparator is equipped with user friendly menu.

Model		Max	d	Repeatability	Calibration range
APY 25 /KB		25 kg	10 mg	10 mg	2kg-25kg (F2) 1kg – 25kg (M1÷M3)
APY 50 /KB		50 kg	100 mg	100 mg	20kg-50kg (F2) 5kg – 50kg (M1÷ M3)



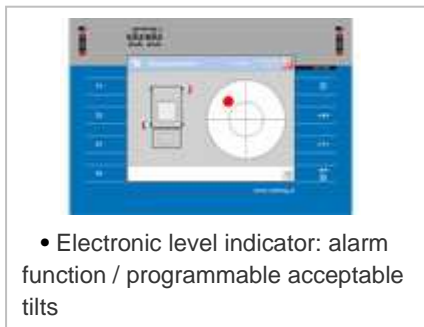
Mass comparator module



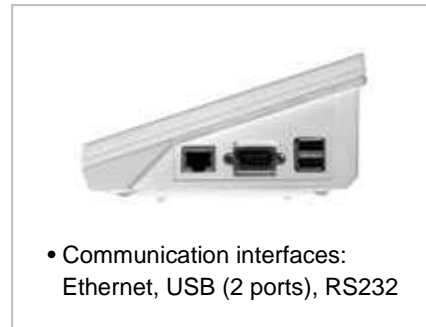
Infrared sensors



- Data exchange through USB storage devices



- Electronic level indicator: alarm function / programmable acceptable tilts



- Communication interfaces: Ethernet, USB (2 ports), RS232


The newest line of Radwag Mass Comparators allows for calibration of mass standards and weights according to the recommendations of OIML (R-111) from 1mg to 50kg for E1 class and lower from 500kg to 200kg for class M1 and lower. The line comprises 6 types (13 models) each with 5,7 colour touch screen with new intuitive menu.


The comparators are used both for ensuring retraceability of mass measurements, and verification of weights in accordance with legal metrology. RADWAG Mass Comparators have gained recognition among Accredited Calibration Laboratories, in many countries.

Mass comparators series WPY/KO comprise two components. One of them holds the electronic module, and the other precise multi-sensor measuring system.

The weighing pan made of steel is equipped with centring rings enabling precise placement of the weights. Comparator is equipped with user friendly menu.

Prices does not include automatic loader.

Model		Max	d	Pan size	Calibration range
WPY 200/KB		200 kg	2 g	1270x1100 mm	100kg - 200 kg (M1÷M3)
WPY 1000/KO		1000 kg	10 g	1270x1100 mm	500kg - 1000 kg (M1÷M3)

 internal calibration

Additional equipment for laboratory balances

Model	Microbalances	Analytical balances	Precision balances	Moisture analyzers
Anti-vibration table - mild steel construction	•	•	•	•
Anti-vibration table□- stainless steel construction	•	•	•	•
Laboratory weighing table	•	•		
Additional LCD display WD-3	•	•	•	
Anti□draught shield			•	
Anti-static ionizer	•	•	•	
Density determination kit		•	•	
Ambient conditions module	•	•	•	
Foot button for Tare and Print functions	•	•	•	
PC keyboard PS/2		•	•	•
Pipettes calibration kit for MYA	•			
Pipettes calibration kit for XA/Y balance		•		
Pipettes calibration kit for XA/X balance		•		
Power adapter with battery and charger	•	•	•	
Rack for under hook weighing		•	•	
Air density determination kit	•	•		
Set for determination of water vapour permeability				•
Suitcase for balance			•	
Computer software Pipettes	•	•		
Computer software PW-Win	•	•	•	•
Computer software Rad-Key	•	•	•	•
Computer software Rec-FS	•	•	•	
E2R Moisture Analyzers – single workstation licence				•
E2R Moisture Analyzers – multiple workstations licence				•
Thermal printer Kafka 1/RG	•	•	•	•
Thermal printer Kafka 1/RG Portable	•	•	•	•
Thermal printer Kafka 1/Z/RG	•	•	•	•
Thermal printer Kafka 1/Z/RG Portable	•	•	•	•
Thermal printer Kafka SQS	•	•	•	
Dot-matrix printer Epson TM-U220A	•	•	•	
Dot-matrix printer Epson TM-U220B	•	•	•	
Dot-matrix printer Epson TM-U220D	•	•	•	
Label printer Citizen CLP 521	•	•	•	
Label printer Citizen CLP 621	•	•	•	
Label printer Citizen CLP 631	•	•	•	
Label printer Citizen CLP S700	•	•	•	
Control thermometer PT-101				•
Disposable pans (set of 50 pcs.)				•
Infra-red emitter				•
RS 232 cable P0108 (scale - computer)	•	•	•	•
RS 232 cable P0136 (scale - Kafka printer)	•	•	•	•
RS 232 cable P0151 (scale - Epson or Citizen printer)	•	•	•	•
Power loop module 4-20mA AP2-1	•	•	•	

Fully autoclavable automatic pipettes



Radweg pipettes represent a product line described as "liquid handling", designed for fast determination and transport of small volume liquids. They are characterized by high accuracy of dosing, compact and durable construction. Pipette mechanism provides excellent accuracy and repeatability with relatively small forces to be applied when pressing pipette button. All pipettes are checked for the requirements on accuracy and repeatability, according to norms EN ISO 8655:2003. Each pipette has control certificate including test results, and attached user manual describes pipetting techniques. Pipettes series RP-AF and RP-AV should be sterilized as whole device, with no need to re-calibrate the device.

Accessories for pipettes:



• Racks



• Sets of tips



• Stand for pipettes

Fixed volume automatic pipettes RP-AF

Model	Volume	Tips
RP-AF 2,5	2,5 μ l	300 μ l
RP-AF 5	5 μ l	300 μ l
RP-AF 10	10 μ l	300 μ l
RP-AF 25	25 μ l	300 μ l
RP-AF 50	50 μ l	300 μ l
RP-AF 100	100 μ l	300 μ l
RP-AF 200	100 μ l	300 μ l
RP-AF 250	250 μ l	1000 μ l
RP-AF 500	500 μ l	1000 μ l
RP-AF 1000	1000 μ l	1000 μ l
RP-AF 2000	2000 μ l	5000 μ l
RP-AF 5000	5000 μ l	5000 μ l

Adjustable volume automatic pipettes RP-AV

Model	Volume	Increment	Tips
RP-AV 0,5-10	0.5-10 μ l	0,1 μ l	10 μ l
RP-AV 2-20	2-20 μ l	0,1 μ l	10 μ l
RP-AV 5-50	5-50 μ l	0,5 μ l	300 μ l
RP-AV 10-100	10-100 μ l	0,5 μ l	300 μ l
RP-AV 20-200	20-200 μ l	1 μ l	300 μ l
RP-AV 100-1000	100-1000 μ l	5 μ l	1000 μ l
RP-AV 500-5000	500-5000 μ l	50 μ l	5000 μ l

Automatic pipettes with autoclavable lower assembly



Radweg pipettes represent a product line described as "liquid handling", designed for fast determination and transport of small volume liquids. They are characterized by high accuracy of dosing, compact and durable construction. Pipette mechanism provides excellent accuracy and repeatability with relatively small forces to be applied when pressing pipette button. All pipettes are checked for the requirements on accuracy and repeatability, according to norms EN ISO 8655:2003. Each pipette has control certificate including test results, and attached user manual describes pipetting techniques. Pipettes series RP-PF and RP-PV have only the tip ejector and body sterilized. As it is sterilized, and pipette is assembled, it is not necessary to re-calibrate the pipette.

Accessories for pipettes:



• Racks



• Sets of tips



• Stand for pipettes

Fixed volume automatic pipettes RP-PF

Model	Volume	Tips
RP-PPF 5	5 μ l	300 μ l
RP-PF 10	10 μ l	300 μ l
RP-PF 25	25 μ l	300 μ l
RP-PF 50	50 μ l	300 μ l
RP-PF 100	100 μ l	300 μ l
RP-PF 200	100 μ l	300 μ l
RP-PF 250	250 μ l	1000 μ l
RP-PF 500	500 μ l	1000 μ l
RP-PF 1000	1000 μ l	1000 μ l
RP-PF 2000	2000 μ l	5000 μ l
RP-PF 5000	5000 μ l	5000 μ l

Adjustable volume automatic pipettes RP-PV

Model	Volume	Increment	Tips
RP-PV 0,2-2,5	0.2-2,5 μ l	0,01 μ l	10 μ l
RP-PV 0,5-10	0.5-10 μ l	0,1 μ l	10 μ l
RP-PV 2-20	2-20 μ l	0,1 μ l	10 μ l
RP-PV 5-50	5-50 μ l	0,5 μ l	300 μ l
RP-PV 10-100	10-100 μ l	0,5 μ l	300 μ l
RP-PV 20-200	20-200 μ l	1 μ l	300 μ l
RP-PV 100-1000	100-1000 μ l	5 μ l	1000 μ l
RP-PV 500-5000	500-5000 μ l	50 μ l	5000 μ l

Workstation for Pipettes Calibration



In order to ensure measurement reproducibility, and to meet all the requirements resulting from supervision over measuring equipment and to facilitate the process of pipettes calibration RADWAG recommends effective and ergonomic solution of calibrating automatic pipettes conducted by a user - complete Workstation for Pipettes Calibration.

Purpose:

1. Calibration of automatic pipettes from 1 μ l to 10ml:
 - with fixed volume
 - with adjustable volume
2. Weighing of samples with maximum capacity up to 21g and accuracy $d=1\mu$ g (in standard weighing chamber - pan \varnothing 30mm)

Unit contents:

1. Table for calibration with anti-vibration table
2. Analytical microbalance MYA 21/P
3. Ionizer
4. Environmental module:
 - probe for temperature, humidity and pressure measurement
 - probe for water temperature measurement
5. Used water kit:
 - sink for used water (for right or left-handed)
 - container for used water
6. Computer set:
 - PC
 - software Pipettes Radwag (pre-installed on PC)
 - LCD monitor
 - keyboard and mouse
7. Power supply
8. Armrests

Model

Workstation for Pipettes Calibration

Additional Equipment for automatic pipettes

OMNITIP - Racks

Model	Volume	Box content
R 10	10 µl	10 racks + 960 tips
R 300	300 µl	10 racks + 960 tips
R 1000	1000 µl	5 racks + 480 tips

OMNITIP - Sets

Model	Volume	Set content
ST 10	10 µl	box + 6 racks + 576 tips (starter)
ST 300	300 µl	box + 6 racks + 576 tips (starter)
ST 1000	1000 µl	box + 6 racks + 288 tips (starter)
SR 10	10 µl	10 racks + 960 tips (reload)
SR 300	300 µl	10 racks + 960 tips (reload)
SR 1000	1000 µl	10 racks + 576 tips (reload)
BT 10	10 µl	1000 tips (bulk)
BT 300	300 µl	1000 tips (bulk)
BT 1000	1000 µl	250 tips (bulk)
BT 5000	5000 µl	150 tips (bulk)

Stands for pipettes

Model	Specification
SA 100	white plastic stand for 4 pipettes
SA 200	white plastic stand for 6 pipettes

Single mass standards



	E1	E2	F1	F2	M1
Mass					
1 mg					
2 mg					
5 mg					
10 mg					
20 mg					
50 mg					
100 mg					
200 mg					
500 mg					

	E1	E2
Mass		
1 mg		
2 mg		
5 mg		
10 mg		
20 mg		
50 mg		
100 mg		
200 mg		
500 mg		



Single mass standards

(in wooden box; DKD or RADWAG calibration certificate)



	E1	E2	F1	F2	M1
Mass					
1 g					
2 g					
5 g					
10 g					
20 g					
50 g					
100 g					
200 g					
500 g					
1 kg					
2 kg					
5 kg					
10 kg					
20 kg					

Single mass standards
 (in plastic screwed box; DKD or RADWAG calibration certificate)



	E2	F1	F2	M1
Mass				
1 g				
2 g				
5 g				
10 g				
20 g				
50 g				
100 g				
200 g				
500 g				
1 kg				
2 kg				
5 kg				
10 kg				







Sets of mass standards (in wooden box; DKD or RADWAG calibration certificate)









		E1	E2	F1	F2	M1
Mass	Quantity of pieces					
1 mg - 500 mg	12					
1 g - 100 g	9					
1 g - 200 g	11					
1 g - 500 g	12					
1 g - 2 kg	15					
1 kg - 5 kg	4					

Sets of fraction standards and mass standards
Wire standards / knob shape

Special weights

	Name	Range of mass	Price EUR
	Weights with handle	25 kg & 50 kg	individual price
	Block rectangular weights	5 kg - 50 kg	individual price
	Slotted weights	1 g - 20 kg	individual price
	Hooked weights	1 g - 20 kg	individual price
	Cast iron weights	100 kg - 2000 kg	individual price
	Glass bell jars with base plates	1 mg - 50 kg	individual price

Accessories for weights

Tweezers – stainless steel with silicon tip				
	105 mm	130 mm	160 mm	300 mm
Tweezers – stainless steel with carbon fiber tip				
	105 mm	130 mm	160 mm	300 mm
Tweezers - carbon				
	105 mm			
Cotton gloves (pair)				
				
Plastic boxes for single mass weights				
	od 1 mg do 20 g	od 50 g do 500 g	od 1 kg do 5 kg	10 kg
Dust brushes				
	10 x 100 mm	20 x 110 mm	30 x 150 mm	30 x 250 mm