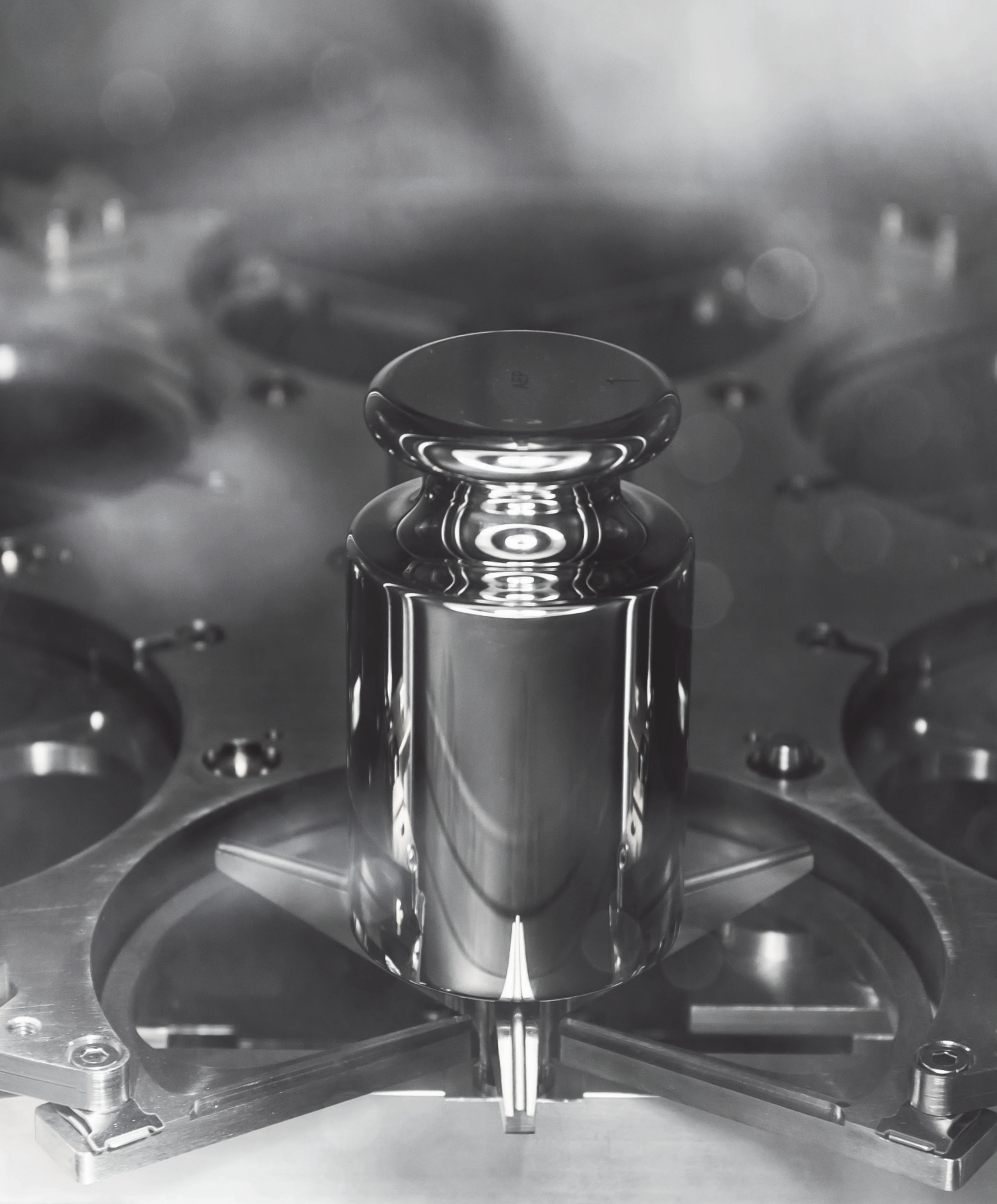




# Mass Comparators



[radwag.com](http://radwag.com)

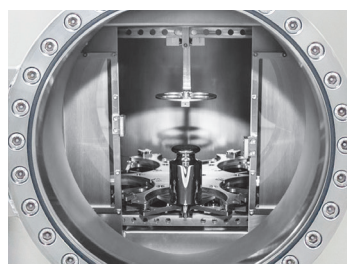


# **Automatic Vacuum Mass Comparators**

# AVK 5Y

## Automatic Vacuum Mass Comparator

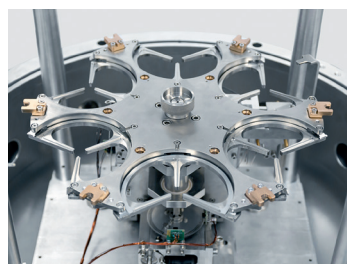
Discover an advanced metrology solution with the AVK 1000.5Y automatic vacuum mass comparator. This innovative piece of equipment is designed for precise mass comparison under vacuum conditions of 10<sup>-6</sup> mbar, eliminating the influence of air on measurements. Equipped with state-of-the-art pumps, it ensures efficient air extraction, thereby speeding up the measurement process and increasing the accuracy of the results.



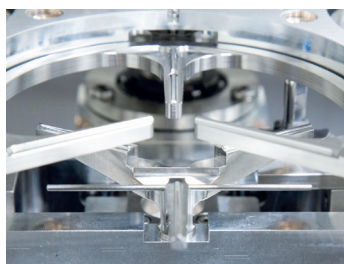
Self-centring suspended weighing pan elimination of a non-centricity error thanks to the use of a special suspended weighing pan.



See **AVK 5Y**  
on [radwag.com](https://www.radwag.com)



6-position mass standard magazine for calibration of cylindrical standards Ø(22-95)x110 and silicon spheres with a diameter from 40 to 100 mm



The automatic calibration mechanism with potential replacement of the adjustment weight for a lower-mass weight in order to check sensitivity of the comparator.



The comparator is supplied with a special mass standard feeder with a separate pumping unit.



The LOAD LOCK system is used to load and unload a mass standard from a dedicated container that allows transferring and storing the mass standard in the vacuum.

	AVK 1000.5Y.CP	AVK 1000.5Y	AVK 1000.5Y.LLC
Max capacity [Max]	1002 g	1002 g	1002 g
Readability [d]	0.1 µg	0.1 µg	0.1 µg
Standard repeatability [5% Max]*	1 µg	0.8 µg **	0.8 µg **
Standard repeatability [Max]*	1.5 µg	1 µg **	1 µg **

\*Repeatability is expressed as a standard deviation determined for 6 ABBA cycles. Standard deviation is experimentally determined under ambient conditions for calibration of E1 class mass standards specified in OIML R111 (Table C.1.) document.

\*\* Repeatability achieved in vacuum.

# AVK 1000.5Y.CP

## Automatic Constant Pressure Mass Comparator

It is supplied with a 6-position mass standard magazine, a self-centring suspended weighing pan and automatic external adjustment with a (replaceable) standard weight.

The comparator can also be used to compare silicon spheres with a diameter from 40 to 100 mm, as well as cylindrical standards of  $\varnothing$  (22-95)x110. Model Maximum



# AVK 1000.5Y

## Vacuum Mass Comparator Expanded with Pumps

The constant-pressure comparator can be equipped with a first-level vacuum pump and turbomolecular pump as well as a vacuum meter.

The comparator has advantages of the constant-pressure comparator, can generate a vacuum of  $10^{-6}$  mBar, and allows performing comparison in the vacuum.



# AVK 1000.5Y.LLS

## Vacuum Mass Comparator Expanded with Pumps and Load-Lock

The vacuum comparator can be additionally equipped with a "LOAD LOCK" system. It is responsible for feeding mass standards and is supplied with a separate pump unit that allows generating a vacuum similar to the one that is present in the main chamber.

Thanks to lower volume of the loading chamber, similar vacuum can be generated a way faster (around 4 hours). Afterwards it is possible to load or unload one mass standard from the main chamber.

WThe RADWAG's original "LOAD LOCK" system allows loading the standard from the main chamber into the special vacuum container and transferring the mass standard in the vacuum.







# Density Measurement

## Mass Comparators

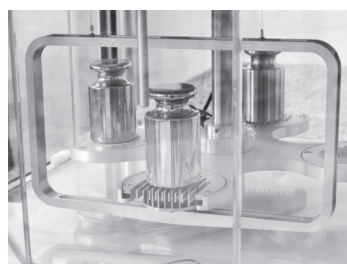
# AGV 5Y

## Automatic comparator for determination of density and volume of mass standards

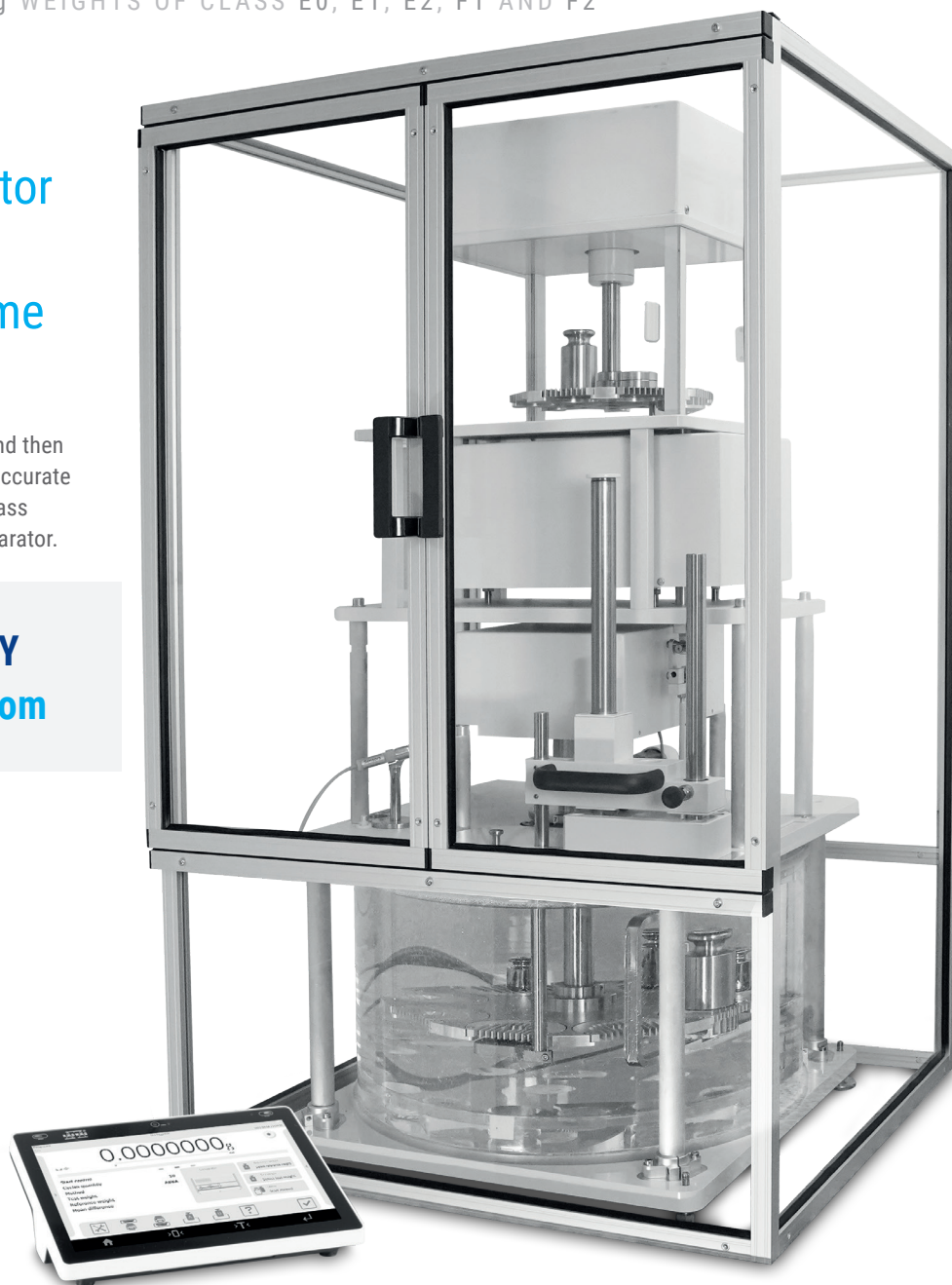
Weighing a mass standard first “in air” and then in a liquid of known density is the most accurate method for determining the density of mass standards. This is used in the AGV comparator.



See **AGV 5Y**  
on [radwag.com](https://www.radwag.com)



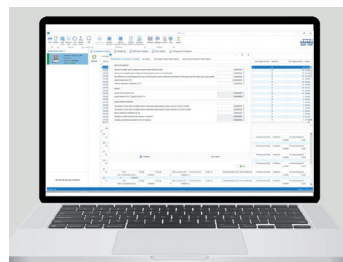
The weighing pan suspended on wires with a diameter of 0.3 mm allows minimising non-centricity errors and eliminates the impact of surface tension of the liquid.



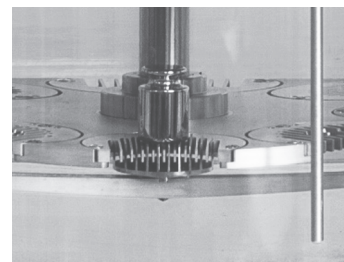
Thanks to a special structure of the insert, the comparator offers a wide measuring range (from 1 g to 1 kg) and is adapted to comparing silica hemispheres.



The comparator features specially designed feeder to load and unload the magazine with mass standards.



Dedicated software for determination of mass standard's density and volume. It also allows determining (checking) the liquid density.



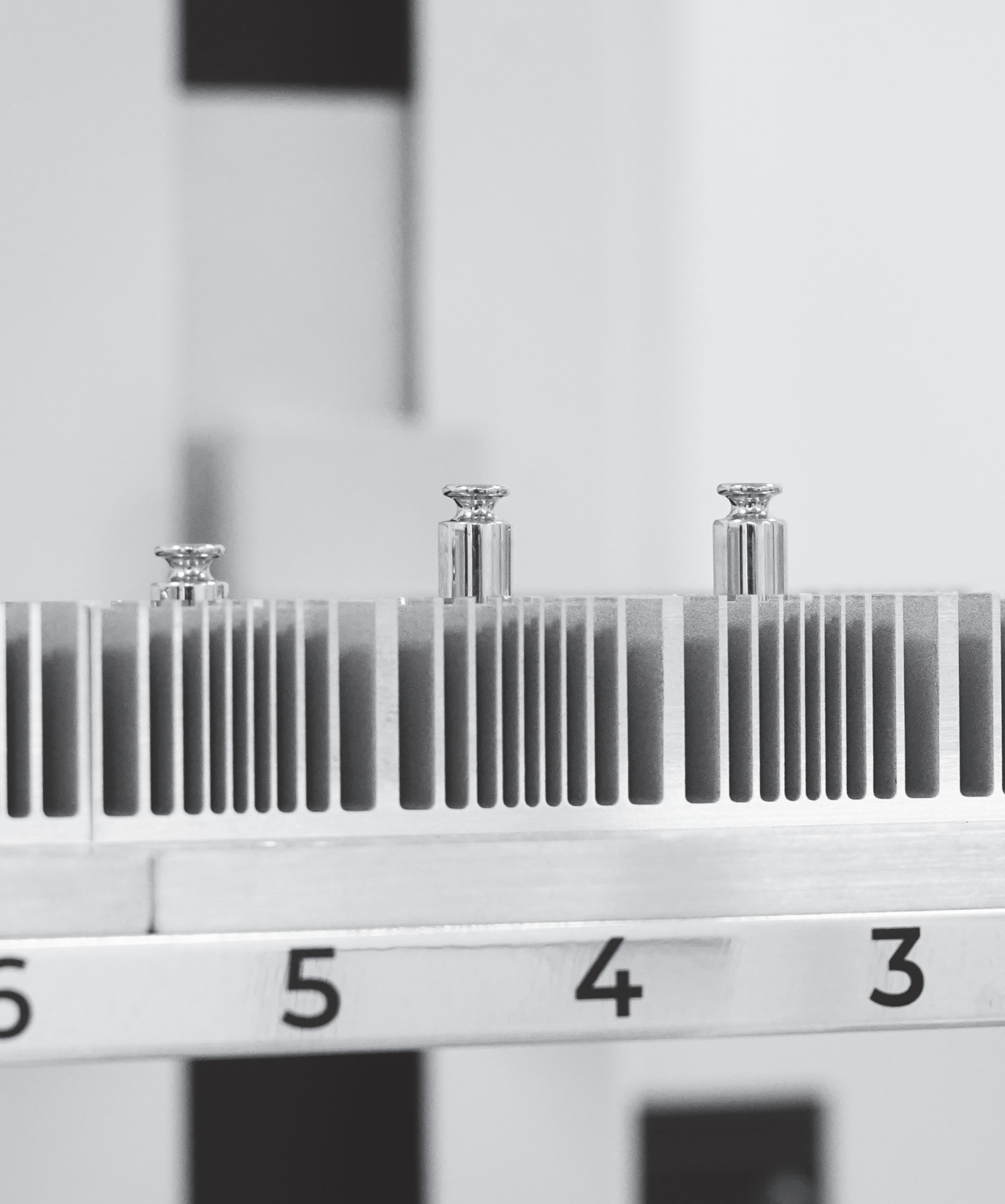
The device is equipped with a high-quality thermometer with a reading unit of 0,001°C and three temperature sensors.

### AGV-2 20.5Y

### AGV-8 1000.5Y

Max capacity [Max]	26.1 kg	1.11 kg
Readability [d]	1 mg	0.01 mg
Standard repeatability [5% Max]*	2 mg	0.04 mg
Standard repeatability [Max]*	3 mg	0.05 mg

\*Repeatability is expressed as a standard deviation determined for 6 ABBA cycles. Standard deviation is experimentally determined under ambient conditions for calibration of E1 class mass standards specified in OIML R111 (Table C.1.) document.



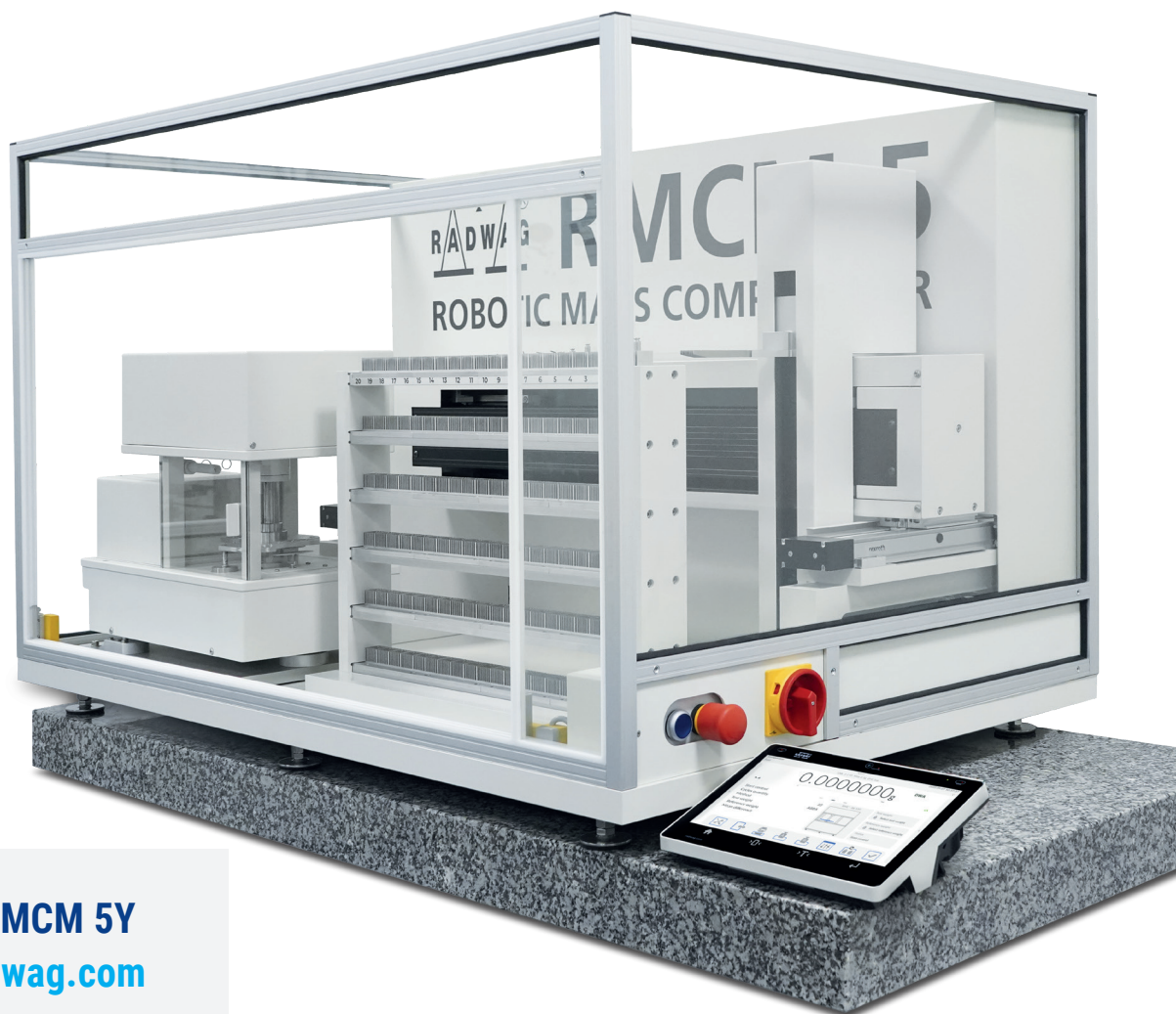
# Mini Robotic Mass Comparators

# RMCM 5Y

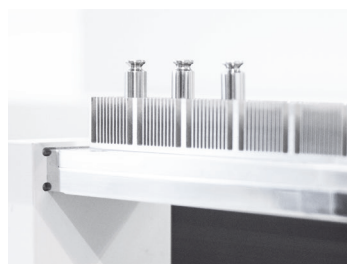
## Mini Robotic Mass Comparators

The RMCM Robotic Mass Comparator is a compact device that houses the functionality of a mass comparator and a robotic transport system.

The comparator is supplied with a 120-position standard magazine and allows performing a fully automatic dissemination with a division of up to 3 mass standards.



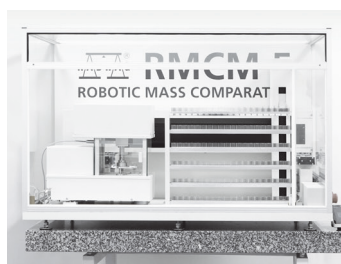
See **RMCM 5Y**  
on [radwag.com](http://radwag.com)



The mass standard magazine offers up to 120 magazine positions.



The mass comparator facilitates a complete dissemination process.



Combining the advantages of a robotic and automated system ensures better repeatability by not opening the chamber throughout the cycle.



The mass comparator allows real-time monitoring of ambient conditions.

	RMCM 5.5Y	RMCM 10.5Y
Max capacity [Max]	6.1 g	10.1 g
Readability [d]	0.1 µg	0.1 µg
Standard repeatability [5% Max]*	0.25 µg	0.25 µg
Standard repeatability [Max]*	0.4 µg	0.6 µg

\*Repeatability is expressed as a standard deviation determined for 6 ABBA cycles. Standard deviation is experimentally determined under ambient conditions for calibration of E1 class mass standards specified in OIML R111 (Table C.1.) document.



# Robotic Mass Comparators

# RMC 5Y

## Robotic Mass Comparators

The RMC Robotic Mass Comparator guarantees full automation of the robotic mass standard comparison process. The synergy between the robot and the automaton translates into unparalleled repeatability results and other advantages, which we discuss below.



Elimination of a eccentricity error thanks to the use of a special suspended weighing pan.



See **RMC 5Y**  
on [radwag.com](http://radwag.com)



Combination of advantages of the robotic system and automatic system. A few-time better repeatability in view of stable ambient conditions during comparison due to the fact that the weighing chamber does not open throughout the cycle.



Fully automated change of the comparison range in comparators equipped with inner ballasts.



The mass comparator enables a complete dissemination process, which is possible due to placing the intermediate mass standard magazine inside the mass comparator chamber. This significantly shortens comparison duration and reduces wear and tear of the transport robot.



The mass standard magazine offers up to 100 magazine positions, this number is conditioned by a comparator model. the device enables comparison of weights of all shapes compliant with OIML recommendations, using just one universal insert.

	<b>RMC 100.5Y</b>	<b>RMC 1000.5Y</b>	<b>RMC 10000.5Y</b>	<b>RMC 20000.5Y</b>
Max capacity [Max]	106 g	1020 g	10110 g	20200 g
Readability [d]	0.1 µg	1 µg	0.01 mg	0.1 mg
Standard repeatability [5% Max]*	0.5 µg	3 µg	0.05 mg	0.15 mg
Standard repeatability [Max]*	0.8 µg	4 µg	0.05 mg	0.2 mg

\*Repeatability is expressed as a standard deviation determined for 6 ABBA cycles. Standard deviation is experimentally determined under ambient conditions for calibration of E1 class mass standards specified in OIML R111 (Table C.1.) document.

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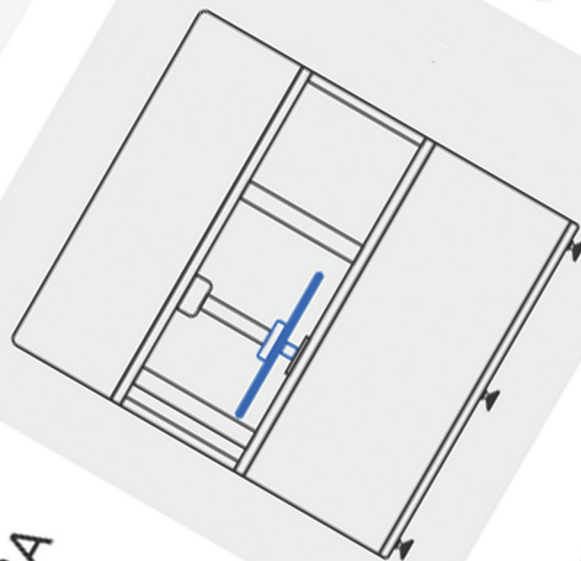
10  
ABBA

Max

Reference weight  
Select reference weight



Test weight



# Automatic Nano Mass Comparator



# NANO.AK-4.5Y

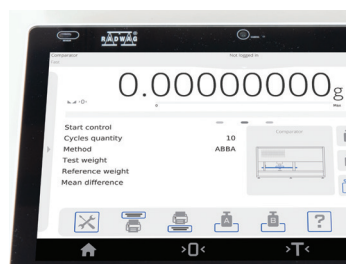
## Automatic Nano Mass Comparator

The NANO.AK-4/500.5Y automatic nano-comparator, thanks to the elimination of the "human factor" as well as air drafts and temperature changes, is characterised by the highest repeatability of measurements – significantly better than manual comparators.

The monitoring element of the comparator is a digital module with an automatic mass loader located in the comparator chamber. Operation takes place via a mass display connected to the comparator controller. The supervisory elements are not mechanically integrated into the structure, so that the comparator chamber can be isolated from external influences.



See **NANO.AK-4.5Y**  
on **radwag.com**



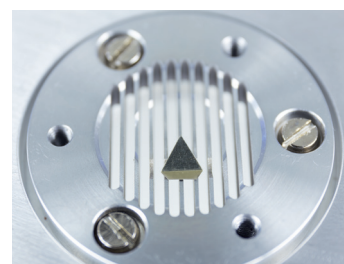
No other mass comparator in the world calibrates mass standards starting from 50 µg with the readability of up to 10 ng.



Compact device dimensions facilitate its use on a standard measurement workstation.



User-friendly and functional software guides you through preparation process of complete calibration plan within just a few minutes.



Comparison can be carried out for weights of all shapes with use of just one universal weighing pan.

### AK-4/500.5Y

Max capacity [Max]	510 mg
Readability [d]	10 ng
Standard repeatability [5% Max]*	0.04 µg
Standard repeatability [Max]*	0.06 µg

\*Repeatability is expressed as a standard deviation determined for 6 ABBA cycles. Standard deviation is experimentally determined under ambient conditions for calibration of E1 class mass standards specified in OIML R111 (Table C.1.) document.



# Automatic Mass Comparators

# UMA-5Y

## Automatic Mass Comparators



See **UMA-5Y**  
on [radwag.com](http://radwag.com)



The UMA automatic comparators, thanks to excluding the “human factor”, as well as the temperature changes and the air drifts, feature the highest measurements repeatability. Thanks to the consistent structure of the device, the mass standards are located close to each other, which enables to shorten the comparison time to minimum.

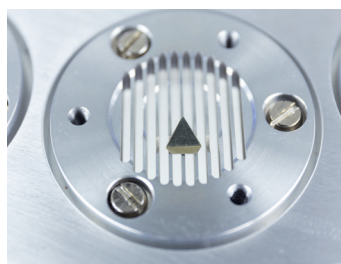
The device is produced with 18 or 36 magazine positions - it has magazine for maximum of 36 weights. This is a very universal solution, which enables both comparison of the whole sets of weights in one process and the comparison of just a few weights of the same mass.



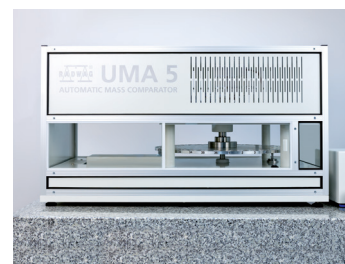
The weighing pan has been designed to enable measurement of very small samples with very high precision. This also secures a weight against wedging.



User-friendly and functional software guides you through preparation process of complete calibration plan within just a few minutes.



Comparison can be carried out for weights of all shapes with use of just one universal weighing pan.



Compact size guarantees operation of the device at any laboratory workstation. Possibility of comparison of many weights at a time adds to comparator's versatility.

	UMA-5.5Y	UMA 10.5Y	UMA 100.5Y	UMA 200.5Y	UMA 1000.5Y
Max capacity [Max]	6.1 g	10 g	110 g	210 g	1060 g
Readability [d]	0.0001 mg	0.0001 mg	0.001 mg	0.001 mg	0.005 mg
Standard repeatability [5% Max]*	0.2 µg	0.2 µg	1.5 µg	2.5 µg	8 µg
Standard repeatability [Max]*	0.4 µg	0.7 µg	2 µg	4 µg	12 µg

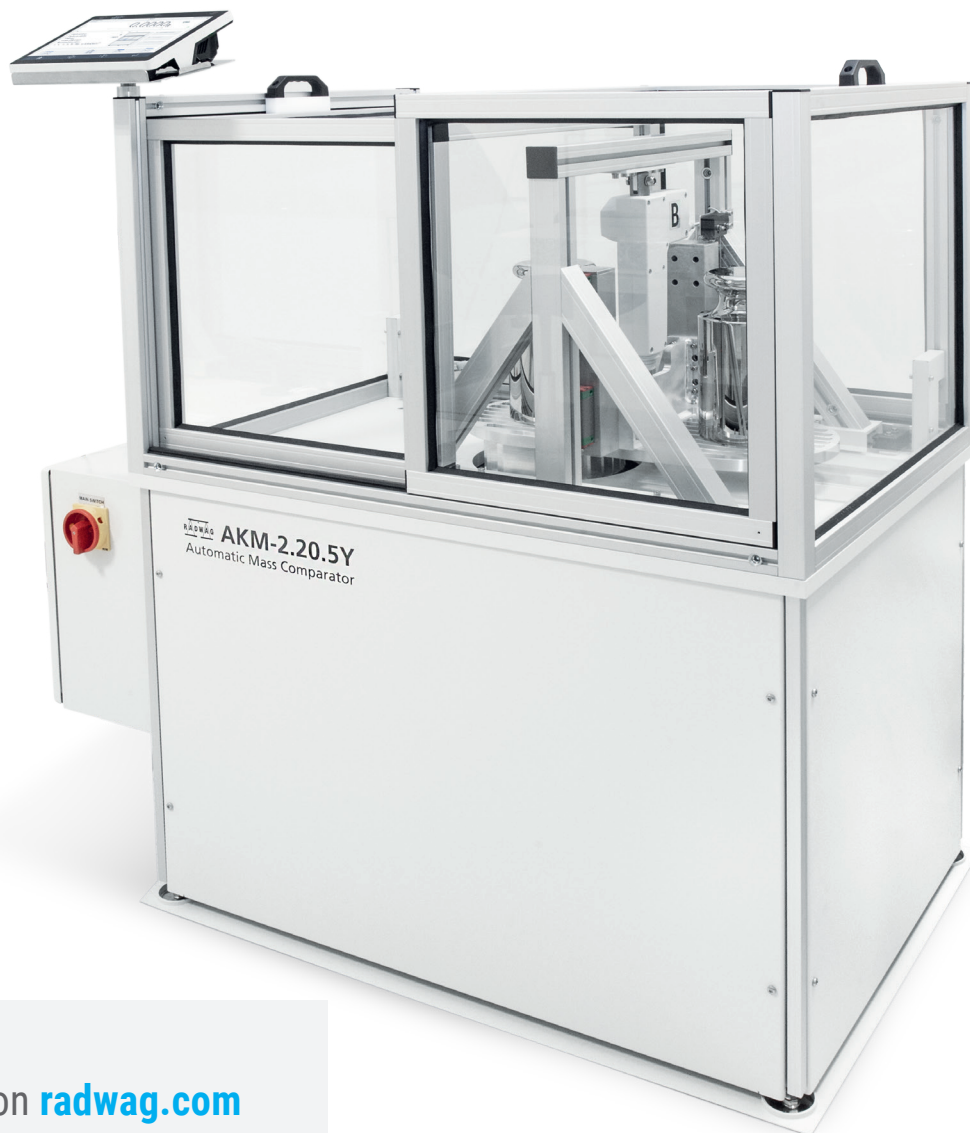
\*Repeatability is expressed as a standard deviation determined for 6 ABBA cycles. Standard deviation is experimentally determined under ambient conditions for calibration of E1 class mass standards specified in OIML R111 (Table C.1.) document.

# AKM-2.5Y

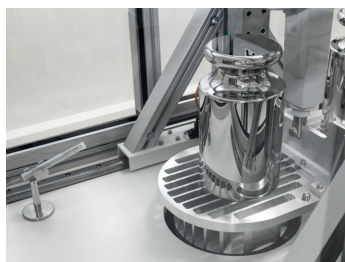
## Automatic Mass Comparators

As it is equipped with automatic mass feeders, the AKM.5Y mass comparator is used for automatic determination of mass deviations for an individual test weight in one cycle.

The automatic comparator is widely used in the mass measuring laboratories, in particular in E- and F-class weight certifying units.



See **AKM-2.5Y** on [radwag.com](https://www.radwag.com)



The automatic mass loader (loading robot) features a basis with self-centering fields, lift and weighing module equipped with a self-centering pan.



Fully automated change of the comparison range in comparators equipped with inner ballasts.



2-position magazine for 1 reference standard and 1 test standard.



Sturdy design of the table, featuring heavy granite stone and robust rubber shock absorbers, reduces effect of vibrations to the absolute minimum.

	AKM-2.20.5Y	AKM-2.50.1.5Y	AKM-2.50.5Y
Max capacity [Max]	20.5 kg	50.2 kg	51 kg
Readability [d]	0.1 mg	0.1 mg	1 mg
Standard repeatability [5% Max]*	0.15 mg	0.4 mg	–
Standard repeatability [Max]*	0.2 mg	0.6 mg	2 mg

\*Repeatability is expressed as a standard deviation determined for 6 ABBA cycles. Standard deviation is experimentally determined under ambient conditions for calibration of E1 class mass standards specified in OIML R111 (Table C.1.) document.

# AK-4.5Y

## Automatic Mass Comparators

The AK-4.5Y automatic mass comparators are used for the automatic determination of mass deviations of test standards with minimal possible operator intervention. The devices allow the determination of mass deviations in a wide range from 10 g to as much as 10 kg in a single cycle for the three test weights. The AK-4 series sets the highest standard for professional automatic mass comparators.



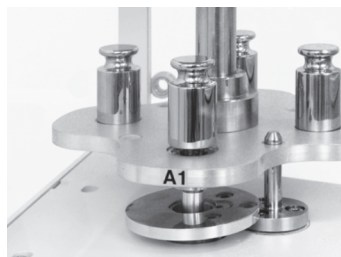
See **AK-4.5Y** on [radwag.com](https://www.radwag.com)



Weight positioning of sliding nature prevents errors of eccentricity.



RADWAG solutions intended for automatic comparators, i.e. positioning mechanism, guarantee extremely precise setting of weight on a weighing pan, performed each time the turntable has been rotated.



Extraordinary design of the weighing pan enables both, comparison of mass being combination of 3 weights, and standard comparison of 1 weight.



Fully automated change of the comparison range in comparators equipped with inner ballasts.

	<b>AK-4.100.5Y</b>	<b>AK-4.100.1.5Y</b>	<b>AK-4.1000.5Y</b>	<b>AK-4.1000.1.5Y</b>
Max capacity [Max]	110 g	110 g	1.02 kg	1.02 kg
Readability [d]	0.001 mg	0.1 µg	0.005 ng	0.001 mg
Standard repeatability [5% Max]*	1.5 µg	0.6 µg	8 µg	1.7 µg
Standard repeatability [Max]*	2 µg	0.8 µg	15 µg	2 µg

	<b>AK-4.2000.5Y</b>	<b>AK-4.5000.5Y.KO</b>	<b>AK-4.10000.5Y.KO</b>
Max capacity [Max]	2.05 kg	5.05 kg	10.05 kg
Readability [d]	0.01 mg	0.01 mg	0.01 mg
Standard repeatability [5% Max]*	12 µg	15 µg	15 µg
Standard repeatability [Max]*	15 µg	20 µg	20 µg

\*Repeatability is expressed as a standard deviation determined for 6 ABBA cycles. Standard deviation is experimentally determined under ambient conditions for calibration of E1 class mass standards specified in OIML R111 (Table C.1.) document.



# Manual Mass Comparators

COMPARISON OF 1 mg – 5 g WEIGHTS  
OF CLASS E1, E2, F1, F2, M1 AND M2

# UYA 5Y.KO

## Manual Mass Comparators

The UYA 5Y KO manual mass comparators are designed to meet the high demands of precision mass measurement. They feature automatic adjustment, which registers temperature changes and eliminates indication deviations due to unstable operating environments. As a result, automatic adjustment improves the readability of measurements.



See **UYA 5Y.KO**  
on [radwag.com](http://radwag.com)



Automatically opened transparent weighing chamber of UYA 5Y.KO mass comparator provides utmost visibility of the weight subjected to comparison.



Complex databases offer unlimited access to information on mass standards, customers and tasks along with preview of reports on carried out comparisons.

COMPARISON OF 100 g – 50 kg WEIGHTS  
OF CLASS E1, E2, F1, F2, M1 AND M2

# APP 5Y.KO

## Manual Mass Comparators

APP 5Y.KO mass comparators enable measurements within a wide range, from 100 g to as much as 50 kg. The use of a special pan design enables several standards of different weights to be placed at one time without adversely affecting the result.



See **APP 5Y.KO**  
on [radwag.com](http://radwag.com)



A weighing pan with a mechanical centring system and a self-centring pan facilitate precise placement of mass standards and reduction of eccentricity.



Fully automated change of the comparison range in comparators equipped with inner ballasts.

	UYA 6.5Y.KO	APP 10.5Y.KO	APP 30.5Y.KO	APP 64.5Y.KO
Max capacity [Max]	6.1 g	10.2 kg	30.5 kg	64 kg
Readability [d]	0.1 µg	0.1 mg	1 mg	10 mg
Standard repeatability [5% Max]*	0.2 µg	0.35 mg	2 mg	13 mg
Standard repeatability [Max]*	0.4 µg	0.4 mg	4 mg	18 mg

\*Repeatability is expressed as a standard deviation determined for 6 ABBA cycles. Standard deviation is experimentally determined under ambient conditions for calibration of E1 class mass standards specified in OIML R111 (Table C.1.) document.

# XA 5Y.KO

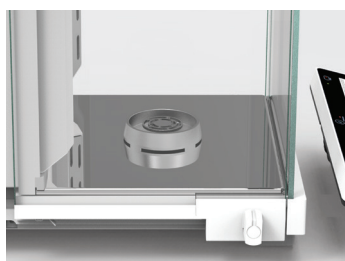
## Manual Mass Comparators

XA 5Y.A.KO mass comparators have been equipped with transparent weighing chamber featuring automatically opened door.

XA 5Y.A.KO mass comparators serve not only comparison purposes, they can be used for weighing processes and other related operations that are typical for standard analytical balances of XA 5Y.A series.



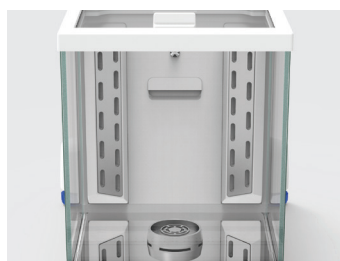
See **XA 5Y.KO** on [radwag.com](https://www.radwag.com)



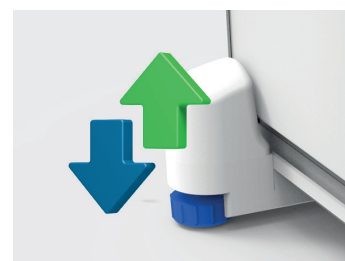
Spacious and airtight weighing chamber of XA 5Y.A.KO mass comparator features automatically opened door.



Openwork weighing pan significantly reduces ambient conditions influence on the measurement.



Transparent weighing chamber of XA 5Y.A.KO mass comparator, protecting the weighing pan, provides utmost visibility of the tested weight.



Semi-automatic levelling system is a standard feature of each 5Y series mass comparator.

	XA 6.5Y.KO	XA 21.5Y.KO	XA 52.5Y.KO	XA 200.5Y.KO
Max capacity [Max]	6 g	21 g	52 g	210 g
Readability [d]	0.001 mg	0.001 mg	0.005 mg	0.01 mg
Standard repeatability [5% Max]*	1.2 µg	1.2 µg	2.5 µg	0.005 mg
Standard repeatability [Max]*	2 µg	3 µg	6 µg	0.025 mg

\*Repeatability is expressed as a standard deviation determined for 6 ABBA cycles. Standard deviation is experimentally determined under ambient conditions for calibration of E1 class mass standards specified in OIML R111 (Table C.1.) document.

# WAY 5Y.KO

## Manual Mass Comparators

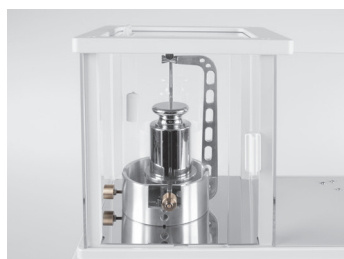
The WAY 5Y.KO mass comparators, thanks to the use of a special hanging pan, ensure accurate measurements regardless of the initial position of the standard. This ensures that the position of the test and reference standards is always the same. The precision of the measurements is further enhanced by the construction of materials that minimise the influence of electrostatics and the internal, automatic adjustment.



See **WAY 5Y.KO**  
on [radwag.com](http://radwag.com)



Weighing pan, made of the best quality non-magnetic stainless steel, features centrally positioned markings allowing easy and precise weights placement.



Glass draft shield minimizes influence of air drafts on comparison process. the glass with special conductive coating supports discharge of static electricity.



Fully automated change of the comparison range in comparators equipped with inner ballasts.



Ring-shaped draft shield encircling the weighing pan, apart from protecting the pan against air drafts, prevents potential shocks that could be applied accidentally to the weighing pan while loading the weight.

	WAY 100.5Y.KO	WAY 200.5Y.KO	WAY 500.5Y.KO	WAY 1.5Y.KO
Max capacity [Max]	110 g	210 g	520 g	1.02 kg
Readability [d]	0.001 mg	0.001 mg	0.01 mg	0.01 mg
Standard repeatability [5% Max]*	2.5 µg	3 µg	0.01 mg	0.025 mg
Standard repeatability [Max]*	3 µg	4 µg	0.02 mg	0.03 mg

	WAY 2.5Y.KO	WAY 5.5Y.KO	WAY 1200.5Y.KO	WAY 5100.5Y.KO
Max capacity [Max]	2.3 kg	5.05 kg	1200 g	5100 g
Readability [d]	0.1 mg	0.1 mg	0.1 mg	0.1 mg
Standard repeatability [5% Max]*	0.08 mg	0.15 mg	0.08 mg	0.8 mg
Standard repeatability [Max]*	0.1 mg	0.2 mg	0.1 mg	1 mg

\*Repeatability is expressed as a standard deviation determined for 6 ABBA cycles. Standard deviation is experimentally determined under ambient conditions for calibration of E1 class mass standards specified in OIML R111 (Table C.1.) document.

# HRP 5Y.KO

## Manual Mass Comparators

HRP 5Y.KO mass comparators have been equipped with large weighing platform featuring markings allowing you to place the weights centrally and precisely.



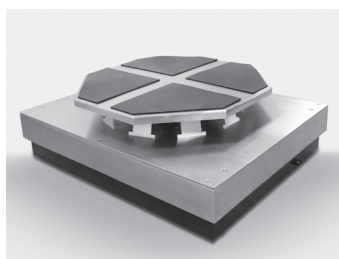
See **HRP 5Y.KO** on [radwag.com](http://radwag.com)



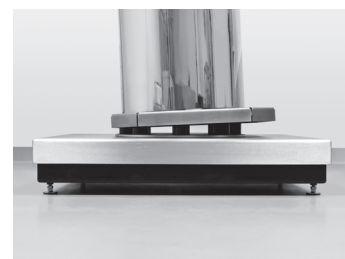
Precisely marked weighing platform of HRP 5Y.KO comparator is of great help when trying to place the weight accurately in the center.



Colour 5.7" touchscreen comes standard with all RADWAG manufactured comparators.



HRP mass comparators have been equipped with special self-centering weighing pan to provide both greater comfort of operation and reduced off-center load error.



The self-centering weighing pan has been designed in order to enable stabilising and levelling of weights that are put off the center, plus to allow comparison of weights of atypical shape.

	HRP 150.1.5Y.KO	HRP 200.5Y.KO	HRP 500.5Y.KO	HRP 500.1.5Y.KO
Max capacity [Max]	151 kg	210 kg	510 kg	510 kg
Readability [d]	0.05 g	0.2 g	0.5 g	0.1 g
Standard repeatability [5% Max]*	0.1 g	0.4 g	0.6 g	0.2 g
Standard repeatability [Max]*	0.15 g	0.6 g	1.5 g	0.4 g

	HRP 1000.5Y.KO	HRP 1000.1.5Y.KO	HRP 2000.5Y.KO
Max capacity [Max]	1050 kg	1050 kg	2100 kg
Readability [d]	1 g	0.5 g	2 g
Standard repeatability [5% Max]*	1.5 g	0.9 g	2.5 g
Standard repeatability [Max]*	2.5 g	1.2 g	5 g

\*Repeatability is expressed as a standard deviation determined for 6 ABBA cycles. Standard deviation is experimentally determined under ambient conditions for calibration of E1 class mass standards specified in OIML R111 (Table C.1.) document.

COMPARISON OF 200 kg – 2000 kg WEIGHTS  
OF CLASS M1 AND M2

# HRP 5Y.KB

## Manual Mass Comparators

HRP 5Y.KB mass comparators have been equipped with large weighing platform featuring markings allowing you to place the weights centrally and precisely.

COMPARISON OF 1 kg – 50 kg WEIGHTS  
OF CLASS F1, F2, M1 AND M2

# 5Y.PM.KB

## Manual Mass Comparators

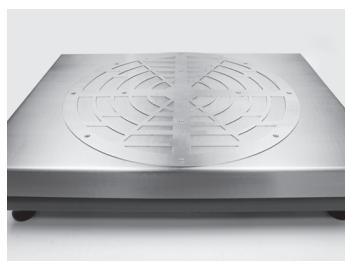
5Y.PM.KB mass comparators have been equipped with an open-work weighing pan featuring centering holders that facilitate precise weights placement.



See **HRP 5Y.KB** on [radwag.com](https://www.radwag.com)



See **5Y.PM.KB** on [radwag.com](https://www.radwag.com)



Precisely marked weighing platform of HRP 5Y.KB comparator is of great help when trying to place the weight accurately in the center.



Colour 5.7" touchscreen comes standard with all RADWAG manufactured comparators.



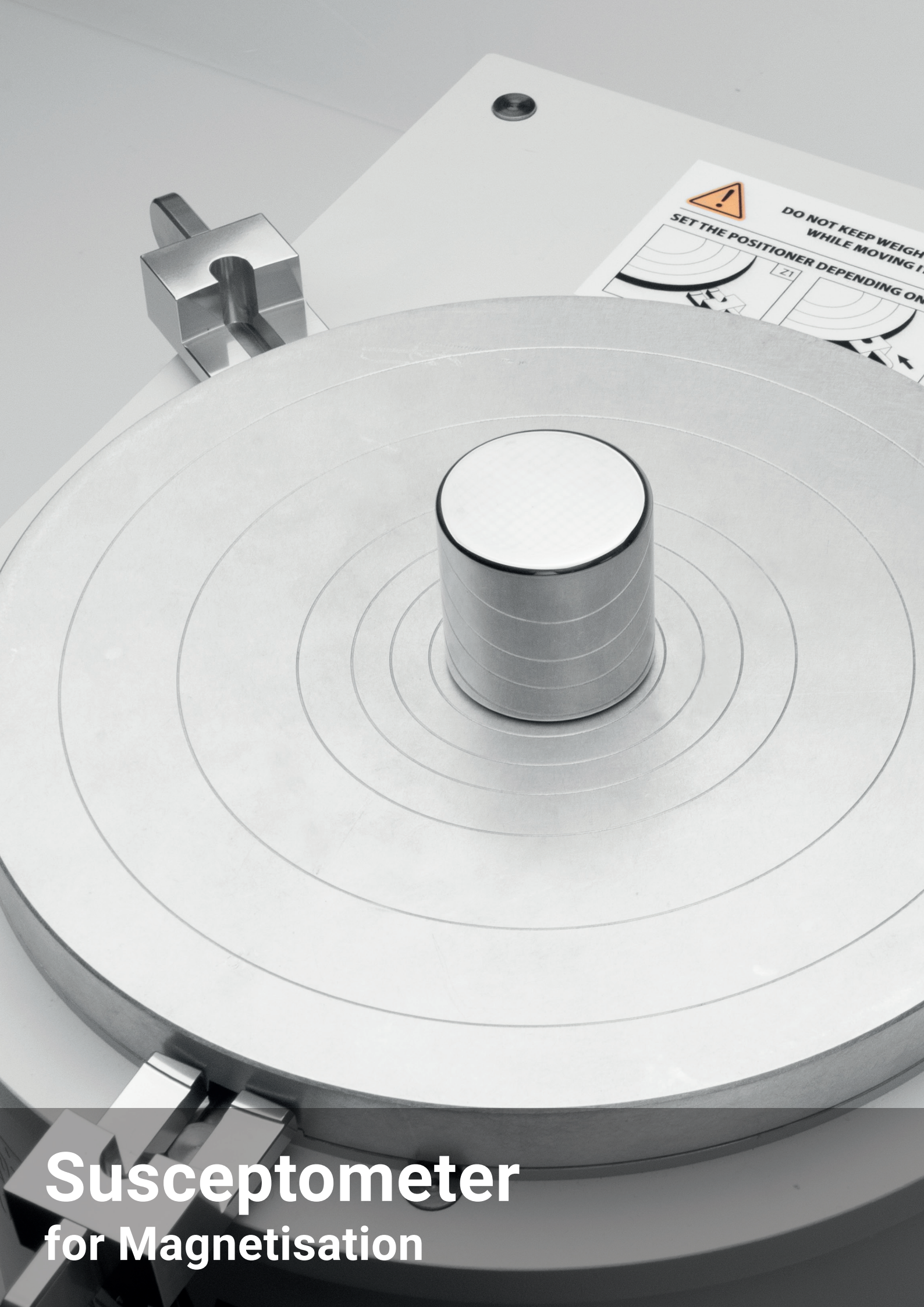
Centering holders of the openwork weighing pan allow precise placement of the weights, it is especially helpful when working with heavy and large mass standards.



Dedicated box for PM 5Y.KB mass comparator is a warranty for safe transport. With in-built interfaces you have a green light for immediate operation right after opening the box.

	HRP 1000.5Y.KB	HRP 2000.5Y.KB	5Y.25.PM.KB	5Y.50.PM.KB
Max capacity [Max]	1050 kg	2100 kg	25.5 kg	51 kg
Readability [d]	5 g	10 g	10 mg	100 mg
Standard repeatability [5% Max]*	4 g	8 g	5 mg	70 mg
Standard repeatability [Max]*	6 g	12 g	12 mg	100 mg

\*Repeatability is expressed as a standard deviation determined for 6 ABBA cycles. Standard deviation is experimentally determined under ambient conditions for calibration of E1 class mass standards specified in OIML R111 (Table C.1.) document.



DO NOT KEEP WEIGHT  
WHILE MOVING I

SET THE POSITIONER DEPENDING ON

21

# Susceptometer for Magnetisation

# SM 5Y.A

## Automatic Susceptometers

The instrument is designed to measure the magnetic susceptibility and permanent magnetization of mass standards of class E1 and lower with the readability [d] of 1 µg, in accordance with OIML R111. The SM 5Y.A allows automatic change of magnet polarity and pan level depending on the class of mass standard being tested. Any positive or negative information regarding the magnetic susceptibility and polarity of the tested mass standard is stored in the database.



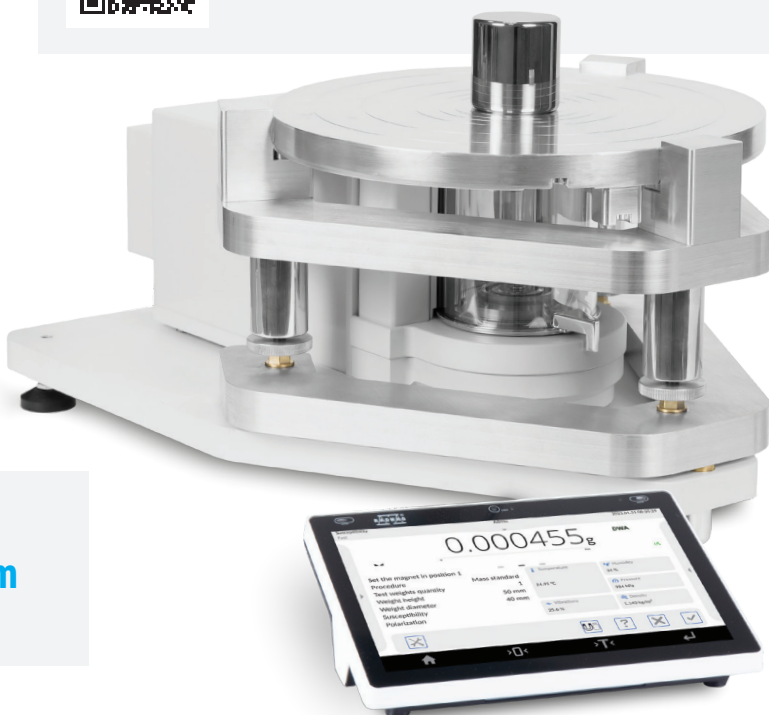
# SM 5Y

## Manual Susceptometers

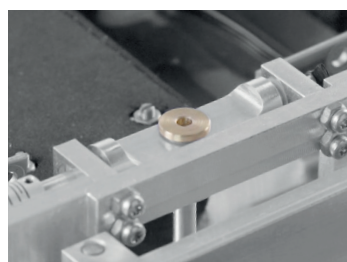
It is a comprehensive reference solution for determining magnetic characteristics even in class E1. The susceptometer's weighing pan has been designed in such a way that its operating range can be changed without additional components. The susceptometer, thanks to its removable modul, can also be used as a mass comparator and MYA 5Y Microbalance or UYA Ultra-microbalance. The modular design of the device expands its range of applications.



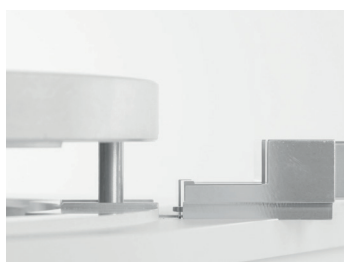
See **SM 5Y** on [radwag.com](https://www.radwag.com)



See **SM 5Y.A** on [radwag.com](https://www.radwag.com)



The programme guides the user through the process of checking the magnetic properties of the test sample and automatically changes the magnet's polarity at the appropriate time.



Three height levels determine the distance of the weighing platform from the centre of the magnet, which in turn defines the strength of the magnetic field.



A top-class magnet guarantees repeatability.



The modular design enables to use the susceptometer as a microbalance or a mass comparator.

	SM 5Y.A	SM-UYA 2.5Y	SM-UYA 6.5Y.KO	SM-MYA 5.5Y	SM-MYA 11.5Y.KO
Max capacity [Max]	50 kg	50 kg	50 kg	50 kg	50 kg
Readability [d]	1 µg	0.1 µg	0.1 µg	1 µg	1 µg
Standard repeatability [5% Max]*	0.6 µg	0.15 µg	0.2 µg	0.6 µg	0.9 µg
Standard repeatability [Max]*	1.6 µg	0.35 µg	0.4 µg	1.6 µg	2.5 µg

\*Repeatability is expressed as a standard deviation determined for 6 ABBA cycles. Standard deviation is experimentally determined under ambient conditions for calibration of E1 class mass standards specified in OIML R111 (Table C.1.) document.

		AVK 1000.5Y.CP	AVK 1000.5Y	AVK 1000.5Y.LLS	AGV-8 1000.5Y
Calibration range	E0**	100 g ÷ 1 kg	100 g ÷ 1 kg	100 g ÷ 1 kg	1 g ÷ 1 kg
	E1	100 g ÷ 1 kg	100 g ÷ 1 kg	100 g ÷ 1 kg	1 g ÷ 1 kg
	E2	100 g ÷ 1 kg	100 g ÷ 1 kg	100 g ÷ 1 kg	-
	F1	100 g ÷ 1 kg	100 g ÷ 1 kg	100 g ÷ 1 kg	-
	F2	100 g ÷ 1 kg	100 g ÷ 1 kg	100 g ÷ 1 kg	-
	M1	-	-	-	-
	M2	-	-	-	-
Max capacity [Max]		1002 g	1002 g	1002 g	1110 g
Readability [d]		0.1 µg	0.1 µg	0.1 µg	0.01 mg
Standard repeatability [5% Max]*		1 µg	0.8 µg ***	0.8 µg ***	0.04 mg
Standard repeatability [Max]*		1.5 µg	1 µg ***	1 µg ***	0.05 mg
Permissible repeatability		2 µg	1.5 µg	1.5 µg	0.08 mg
Electric compensation range		-1 g ÷ +2 g	-1 g ÷ +2 g	-1 g ÷ +2 g	-10 g ÷ +110 g
Eccentricity error		-	-	-	-
Supplementary weights		-	-	-	-
Stabilization time		60 s	60 s	60 s	30 s
Adjustment		internal / external	internal / external	internal / external	external
Weighing pan size		ø100 mm	ø100 mm	ø100 mm	ø60 mm
Power supply		100–240 V AC / 50–60 Hz	100–240 V AC / 50–60 Hz	100–240 V AC / 50–60 Hz	100–240 V AC / 50–60 Hz
Operating temperature		+15 – +30 °C	+15 – +30 °C	+15 – +30 °C	+15 – +30 °C
Operating temperature change rate		±0.1 °C / 12 h	±0.1 °C / 12 h	±0.1 °C / 12 h	±0.5 °C / 12 h (±0.3 °C / 4 h)
Relative humidity		45 % – 60 %	45 % – 60 %	45 % – 60 %	40 % – 60 %
Relative humidity change		±2 % / 4 h	±2 % / 4 h	±2 % / 4 h	±5 % / 12 h (3% / 4h)
Display		10" colour touchscreen	10" colour touchscreen	10" colour touchscreen	10" colour touchscreen
Communication interfaces		2×USB-A, USB-C, HDMI, Ethernet, Wi-Fi®, Hotspot	2×USB-A, USB-C, HDMI, Ethernet, Wi-Fi®, Hotspot	2×USB-A, USB-C, HDMI, Ethernet, Wi-Fi®, Hotspot	2×USB-A, USB-C, HDMI, Ethernet, Wi-Fi®, Hotspot

		RMC 10000.5Y	RMC 20000.5Y	NANO.AK-4.500.5Y	UMA-5.5Y
Calibration range	E0**	1 kg – 10 kg	1 kg – 20 kg	0.05 mg – 500 g	1 mg – 5 g
	E1	1 kg – 10 kg	1 kg – 20 kg	0.05 mg – 500 g	1 mg – 5 g
	E2	1 kg – 10 kg	1 kg – 20 kg	0.05 mg – 500 g	1 mg – 5 g
	F1	1 kg – 10 kg	1 kg – 20 kg	0.05 mg – 500 g	1 mg – 5 g
	F2	1 kg – 10 kg	1 kg – 20 kg	0.05 mg – 500 g	1 mg – 5 g
	M1	-	-	-	-
	M2	-	-	-	-
Max capacity [Max]		10110 g	20.2 kg	510 mg	6.1 g
Readability [d]		0.01 mg	0.1 mg	10 ng	0.0001 mg
Standard repeatability [5% Max]*		0.05 mg	0.15 mg	0.04 µg	0.2 µg
Standard repeatability [Max]*		0.05 mg	0.2 mg	0.06 µg	0.4 µg
Permissible repeatability		0.08 mg	0.3 mg	0.1 µg	0.6 µg
Electric compensation range		-10 g – +110 g	-50 g – +200 g	0 – +510 mg	0 – +6.1 g
Eccentricity error		-	-	-	-
Supplementary weights		internal (automatic)	internal (automatic)	-	–
Stabilization time		60 s	30 s	30 s	30 s
Adjustment		internal (automatic)	internal (automatic)	external	internal (automatic)
Weighing pan size		ø190 mm self centering	ø190 mm self centering	ø20 mm	ø20 mm
Power supply		100–240 V AC / 50–60 Hz	100–240 V AC / 50–60 Hz	100–240 V AC / 50–60 Hz	100–240 V AC / 50–60 Hz
Operating temperature		+15 – +30 °C	+15 – +30 °C	+15 – +30 °C	+15 – +30 °C
Operating temperature change rate		±0.5 °C / 12 h (±0.3 °C / 1 h)	±0.5 °C / 12 h (±0.3 °C / 4 h)	±0.5 °C / 12 h (±0.3 °C / 4 h)	±0.5 °C / 12 h (±0.3 °C / 4 h)
Relative humidity		40 % – 60 %	40 % – 60 %	40 % – 60 %	40 % – 60 %
Relative humidity change		±5% / 4 h	±5% / 12 h (2% / 4 h)	±5% / 12 h (3% / 4 h)	±5% / 12 h (3% / 4 h)
Display		10" colour touchscreen	10" colour touchscreen	10" colour touchscreen	10" colour touchscreen
Communication interfaces		2×USB-A, USB-C, HDMI, Ethernet, Wi-Fi®, Hotspot	2×USB-A, USB-C, HDMI, Ethernet, Wi-Fi®, Hotspot	2×USB-A, USB-C, HDMI, Ethernet, Wi-Fi®, Hotspot	2×USB-A, USB-C, HDMI, Ethernet, Wi-Fi®, Hotspot

\*Repeatability is expressed as a standard deviation determined for 6 ABBA cycles. Standard deviation is experimentally determined under ambient conditions for calibration of E1 class mass standards specified in OIML R111 (Table C.1.) document.

\*\*E0 standard determined from 1/5 limiting error according to OIML R111 for class E1.

\*\*\* Repeatability achieved in vacuum.

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

AGV-2 20.5Y	RMCM 5.5Y	RMCM 10.5Y	RMC 100.5Y	RMC 1000.5Y
1 kg ÷ 20 kg	0.05 mg ÷ 5 g	0.05 mg ÷ 10 g	1 g ÷ 100 g	10 g ÷ 1 kg
1 kg ÷ 20 kg	0.05 mg ÷ 5 g	0.05 mg ÷ 10 g	1 g ÷ 100 g	10 g ÷ 1 kg
-	0.05 mg ÷ 5 g	0.05 mg ÷ 10 g	1 g ÷ 100 g	10 g ÷ 1 kg
-	0.05 mg ÷ 5 g	0.05 mg ÷ 10 g	1 g ÷ 100 g	10 g ÷ 1 kg
-	0.05 mg ÷ 5 g	0.05 mg ÷ 10 g	1 g ÷ 100 g	10 g ÷ 1 kg
-	-	-	-	-
-	-	-	-	-
26.1 kg	6.1 g	10.1 g	110 g	1020 g
1 mg	0.1 µg	0.1 µg	0.1 µg	1 µg
2 mg	0.25 µg	0.25 µg	0.5 µg	3 µg
3 mg	0.4 µg	0.6 µg	0.8 µg	4 µg
6 mg	0.6 µg	0.8 µg	1 µg	6 µg
0 ÷ +26.1 kg	0 ÷ +6.1 g	0 ÷ +10.1 g	-1 g ÷ +10 g	-1 g ÷ +20 g
-	-	-	-	-
-	-	-	internal (automatic)	internal (automatic)
30 s	30 s	30 s	30 s	30 s
external	internal (automatic)	internal (automatic)	internal (automatic)	internal (automatic)
ø220 mm self centering	24×50 mm	24×50 mm	24×63 mm	45×100 mm
100–240 V AC / 50–60 Hz	100–240 V AC / 50–60 Hz	100–240 V AC / 50–60 Hz	100–240 V AC / 50–60 Hz	100–240 V AC / 50–60 Hz
+15 – +30 °C	+15 – +30 °C	+15 – +30 °C	+15 – +30 °C	+15 – +30 °C
±0.5 °C / 12 h (±0.3 °C / 4 h)	±0.5 °C / 12 h (±0.3 °C / 4 h)	±0.5 °C / 12 h (±0.3 °C / 4 h)	±0,5 °C / 12 h (±0,3 °C / 4 h)	±0,5 °C / 12 h (±0,3 °C / 4 h)
40 % – 60 %	40 % – 60 %	40 % – 60 %	40 % – 60 %	40 % – 60 %
±5 % / 12 h (3% / 4h)	±5 % / 12 h (2% / 4h)	±5 % / 12 h (2% / 4h)	±5% / 12 h (2% / 4 h)	±5% / 12 h (2% / 4 h)
10" colour touchscreen	10" colour touchscreen	10" colour touchscreen	10" colour touchscreen	10" colour touchscreen
2×USB-A, USB-C, HDMI, Ethernet, Wi-Fi®, Hotspot	2×USB-A, USB-C, HDMI, Ethernet, Wi-Fi®, Hotspot	2×USB-A, USB-C, HDMI, Ethernet, Wi-Fi®, Hotspot	2×USB-A, USB-C, HDMI, Ethernet, Wi-Fi®, Hotspot	2×USB-A, USB-C, HDMI, Ethernet, Wi-Fi®, Hotspot
UMA 10.5Y	UMA 100.5Y	UMA 200.5Y	UMA 1000.5Y	AK-4.100.5Y
1 mg – 10 g	1 g – 100 g	1 g – 200 g	10 g – 1000 g	10 g – 100 g
1 mg – 10 g	1 g – 100 g	1 g – 200 g	10 g – 1000 g	10 g – 100 g
1 mg – 10 g	1 g – 100 g	1 g – 200 g	10 g – 1000 g	10 g – 100 g
1 mg – 10 g	1 g – 100 g	1 g – 200 g	10 g – 1000 g	10 g – 100 g
1 mg – 10 g	1 g – 100 g	1 g – 200 g	10 g – 1000 g	10 g – 100 g
-	1 g – 100 g	-	-	-
-	1 g – 100 g	-	-	-
10.1 g	100 g	210 g	1060 g	110 g
0.0001 mg	0.001 mg	0.001 mg	0.005 mg	0.001 mg
0.2 µg	1.5 µg	2.5 µg	8 µg	1.5 µg
0.7 µg	2 µg	4 µg	12 µg	2 µg
1 µg	3.5 µg	6 µg	20 µg	3.5 µg
0 – +10.1 g	-1 g – +10 g	-1 g – +10 g	-10 g – +60 g	-1 g – +10 g
-	-	-	-	-
-	internal (automatic)	internal (automatic)	internal (automatic)	internal (automatic)
30 s	30 s	30 s	30 s	30 s
internal (automatic)	internal (automatic)	internal (automatic)	internal (automatic)	internal (automatic)
ø20 mm	ø21 mm	ø30 mm	ø48 mm	ø24 mm
100–240 V AC / 50–60 Hz	100–240 V AC / 50–60 Hz	100–240 V AC / 50–60 Hz	100–240 V AC / 50–60 Hz	100–240 V AC / 50–60 Hz
+15 – +30 °C	+15 – +30 °C	+15 – +30 °C	+15 – +30 °C	+15 – +30 °C
±0.5 °C / 12 h (±0.3 °C / 4 h)	±0.5 °C / 12 h (±0.3 °C / 4 h)	±0.5 °C / 12 h (±0.3 °C / 4 h)	±0.5 °C / 12 h (±0.3 °C / 4 h)	±0.5 °C / 12 h (±0.3 °C / 4 h)
40 % – 60 %	40 % – 60 %	40 % – 60 %	40 % – 60 %	40 % – 60 %
±5% / 12 h (3% / 4 h)	±5% / 12 h (3% / 4 h)	±5% / 12 h (3% / 4 h)	±5% / 12 h (3% / 4 h)	±5% / 12 h (3% / 4 h)
10" colour touchscreen	10" colour touchscreen	10" colour touchscreen	10" colour touchscreen	10" colour touchscreen
2×USB-A, USB-C, HDMI, Ethernet, Wi-Fi®, Hotspot	2×USB-A, USB-C, HDMI, Ethernet, Wi-Fi®, Hotspot	2×USB-A, USB-C, HDMI, Ethernet, Wi-Fi®, Hotspot	2×USB-A, USB-C, HDMI, Ethernet, Wi-Fi®, Hotspot	2×USB-A, USB-C, HDMI, Ethernet, Wi-Fi®, Hotspot

		AK-4.100.1	AK-4.1000.5Y	AK-4.1000.1.5Y	AK-4.2000.5Y
Calibration range	E0**	10 g – 100 g	-	100 g – 1 kg	200 g – 2 kg
	E1	10 g – 100 g	100 g – 1 kg	100 g – 1 kg	200 g – 2 kg
	E2	10 g – 100 g	100 g – 1 kg	100 g – 1 kg	200 g – 2 kg
	F1	10 g – 100 g	100 g – 1 kg	100 g – 1 kg	200 g – 2 kg
	F2	10 g – 100 g	100 g – 1 kg	100 g – 1 kg	200 g – 2 kg
	M1	-	-	-	-
	M2	-	-	-	-
Max capacity [Max]		110 g	1.02 kg	1.02 kg	2.05 kg
Readability [d]		0.1 µg	0.005 mg	0.001 mg	0.01 mg
Standard repeatability [5% Max]*		0.6 µg	8 µg	1.7 µg	12 µg
Standard repeatability [Max]*		0.8 µg	15 µg	2 µg	15 µg
Permissible repeatability		1.5 µg	25 µg	3.5 µg	25 µg
Electric compensation range		-1 g – +10 g	-10 g – +20 g	-1 g – +20 g	-10 g – +50 g
Eccentricity error		-	-	-	-
Supplementary weights		internal (automatic)	internal (automatic)	internal (automatic)	internal (automatic)
Stabilization time		30 s	30 s	30 s	30 s
Adjustment		internal (automatic)	internal (automatic)	internal (automatic)	internal (automatic)
Weighing pan size		ø24 mm	ø50 mm	ø50 mm	ø75 mm
Power supply		100–240 V AC / 50–60 Hz	100–240 V AC / 50–60 Hz	100–240 V AC / 50–60 Hz	100–240 V AC / 50–60 Hz
Operating temperature		+15 – +30 °C	+15 – +30 °C	+15 – +30 °C	+15 – +30 °C
Operating temperature change rate		±0.5 °C / 12 h (±0.3 °C / 4 h)	±0.5 °C / 12 h (±0.3 °C / 4 h)	±0.5 °C / 12 h (±0.3 °C / 4 h)	±0.5 °C / 12 h (±0.3 °C / 4 h)
Relative humidity		40 % – 60 %	40 % – 60 %	40 % – 60 %	40 % – 60 %
Relative humidity change		±5% / 12 h (3% / 4 h)	±5% / 12 h (3% / 4 h)	±5% / 12 h (3% / 4 h)	±5% / 12 h (3% / 4 h)
Display		10" colour touchscreen	10" colour touchscreen	10" colour touchscreen	10" colour touchscreen
Communication interfaces		2×USB-A, USB-C, HDMI, Ethernet, Wi-Fi®, Hotspot	2×USB-A, USB-C, HDMI, Ethernet, Wi-Fi®, Hotspot	2×USB-A, USB-C, HDMI, Ethernet, Wi-Fi®, Hotspot	2×USB-A, USB-C, HDMI, Ethernet, Wi-Fi®, Hotspot

		UYA 6.5Y.KO	XA 6.5Y.KO	XA 21.5Y.KO	XA 52.5Y.KO	XA 200.5Y.KO
Calibration range	E1	1 mg – 5 g	100 mg – 5 g	500 mg – 20 g	50 g	200 g
	E2	1 mg – 5 g	1 mg – 5 g	1 mg – 20 g	100 mg – 50 g	50 g – 200 g
	F1	1 mg – 5 g	1 mg – 5 g	1 mg – 20 g	1 mg – 50 g	50 mg – 200 g
	F2	1 mg – 5 g	1 mg – 5 g	1 mg – 20 g	1 mg – 50 g	1 mg – 200 g
	M1	1 mg – 5 g	1 mg – 5 g	1 mg – 20 g	1 mg – 50 g	1 mg – 200 g
	M2	1 mg – 5 g	1 mg – 5 g	1 mg – 20 g	1 mg – 50 g	1 mg – 200 g
Max capacity [Max]		6.1 g	6 g	21 g	52 g	210 g
Readability [d]		0.1 µg	0.001 mg	0.001 mg	0.005 mg	0.01 mg
Standard repeatability [5% Max]*		0.2 µg	1.2 µg	1.2 µg	2.5 µg	0.005 mg
Standard repeatability [Max]*		0.4 µg	2 µg	3 µg	6 µg	0.025 mg
Permissible repeatability		0.6 µg	3 µg	0.6 µg	5 µg	0.05 mg
Electric compensation range		0 g – +6.1 g	0 – +6 g	0 – +21 g	0 – +52 g	0 – +210 g
Eccentricity error		1d / 1 mm	1d / 1 mm	1d / 1 mm	1d / 1 mm	1d / 1 mm
Supplementary weights		-	-	-	-	-
Stabilization time		30 s	5 s	5 s	5 s	5 s
Adjustment		internal (automatic)	internal (automatic)	internal (automatic)	internal (automatic)	internal (automatic)
Weighing pan size		ø16 mm	ø16 mm	ø24 mm	ø24 mm	ø90 mm
Power supply		100–240 V AC / 50–60 Hz	100–240 V AC / 50–60 Hz	100–240 V AC / 50–60 Hz	100–240 V AC / 50–60 Hz	100–240 V AC / 50–60 Hz
Operating temperature		+15 – +30 °C	+15 – +35 °C	+15 – +35 °C	+15 – +35 °C	+15 – +35 °C
Operating temperature change rate		±0.5 °C / 12 h (±0.3 °C / 4 h)	±1 °C / 12 h	±1 °C / 12 h	±1 °C / 12 h	±1 °C / 12 h
Relative humidity		40 % – 60 %	40% – 70%	40% – 70%	40% – 70%	40% – 70%
Relative humidity change		±2% / 4 h	±5% / 4 h	±5% / 4 h	±5% / 4 h	±5% / 4 h
Display		10" colour touchscreen	10" colour touchscreen	10" colour touchscreen	10" colour touchscreen	10" colour touchscreen
Communication interfaces		2×USB-A, USB-C, HDMI, Ethernet, Wi-Fi®, Hotspot	2×USB-A, USB-C, HDMI, Ethernet, Wi-Fi®, Hotspot	2×USB-A, USB-C, HDMI, Ethernet, Wi-Fi®, Hotspot	2×USB-A, USB-C, HDMI, Ethernet, Wi-Fi®, Hotspot	2×USB-A, USB-C, HDMI, Ethernet, Wi-Fi®, Hotspot

\*Repeatability is expressed as a standard deviation determined for 6 ABBA cycles. Standard deviation is experimentally determined under ambient conditions for calibration of E1 class mass standards specified in OIML R111 (Table C.1.) document.

\*\*E0 standard determined from 1/5 limiting error according to OIML R111 for class E1.

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AK-4.5000.5Y	AK-4.10000.5Y	AKM-2.20.5Y	AKM-2.50.1.5Y	AKM-2.50.5Y
1 kg – 5 kg	500 g – 10 kg	5 kg – 20 kg	5 kg – 50 kg	-
1 kg – 5 kg	500 g – 10 kg	5 kg – 20 kg	5 kg – 50 kg	20 kg – 50 kg
1 kg – 5 kg	500 g – 10 kg	1 kg – 20 kg	5 kg – 50 kg	5 kg – 50 kg
1 kg – 5 kg	500 g – 10 kg	1 kg – 20 kg	5 kg – 50 kg	5 kg – 50 kg
1 kg – 5 kg	500 g – 10 kg	1 kg – 20 kg	5 kg – 50 kg	5 kg – 50 kg
-	-	-	-	-
-	-	-	-	-
5.05 kg	10.1 kg	20.5 kg	50.5 kg	51 kg
0.01 mg	0.01 mg	0.1 mg	0.1 mg	1 mg
15 µg	15 µg	0.15 mg	0.4 mg	-
20 µg	20 µg	0.2 mg	0.6 mg	2 mg
35 µg	40 µg	0.3 mg	1 mg	3 mg
-10 g – +50 g	-10 g – +100 g	-500 g – +500 g	-500 g – +500 g	0 – +51 kg
-	-	-	-	-
internal (automatic)	internal (automatic)	internal (automatic)	internal (automatic)	-
30 s	30 s	30 s	30 s	30 s
internal (automatic)	internal (automatic)	internal (automatic)	internal (automatic)	external
ø75 mm	ø100 mm	ø190 mm - self centering	ø100 mm - self centering	ø100 mm
100–240 V AC / 50–60 Hz	100–240 V AC / 50–60 Hz	100–240 V AC / 50–60 Hz	100–240 V AC / 50–60 Hz	100–240 V AC / 50–60 Hz
+15 – +30 °C	+15 – +30 °C	+15 – +30 °C	+15 – +30 °C	+15 – +30 °C
±0.5 °C / 12 h (±0.3 °C / 4 h)	±0.5 °C / 12 h (±0.3 °C / 4 h)	±0.5 °C / 12 h (±0.3 °C / 4 h)	±0.5 °C / 12 h (±0.3 °C / 4 h)	±0.5 °C / 12 h (±0.3 °C / 4 h)
40 % – 60 %	40 % – 60 %	40 % – 60 %	40 % – 60 %	40 % – 60 %
±5% / 12 h (3% / 4 h)	±5% / 12 h (3% / 4 h)	±5% / 12 h (3% / 4 h)	±5% / 12 h (3% / 4 h)	±5% / 12 h (3% / 4 h)
10" colour touchscreen	10" colour touchscreen	10" colour touchscreen	10" colour touchscreen	10" colour touchscreen
2×USB-A, USB-C, HDMI, Ethernet, Wi-Fi®, Hotspot	2×USB-A, USB-C, HDMI, Ethernet, Wi-Fi®, Hotspot	2×USB-A, USB-C, HDMI, Ethernet, Wi-Fi®, Hotspot	2×USB-A, USB-C, HDMI, Ethernet, Wi-Fi®, Hotspot	2×USB-A, USB-C, HDMI, Ethernet, Wi-Fi®, Hotspot

WAY 100.5Y.KO	WAY 200.5Y.KO	WAY 500.5Y.KO	WAY 1.5Y.KO	WAY 2.5Y.KO	WAY 5.5Y.KO
5 g – 100 g	5 g – 200 g	200 g – 500 g	500 g – 1 kg	1 kg – 2kg	2 kg – 5kg
100 mg – 100 g	100 mg – 200 g	10 g – 500 g	100 g – 1 kg	500 g – 2 kg	500 g – 5 kg
1 mg –100 g	1 mg –200 g	500 mg – 500 g	10 g – 1 kg	100 g – 2 kg	200 g – 5 kg
1 mg –100 g	1 mg –200 g	1 mg – 500 g	1 g – 1 kg	10 g – 2 kg	20 g – 5 kg
1 mg –100 g	1 mg –200 g	1 mg – 500 g	1 g – 1 kg	1 g – 2 kg	1 g – 5 kg
1 mg –100 g	1 mg –200 g	1 mg – 500 g	1 g – 1 kg	1 g – 2 kg	1 g – 5 kg
110 g	210 g	520 g	1.02 kg	2.3 kg	5.05 kg
0.001 mg	0.001 mg	0.01 mg	0.01 mg	0.1 mg	0.1 mg
2.5 µg	3 µg	0.01 mg	0.025 mg	0.08 mg	0.15 mg
3 µg	3 µg	0.02 mg	0.03 mg	0.1 mg	0.2 mg
5 µg	6 µg	0.035 mg	0.05 mg	0.2 mg	0.35 mg
-1 g – +10 g	-1 g – +10 g	-1 g – +20 g	-10 g – +20 g	-50 g – +300 g	-10 g – +50 g
1d / 1 mm	1d / 1 mm	1d / 1 mm	1d / 1 mm	1d / 1 mm	1d / 1 mm
internal (automatic)	internal (automatic)	internal (automatic)	internal (automatic)	internal (automatic)	internal (automatic)
30 s	30 s	30 s	30 s	20 s	20 s
internal (automatic)	internal (automatic)	internal (automatic)	internal (automatic)	internal (automatic)	internal (automatic)
ø30 mm	ø40 mm	ø50 mm	ø60 mm	ø70 mm	ø90 mm
100–240 V AC / 50–60 Hz	100–240 V AC / 50–60 Hz	100–240 V AC / 50–60 Hz	100–240 V AC / 50–60 Hz	100–240 V AC / 50–60 Hz	100–240 V AC / 50–60 Hz
+15 – +30 °C	+15 – +30 °C	+15 – +30 °C	+15 – +30 °C	+15 – +30 °C	+15 – +30 °C
±0.5 °C / 12 h (±0.3 °C / 4 h)	±0.5 °C / 12 h (±0.3 °C / 4 h)	±0.5 °C / 12 h (±0.3 °C / 4 h)	±0.5 °C / 12 h (±0.3 °C / 4 h)	±0.5 °C / 12 h (±0.3 °C / 4 h)	±0.5 °C / 12 h (±0.3 °C / 4 h)
40 % – 60 %	40 % – 60 %	40 % – 60 %	40 % – 60 %	40 % – 60 %	40 % – 60 %
±3% / 4 h	±3% / 4 h	±3% / 4 h	±3% / 4 h	±3% / 4 h	±3% / 4 h
10" colour touchscreen	10" colour touchscreen	10" colour touchscreen	10" colour touchscreen	10" colour touchscreen	10" colour touchscreen
2×USB-A, USB-C, HDMI, Ethernet, Wi-Fi®, Hotspot	2×USB-A, USB-C, HDMI, Ethernet, Wi-Fi®, Hotspot	2×USB-A, USB-C, HDMI, Ethernet, Wi-Fi®, Hotspot	2×USB-A, USB-C, HDMI, Ethernet, Wi-Fi®, Hotspot	2×USB-A, USB-C, HDMI, Ethernet, Wi-Fi®, Hotspot	2×USB-A, USB-C, HDMI, Ethernet, Wi-Fi®, Hotspot

		WAY 1200.5Y.KO	WAY 5100.5Y.KO	APP 10.5Y.KO	APP 30.5Y.KO	APP 64.5Y.KO
Calibration range	E1	-	-	5 kg – 10 kg	20 kg	–
	E2	500 g – 1 kg	5 kg	1 kg – 10 kg	10 kg – 20 kg	50 kg
	F1	100 g – 1 kg	1 kg – 5 kg	500 g – 10 kg	2 kg – 20 kg	20 kg – 50 kg
	F2	5 g – 1 kg	500 g – 5 kg	100 g – 10 kg	1 kg – 20 kg	5 kg – 50 kg
	M1	1 g – 1 kg	200 g – 5 kg	100 g – 10 kg	500 g – 20 kg	1 kg – 50 kg
	M2	1 g – 1 kg	10 g – 5 kg	100 g – 10 kg	200 g – 20 kg	1 kg – 50 kg
Max capacity [Max]		1.2 kg	5.1 kg	10.2 kg	30.5 kg	64 kg
Readability [d]		0.1 mg	1 mg	0.1 mg	1 mg	10 mg
Standard repeatability [5% Max]*		0.08 mg	0.8 mg	0.35 mg	2 mg	13 mg
Standard repeatability [Max]*		0.1 mg	1 mg	0.4 mg	4 mg	18 mg
Permissible repeatability		0.2 mg	2 mg	0.7 mg	5 mg	30 mg
Electric compensation range		0 – +1200 g	0 – +5100 g	-100 g – +200 g	0 – +30.5 kg	0 – +64 kg
Eccentricity error		0.5d / 1 mm	1d / 5 mm	2d / 1 mm	2d / 1 mm	2d / 1 mm
Supplementary weights		-	-	internal (automatic)	-	-
Stabilization time		10 s	10 s	30 s	20 s	20 s
Adjustment		external	external	internal (automatic)	external	external
Power supply		100–240 V AC / 50–60 Hz	100–240 V AC / 50–60 Hz	100–240 V AC / 50–60 Hz	100–240 V AC / 50–60 Hz	100–240 V AC / 50–60 Hz
Weighing pan size		ø80 mm	ø100 mm	ø190 (ø300) mm	ø220 (ø300) mm	ø300 (ø400) mm
Operating temperature		+15 – +30 °C	+15 – +30 °C	+15 – +30 °C	+15 – +30 °C	+15 – +30 °C
Operating temperature change rate		±0.5 °C / 12 h (±0.3 °C / 4 h)	±0.5 °C / 12 h (±0.3 °C / 4 h)	±0.5 °C / 12 h (±0.3 °C / 1 h)	±0.5 °C / 12 h (±0.3 °C / 1 h)	±0.5 °C / 12 h (±0.3 °C / 1 h)
Relative humidity		40 % – 60 %	40 % – 60 %	40 % – 60 %	40 % – 60 %	40 % – 60 %
Relative humidity change		±3% / 4 h	±3% / 4 h	±5% / 4 h	±5% / 4 h	±5% / 4 h
Display		10" colour touchscreen	10" colour touchscreen	10" colour touchscreen	10" colour touchscreen	10" colour touchscreen
Communication interfaces		2×USB-A, USB-C, HDMI, Ethernet, Wi-Fi®, Hotspot	2×USB-A, USB-C, HDMI, Ethernet, Wi-Fi®, Hotspot	2×USB-A, USB-C, HDMI, Ethernet, Wi-Fi®, Hotspot	2×USB-A, USB-C, HDMI, Ethernet, Wi-Fi®, Hotspot	2×USB-A, USB-C, HDMI, Ethernet, Wi-Fi®, Hotspot

		HRP 2000.5Y.KO	HRP 1000.5Y.KB	HRP 2000.5Y.KB	5Y.25.PM.KB	5Y.50.PM.KB
Calibration range	E1	-	-	-	-	-
	E2	-	-	-	-	-
	F1	-	-	-	10 kg – 20 kg	-
	F2	2000 kg	-	-	5 kg – 20 kg	50 kg
	M1	500 kg – 2000 kg	1000 kg	500 kg – 2000 kg	1 kg – 25 kg	10 kg – 50 kg
	M2	200 kg – 2000 kg	200 kg – 1000 kg	500 kg – 2000 kg	500 g – 25 kg	5 kg – 50 kg
Max capacity [Max]		2100 kg	1050 kg	2100 kg	25.5 kg	51 kg
Readability [d]		2 g	5 g	10 g	10 mg	100 mg
Standard repeatability [5% Max]*		2.5 g	4 g	8 g	5 mg	70 mg
Standard repeatability [Max]*		5 g	6 g	12 g	12 mg	100 mg
Permissible repeatability		10 g	8 g	15 g	15 mg	150 mg
Electric compensation range		0 – +2100 kg	0 – +1050 kg	0 – +2100 kg	0 – +25.5 kg	0 – +51 kg
Eccentricity error		2d / 1 mm	1 d / 5 mm	0.5 d / 1 mm	1 d / 2 mm	1 d / 2 mm
Supplementary weights		-	-	-	-	-
Stabilization time		10 s	10 s	10 s	5 s	3 s
Adjustment		internal (automatic)	internal (automatic)	internal (automatic)	internal (automatic)	internal (automatic)
Power supply		100–240 V AC / 50–60 Hz	100–240 V AC / 50–60 Hz	100–240 V AC / 50–60 Hz	100–240 V AC / 50–60 Hz	100–240 V AC / 50–60 Hz
Weighing pan size		1250×1000 mm	1000×800 mm	1250×1000 mm	302×252 mm	302×252 mm
Operating temperature		+15 – +30 °C	+15 – +30 °C	+15 – +30 °C	+10 – +40 °C	+10 – +40 °C
Operating temperature change rate		±1°C / 12 h	±2 °C / 12 h	±2 °C / 12 h	±2 °C / 12 h	±2 °C / 12 h
Relative humidity		40 % – 60 %	40% – 60%	40% – 60%	30% – 70%	30% – 70%
Relative humidity change		±5% / 4 h	±10% / 4 h	±10% / 4 h	±10% / 4 h	±10% / 4 h
Display		10" colour touchscreen	10" colour touchscreen	10" colour touchscreen	10" colour touchscreen	10" colour touchscreen
Communication interfaces		2×USB-A, USB-C, HDMI, Ethernet, Wi-Fi®, Hotspot	2×USB-A, USB-C, HDMI, Ethernet, Wi-Fi®, Hotspot	2×USB-A, USB-C, HDMI, Ethernet, Wi-Fi®, Hotspot	2×USB-A, USB-C, HDMI, Ethernet, Wi-Fi®, Hotspot	2×USB-A, USB-C, HDMI, Ethernet, Wi-Fi®, Hotspot

\*Repeatability is expressed as a standard deviation determined for 6 ABBA cycles. Standard deviation is experimentally determined under ambient conditions for calibration of E1 class mass standards specified in OIML R111 (Table C.1.) document.  
Wi-Fi® is a registered trademark of Wi-Fi® Alliance.

HRP 150.1.5Y.KO	HRP 200.5Y.KO	HRP 500.1.5Y.KO	HRP 500.5Y.KO	HRP 1000.1.5Y.KO	HRP 1000.5Y.KO
-	-	-	-	-	-
-	-	-	-	-	-
100 kg	-	500 kg	-	1000 kg	-
50 kg – 100 kg	200 kg	100 kg – 500 kg	500 kg	500 kg – 1000 kg	500 kg – 1000 kg
20 kg – 100 kg	50 kg – 200 kg	20 kg – 500 kg	100 kg – 500 kg	100 kg – 1000 kg	200 kg – 1000 kg
10 kg – 100 kg	10 kg – 200 kg	10 kg – 500 kg	50 kg – 500 kg	50 kg – 1000 kg	100 kg – 1000 kg
151 kg	210 kg	510 kg	510 kg	1050 kg	1050 kg
0.05 g	0.2 g	0.1 g	0.5 g	0.5 g	1 g
0.1 g	0.4 g	0.2 g	0.6 g	0.9 g	1.5 g
0.15 g	0.6 g	0.4 g	1.5 g	1.2 g	2.5 g
0.25 g	1 g	0.6 g	3 g	2 g	5 g
0 – +151 kg	0 – +210 kg	0 – +510 kg	0 – +510 kg	0 – +1050 kg	0 – +1050 kg
2d / 1 mm	1d / 1 mm	2d / 1 mm	1d / 1 mm	2d / 1 mm	1d / 1 mm
-	-	-	-	-	-
10 s	10 s	10 s	10 s	10 s	10 s
internal (automatic)	internal (automatic)	internal (automatic)	internal (automatic)	internal (automatic)	internal (automatic)
100–240 V AC / 50–60 Hz	100–240 V AC / 50–60 Hz	100–240 V AC / 50–60 Hz	100–240 V AC / 50–60 Hz	100–240 V AC / 50–60 Hz	100–240 V AC / 50–60 Hz
800×600 mm, 600×600 mm (self centering)	800×600 mm, 600×600 mm (self centering)	1000×800 mm, 600×600 mm (self centering)	800×600 mm, 600×600 mm (self centering)	1000×800 mm, 600×600 mm (self centering)	1000×800 mm, 600×600 mm (self centering)
+15 – +30 °C	+15 – +30 °C	+15 – +30 °C	+15 – +30 °C	+15 – +30 °C	+15 – +30 °C
±1°C / 12 h	±1°C / 12 h	±1°C / 12 h	±1°C / 12 h	±1°C / 12 h	±1°C / 12 h
40 % – 60 %	40 % – 60 %	40 % – 60 %	40 % – 60 %	40 % – 60 %	40 % – 60 %
±5% / 4 h	±5% / 4 h	±5% / 4 h	±5% / 4 h	±5% / 4 h	±5% / 4 h
10" colour touchscreen	10" colour touchscreen	10" colour touchscreen	10" colour touchscreen	10" colour touchscreen	10" colour touchscreen
2×USB-A, USB-C, HDMI, Ethernet, Wi-Fi®, Hotspot	2×USB-A, USB-C, HDMI, Ethernet, Wi-Fi®, Hotspot	2×USB-A, USB-C, HDMI, Ethernet, Wi-Fi®, Hotspot	2×USB-A, USB-C, HDMI, Ethernet, Wi-Fi®, Hotspot	2×USB-A, USB-C, HDMI, Ethernet, Wi-Fi®, Hotspot	2×USB-A, USB-C, HDMI, Ethernet, Wi-Fi®, Hotspot

SM 5Y.A	SM-UYA 3.5Y	SM-UYA 6.5Y.KO	SM-MYA 5.5Y	SM-MYA 11.5Y
2 g – 50 kg	2 g – 50 kg	2 g – 50 kg	2 g – 50 kg	2 g – 50 kg
2 g – 50 kg	2 g – 50 kg	2 g – 50 kg	2 g – 50 kg	2 g – 50 kg
2 g – 50 kg	2 g – 50 kg	2 g – 50 kg	2 g – 50 kg	2 g – 50 kg
2 g – 50 kg	2 g – 50 kg	2 g – 50 kg	2 g – 50 kg	2 g – 50 kg
-	-	-	-	-
-	-	-	-	-
50 kg	50 kg	50 kg	50 kg	50 kg
1 µg	0.1 µg	0.1 µg	1 µg	1 µg
0.6 µg	0.15 µg	0.2 µg	0.6 µg	0.9 µg
1.6 µg	0.35 µg	0.45 µg	1.6 µg	2.5 µg
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
10 s	10 s	10 s	10 s	10 s
internal (automatic)	internal (automatic)	internal (automatic)	internal (automatic)	internal (automatic)
100–240 V AC / 50–60 Hz	100–240 V AC / 50–60 Hz	100–240 V AC / 50–60 Hz	100–240 V AC / 50–60 Hz	100–240 V AC / 50–60 Hz
ø300 mm	ø300 mm	ø300 mm	ø300 mm	ø300 mm
+15 – +30 °C	+15 – +30 °C	+15 – +30 °C	+15 – +30 °C	+15 – +30 °C
±0,5 °C / 12 h (±0,3 °C / 4 h)	±0,5 °C / 12 h (±0,3 °C / 4 h)	±0,5 °C / 12 h (±0,3 °C / 4 h)	±0,5 °C / 12 h (±0,3 °C / 4 h)	±0,5 °C / 12 h (±0,3 °C / 4 h)
40% – 60%	40% – 60%	40% – 60%	40% – 60%	40% – 60%
±2% / 4 h	±2% / 4 h	±2% / 4 h	±2% / 4 h	±2% / 4 h
10" colour touchscreen	10" colour touchscreen	10" colour touchscreen	10" colour touchscreen	10" colour touchscreen
2×USB-A, USB-C, HDMI, Ethernet, Wi-Fi®, Hotspot	2×USB-A, USB-C, HDMI, Ethernet, Wi-Fi®, Hotspot	2×USB-A, USB-C, HDMI, Ethernet, Wi-Fi®, Hotspot	2×USB-A, USB-C, HDMI, Ethernet, Wi-Fi®, Hotspot	2×USB-A, USB-C, HDMI, Ethernet, Wi-Fi®, Hotspot



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