

Testing 1 g - 20 kg mass standards of class E1
Maximum accuracy and stability of the measurement
Compliance with OIML R111



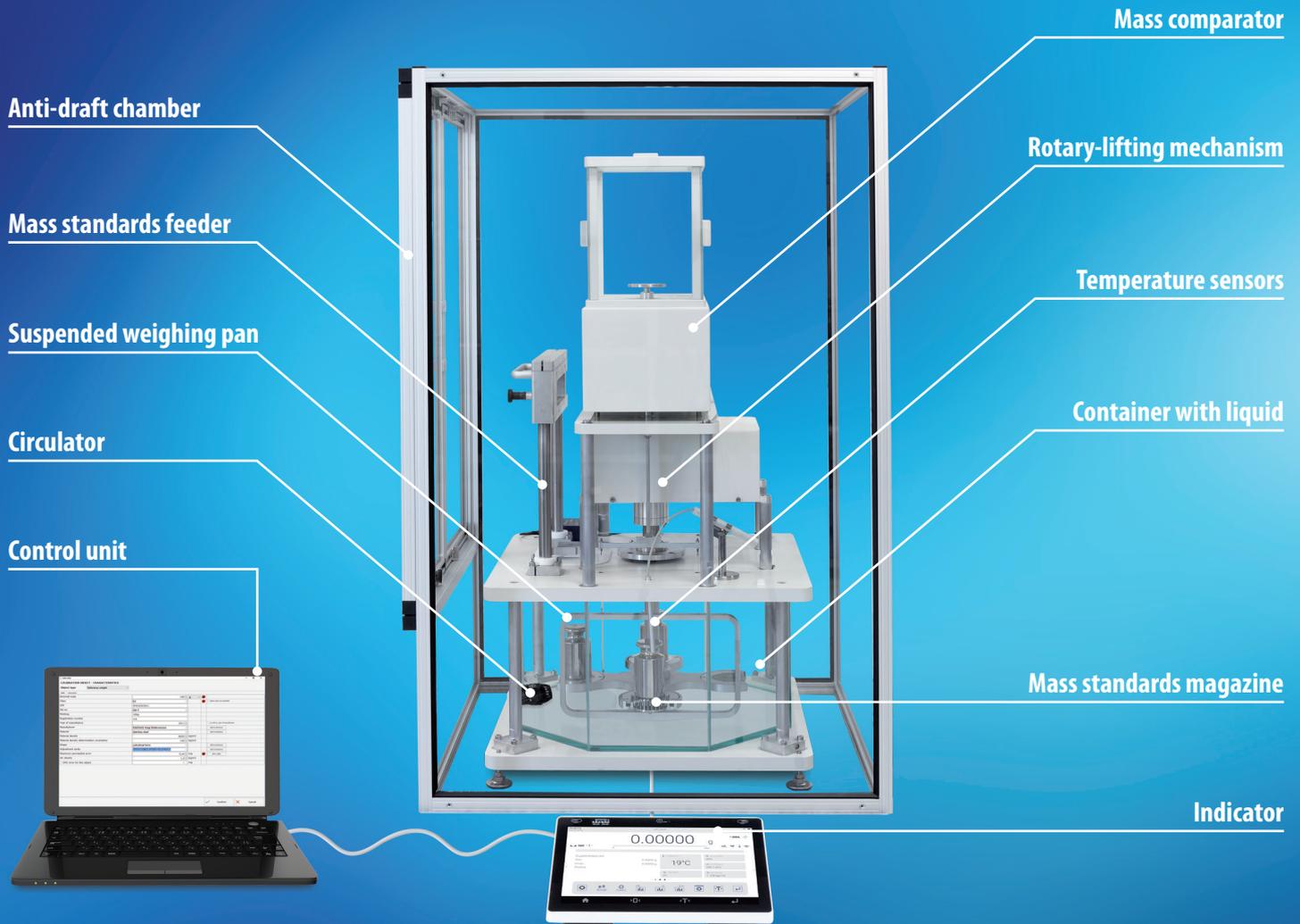
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AGV 5Y Automatic Comparator

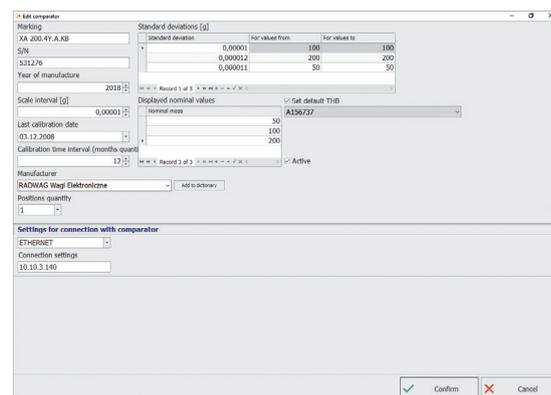
FOR DETERMINATION OF MASS STANDARD'S DENSITY AND VOLUME

AGV 5Y | Determination of mass standard's density and volume with the greatest accuracy

The AGV 5Y automatic comparator determines density and volume of mass standards of class E1 and lower in accordance with OIML R111. It is characterized by measurement stability ranging between 1 g and 1 kg and readability of $d = 0.01$ mg. The AGV 5Y automatic comparator enables density determination to be carried out simultaneously for 1 or 7 mass standards using one reference weight.



Top-class comparator of 0.01 mg reading unit and 110 g electric compensation range ensures very precise measurements and eliminates uncertainty.



Dedicated software for determination of mass standard's density and volume.

Testing 1 g – 20 kg mass standards of class E1 and lower

Weighing in Air and in Liquid

RADWAG-designed AGV 5Y automatic comparator uses the most accurate method of determining density of mass standard. First, the mass standard is weighed in air and then in liquid of known density. Specially designed construction of the weighing pan minimizes the influence of surface tension of the liquid.

8-Position Magazine (Mass Standard + 7 Test Weights)

The AGV-81000.5Y comparator for determination of density and volume enables to determine the density of three test weights while using only one reference weight. The density value is obtained with the highest accuracy simultaneously for all the test weights.

Temperature Measurement Performed in 3 Points

The comparator is equipped with a top-class thermometer of 0.001°C resolution and three temperature sensors. Measurement carried out in three points of the container (at the bottom, in the middle and near the surface) allows to assess the difference in temperature. With this, it is possible to mix and even the liquid temperature in the container. Otherwise, the density measurement results may be incorrect.

Dedicated Software for Density Determination

The comparator software enables to determine mass standards density and calculate uncertainty using A method according to OIML R111. It also allows to determine (verify) liquid density.

Mass Standards Feeder

The AGV 5Y automatic comparator is equipped with a special feeder designed to load and unload the magazine with mass standards and silicone spheres. With this, the operation is significantly improved.

Ergonomics and Comfort of Operation

10" colour touch screen ensures comfort of comparator operation. Easy access to numerous applications and functions is ensured by home screen customization. The indicator is equipped with two programmable proximity sensors.



Special design of the insert ensures very high measuring range of the comparator (1g-1kg or 1kg-20kg). It is also intended for comparison of silicone spheres.



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



The device is equipped with an additional circulator eliminating air bubbles and facilitating mixing of the liquid in the container in order to even its temperature.



A weighing pan suspended on wires of 0.3 mm diameter significantly minimizes the eccentricity and eliminates the influence of liquid surface tension.



High quality and precise ASL F200 thermometer



Smooth regulation of circulator revolution



AGV 2 20.5Y

AGV 8 1000.5Y

OIML calibration range	E1	1 kg ÷ 20 kg	1 g ÷ 1 kg
OIML calibration range	E2	1 kg ÷ 20 kg	1 g ÷ 1 kg
OIML calibration range	F1	1 kg ÷ 20 kg	1 g ÷ 1 kg
OIML calibration range	F2	1 kg ÷ 20 kg	1 g ÷ 1 kg
OIML calibration range	M1	–	–
OIML calibration range	M2	–	–
Maximum capacity [Max]		26,1 kg	1110 g
Readability [d]		1 mg	0.01 mg
Repeatability for nominal load *		3 mg	0.05 mg
Stabilization time		30 s	30 s
Adjustment		External	External
Electric compensation range		100 g ÷ + 26,1 kg	–10 g ÷ + 110 g
Comparison object dimensions		25-145 mm	5-94 mm
Magazine positions		2	8
Display		10" colour resistive touch screen	10" colour resistive touch screen
Communication interfaces		USB-A ×2, USB-C, HDMI, Ethernet, Wi-Fi®, Hotspot	USB-A ×2, USB-C, HDMI, Ethernet, Wi-Fi®, Hotspot
Weighing pan dimension		∅ 220 mm	∅ 60 mm
Operating temperature		+15 ÷ +30 °C	+15 ÷ +30 °C
Operating temperature change rate		± 0.5°C/12h (± 0.3°C/h)	± 0.5°C/12h (± 0.3°C/h)
Relative humidity change rate		5%/12% (2%/4h)	5%/12% (2%/4h)
Relative humidity **		45 ÷ 60%	45 ÷ 60%
Transport and storage temperature		–20 ÷ +50 °C	–20 ÷ +50 °C
Indicator dimensions (L × W × H)		249 × 170 × 72 mm	249 × 170 × 72 mm
Overall dimensions (L × W × H)		690 × 710 × 1060 mm	690 × 710 × 1060 mm

*Repeatability is expressed as a standard deviation determined for 6 ABBA cycles | **Non-condensing conditions | Wi-Fi® is a registered trademark of Wi-Fi Alliance.