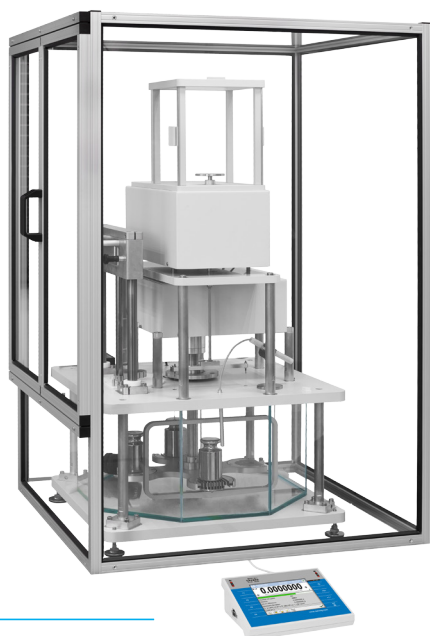


# AGV-4/1000 Automatic Comparator

For determination of mass standard's density and volume



AGV-4/1000





Suspended weighing pan





Additional circulator eliminating air bubbles


## Functions


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Mass comparator
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Ambient conditions measurement
  - 

Proximity sensors
  - 

Replaceable units
  - 

Multilingual menu
- 

Density determination

## Features

### Compliance with OIML R111

The AGV-4/1000 automatic comparator determines density and volume of mass standards of class E1 and lower in accordance with OIML R111. It is characterized by the highest accuracy and measurement stability ranging between 1g and 1kg.

### Circulator and Liquid Temperature Sensor

The AGV-4/1000 automatic comparator features an additional circulator eliminating air bubbles and compensating liquid temperature, and comprises a top-class liquid temperature sensor of 0.001°C accuracy. The temperature is measured in 3 points of the container with the liquid (near the surface, near the bottom and in the centre).







### Suspended Weighing Pan

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

### Simultaneous Density Determination of 3 Mass Standards

The comparator enables density determination to be carried out simultaneously for 3 mass standards using one reference weight. AGV-4/1000 is equipped with a special feeder designed to load and unload the magazine.

## Technical Specifications

		AVK- 1000
OIML calibration range E1		1 g ÷ 1 kg
OIML calibration range E2		1 g ÷ 1 kg
OIML calibration range F1		1 g ÷ 1 kg
OIML calibration range F2		1 g ÷ 1 kg
OIML calibration range M1		—
OIML calibration range M2		—
Maximum capacity [Max]		1110 g
Readability [d]		0.01 mg
Repeatability for nominal load*		0.05 mg
Stabilization time		30 s
Adjustment		external
Electric compensation range		-10 g ÷ +110 g
External supplementary weights		500 g, 300 g, 100 g, 100 g
Magazine positions		4 positions
OIML Weights		1 g ÷ 1000 g
Weight diameters		5 ÷ 94 mm
Liquid **		e.g. FC-40, dist water
Display		5.7" colour resistive touch screen
Keypad		8 keys
Ingress protection - indicator		IP 43
Touch-free operation		2 programmable sensors
USB-A		2
Ethernet		10 / 100 Mbit
RS 232		2
Wi-Fi®		802.11 b/g/n
IN/OUT		4 × IN, 4 × OUT
Power supply		13,5 ÷ 16 V DC / 2,1 A
Operating temperature		+15 ÷ +30 °C
Operating temperature change rate		± 0,5°C/12h (± 0,3°C/h)
Change rate of atmospheric humidity		5%/12h (2%/4h)
Relative humidity***		30% ÷ 80%
Transport and storage temperature		-20 ÷ +50 °C
Weighing pan dimensions		ø 60 mm
Unit dimensions		690 × 710 × 1060 mm
Indicator dimensions****		206 × 140 × 70 mm

\* repeatability expressed as standard deviation from 6 measuring cycles ABBA (according to OIML R111) in stable laboratory operating conditions.

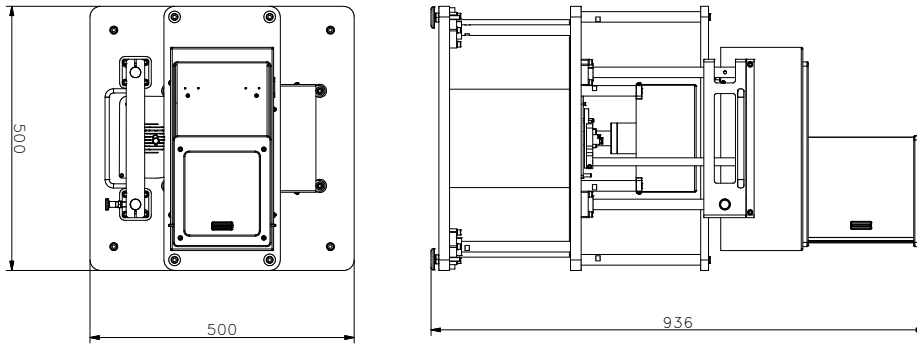
\*\* liquid to be supplied by end user

\*\*\* non-condensing conditions

\*\*\*\* the shipment consists of three packages

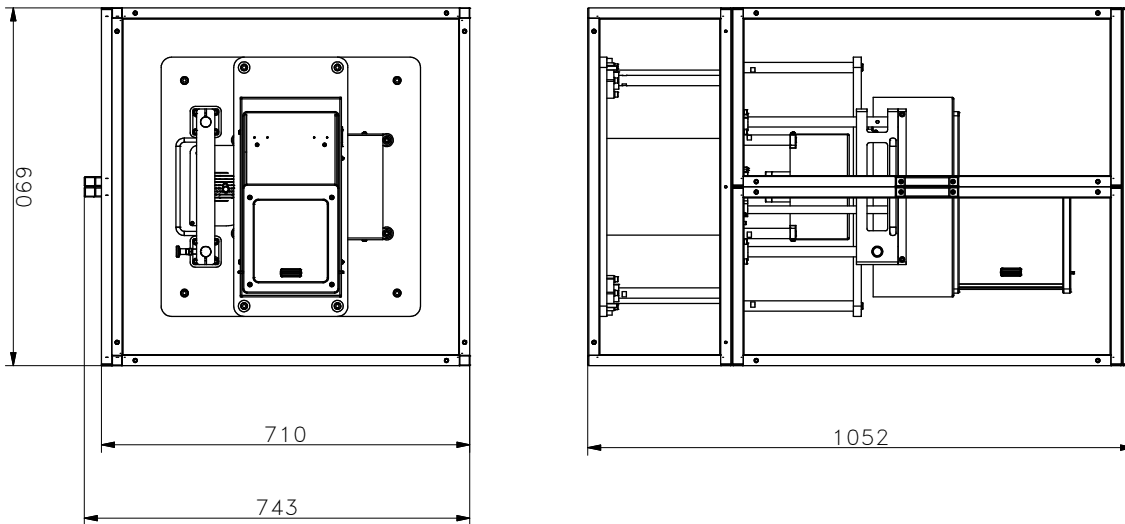
## Dimensions

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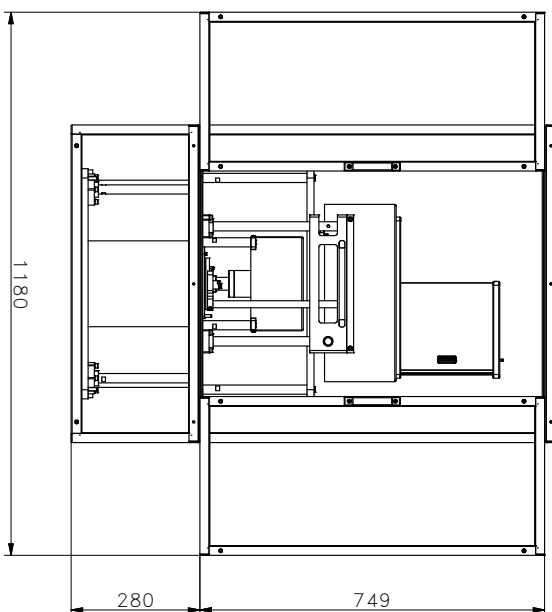
AGV-4/1000

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AGV-4/1000  
Anti-draft chamber ver.1

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AGV-4/1000  
Anti-draft chamber ver.2

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## Accessories

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### Peripheral Devices

- Epson dot matrix printer
- barcode scanner
- WD-5/3Y LCD display (backlit)

### Cables, Converters

- RS-232 – P0108 computer cable
- RS-232 – P0167 computer cable

- RS-232 – P0151 Epson printer cable

### Electrical Accessories

- power supply with ZR-02 battery

### Remaining Accessories

- load locker
- lift

## Dedicated Software

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### RMCS System

- performance of calibration procedures in a laboratory from the moment the order is placed, to the moment of issuing a calibration certificate
- compatible with THB sensors enabling recording ambient conditions
- export of report results to various files
- archiving calibration protocols, orders, certificates and ambient conditions

### RADWAG Remote Desktop

- remote control of the mass comparator using computer, telephone or tablet
- sending text messages
- version for Windows 10 and Android systems

### R-LAB

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

### Parameters Editor

- remote change of parameters
- remote on-line preview of the display
- displaying current mass indication
- software update
- file loading, editing and saving parameters to a file
- import and export of parameters
- interfaces: RS232, Ethernet and Wireless Connection
- quick and easy edition of balance parameters using computer