UYA 4Y Ultra-Microbalances
MYA 4Y Microbalances

Unrivalled precision and comfortable measurements of small masses carried out with the highest accuracy

UYA 4Y

MYA 4Y

Automatically opened weighing chamber

Proximity sensors

Functions

- Parts counting
- Percent weighing
- Statistical quality control
- Proximity sensors
- Multilingual menu
- Dosing
- Statistics
- Autotest
- Ambient conditions measurement
- Replaceable unit
- Checkweighing
- Animal weighing
- Automatic sliding door
- GLP procedures
- Moveable range
- Formulations
- Differential weighing

Features

Excellent Readability Starting from 0.1 µg
Due to exceptional weighing parameters, the UYA 4Y and MYA 4Y microbalances are intended for the most demanding laboratory applications.

Significantly Fast Measurement
Powerful processor offers new possibilities of operation assuring short indication stabilization time.

Unequalled Repeatability and Compliance with USP
4Y microbalances feature the highest measurements accuracy, excellent repeatability and are compliant with USP requirements (Chapter 41 and 1251).

Intuitive Operation and Touch Screen
5.7" colour touch screen enables intuitive operation and easy access to numerous applications and functions of the weighing instrument.

Automatic Level Control
Leveling system facilitates adjustment of device level, it also uninterruptedly controls the level state, and informs about potential level deviations.

Automatic Weighing Chamber
The system controlling weighing chamber opening enables quick access to the weighing pan. Proximity sensors allow you to open and close the weighing chamber touch-free.

Numerous Options of Data Management
Extensive storage capacity enables record of all measurement data in a form of complex reports and statistical graphs.

ALIBI Memory
Data security and protection is provided by ALIBI memory which automatically archives all carried out measurements.

Technical Specifications

	UYA 2.4Y	MYA 0.8/3.4Y	MYA 2.4Y
Maximum capacity [Max]	2.1 g	0.8 g / 3 g	2.1 g
Minimum load	10 µg	100 µg	100 µg
Readability [d]	0.1 µg	1 µg / 10 µg	1 µg
Verification scale interval [e]	1 mg	1 mg	1 mg
Tare range	–2.1 g	–3 g	–2.1 g
Repeatability (5% Max)*	0.25 µg	1 µg	0.5 µg
Repeatability (Max)	0.4 µg	4.1 µg	1 µg
Linearity	±1.5 µg	±3 µg / ±10 µg	±3 µg
Eccentric load deviation	1.5 µg	3 µg / 10 µg	3 µg
Sensitivity temperature drift**	1×10^{-6} / °C × Rt	1×10^{-6} / °C × Rt	1×10^{-6} / °C × Rt
Sensitivity time drift	1×10^{-6} / Year × Rt	1×10^{-6} / Year × Rt	1×10^{-6} / Year × Rt
Minimum weight (U=1%, k=2)	0.05 mg	0.2 mg	0.1 mg
Minimum weight (USP)	0.5 mg	2 mg	1 mg
Stabilization time	10 ÷ 20 s	max 8 s	max 8 s
Adjustment	internal	internal	internal
Moveable range	—	Yes	—
Verification	Yes	Yes	Yes
OIML Class	I	I	I
Indicator fastening	35 cm cable, wireless connection (option)***	35 cm cable, wireless connection (option)***	35 cm cable, wireless connection (option)***
Display	5.7" colour, resistive touch screen	5.7" colour, resistive touch screen	5.7" colour, resistive touch screen
Keypad	8 keys	8 keys	8 keys
Protection class	IP 43	IP 43	IP 43
Databases	19	19	19
Touch-free operation	2 programmable proximity sensors	2 programmable proximity sensors	2 programmable proximity sensors
USB-A	2	2	2
Ethernet	10 / 100 Mbit	10 / 100 Mbit	10 / 100 Mbit
RS 232	2	2	2
Wireless connection	802.11 b/g/n	802.11 b/g/n	802.11 b/g/n
IN/OUT	4 × IN, 4 × OUT	4 × IN, 4 × OUT	4 × IN, 4 × OUT
Power supply	13.5 ÷ 16 V DC	13.5 ÷ 16 V DC	13.5 ÷ 16 V DC
Power consumption	10 W	10 W	10 W
Operating temperature	+10 ÷ +40 °C	+10 ÷ +40 °C	+10 ÷ +40 °C
Atmospheric humidity****	40 ÷ 80%	40 ÷ 80%	40 ÷ 80%
Transport and storage temperature	–10 ÷ +50 °C	–10 ÷ +50 °C	–10 ÷ +50 °C
Weighing pan dimensions	ø 16 mm	ø 60 mm (for filters), ø 16 mm	ø 16 mm
Weighing chamber dimensions	ø 90 × 90 mm	ø 90 × 90 mm	ø 90 × 90 mm
Weighing device dimensions	411 × 163 × 183 mm	411 × 163 × 183 mm	411 × 163 × 183 mm
Net weight	9.1 kg	9.1 kg	9.1 kg
Gross weight	16.6 kg	16.6 kg	16.6 kg
Packaging dimensions	660 × 660 × 455 mm	660 × 660 × 455 mm	660 × 660 × 455 mm

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

Values of parameters provided in Technical Specifications table have been determined under stable laboratory conditions. Due to ambient conditions impact or/and balance setup, the above parameters may vary for environments other than laboratory.

	MYA 5.4Y	MYA 11.4Y	MYA 11/52.4Y
Maximum capacity [Max]	5.1 g	11 g	11 g / 52 g
Minimum load	100 µg	100 µg	100 µg
Readability [d]	1 µg	1 µg	1 µg / 10 µg
Verification scale interval [e]	1 mg	1 mg	1 mg
Tare range	–5.1 g	–11 g	–52 g
Repeatability (5% Max)*	1 µg	1.2 µg	2 µg
Repeatability (Max)	1.6 µg	2.5 µg	10 µg
Linearity	±5 µg	±6 µg	±10 µg / ±30 µg
Eccentric load deviation	5 µg	6 µg	6 µg / 10 µg
Sensitivity temperature drift**	1×10^{-6} / °C × Rt	1×10^{-6} / °C × Rt	1×10^{-6} / °C × Rt
Sensitivity time drift	1×10^{-6} / Year × Rt	1×10^{-6} / Year × Rt	1×10^{-6} / Year × Rt
Minimum weight (U=1%, k=2)	0.2 mg	0.24 mg	0.4 mg
Minimum weight (USP)	2 mg	2.4 mg	4 mg
Stabilization time	max 8 s	max 10 s	max 10 s
Adjustment	internal	internal	internal
Moveable range	—	—	Yes
Verification	Yes	Yes	Yes
OIML Class	I	I	I
Indicator fastening	35 cm cable, wireless connection (option)***	35 cm cable, wireless connection (option)***	35 cm cable, wireless connection (option)***
Display	5.7" colour, resistive touch screen	5.7" colour, resistive touch screen	5.7" colour, resistive touch screen
Keypad	8 keys	8 keys	8 keys
Protection class	IP 43	IP 43	IP 43
Databases	19	19	19
Touch-free operation	2 programmable proximity sensors	2 programmable proximity sensors	2 programmable proximity sensors
USB-A	2	2	2
Ethernet	10 / 100 Mbit	10 / 100 Mbit	10 / 100 Mbit
RS 232	2	2	2
Wireless connection	802.11 b/g/n	802.11 b/g/n	802.11 b/g/n
IN/OUT	4 × IN, 4 × OUT	4 × IN, 4 × OUT	4 × IN, 4 × OUT
Power supply	13.5 ÷ 16 V DC	13.5 ÷ 16 V DC	13.5 ÷ 16 V DC
Power consumption	10 W	10 W	10 W
Operating temperature	+10 ÷ +40 °C	+10 ÷ +40 °C	+10 ÷ +40 °C
Atmospheric humidity****	40 ÷ 80%	40 ÷ 80%	40 ÷ 80%
Transport and storage temperature	–10 ÷ +50 °C	–10 ÷ +50 °C	–10 ÷ +50 °C
Weighing pan dimensions	ø 26 mm	ø 26 mm	ø 40 mm, ø 26 mm
Weighing chamber dimensions	ø 90 × 90 mm	ø 90 × 90 mm	ø 90 × 90 mm
Weighing device dimensions	411 × 163 × 183 mm	411 × 163 × 183 mm	411 × 163 × 183 mm
Net weight	9.1 kg	9.1 kg	9.1 kg
Gross weight	16.6 kg	16.6 kg	16.6 kg
Packaging dimensions	660 × 660 × 455 mm	660 × 660 × 455 mm	660 × 660 × 455 mm

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

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	MYA 21/52.4Y	MYA 31.4Y
Maximum capacity [Max]	21 g / 52 g	31 g
Minimum load	100 µg	100 µg
Readability [d]	1 µg / 10 µg	1 µg
Verification scale interval [e]	1 mg	1 mg
Tare range	–52 g	–31 g
Repeatability (5% Max)*	2 µg	2 µg
Repeatability (Max)	10 µg	5 µg
Linearity	±10 µg / ±30 µg	±8 µg
Eccentric load deviation	6 µg / 10 µg	8 µg
Sensitivity temperature drift**	1×10^{-6} / °C × Rt	1×10^{-6} / °C × Rt
Sensitivity time drift	1×10^{-6} / Year × Rt	1×10^{-6} / Year × Rt
Minimum weight (U=1%, k=2)	0,4 mg	0.4 mg
Minimum weight (USP)	4 mg	4 mg
Stabilization time	max 10 s	max 10 s
Adjustment	internal	internal
Moveable range	Yes	—
Verification	Yes	Yes
OIML Class	I	I
Indicator fastening	35 cm cable, wireless connection (option)***	35 cm cable, wireless connection (option)***
Display	5.7" colour, resistive touch screen	5.7" colour, resistive touch screen
Keypad	8 keys	8 keys
Protection class	IP 43	IP 43
Databases	19	19
Touch-free operation	2 programmable proximity sensors	2 programmable proximity sensors
USB-A	2	2
Ethernet	10 / 100 Mbit	10 / 100 Mbit
RS 232	2	2
Wireless connection	802.11 b/g/n	802.11 b/g/n
IN/OUT	4 × IN, 4 × OUT	4 × IN, 4 × OUT
Power supply	13.5 ÷ 16 V DC	13.5 ÷ 16 V DC
Power consumption	10 W	10 W
Operating temperature	+10 ÷ +40 °C	+10 ÷ +40 °C
Atmospheric humidity****	40 ÷ 80%	40 ÷ 80%
Transport and storage temperature	–10 ÷ +50 °C	–10 ÷ +50 °C
Weighing pan dimensions	ø 40 mm, ø 26 mm	ø 26 mm
Weighing chamber dimensions	ø 90 × 90 mm	ø 90 × 90 mm
Weighing device dimensions	411 × 163 × 183 mm	411 × 163 × 183 mm
Net weight	9.1 kg	9.1 kg
Gross weight	16.6 kg	16.6 kg
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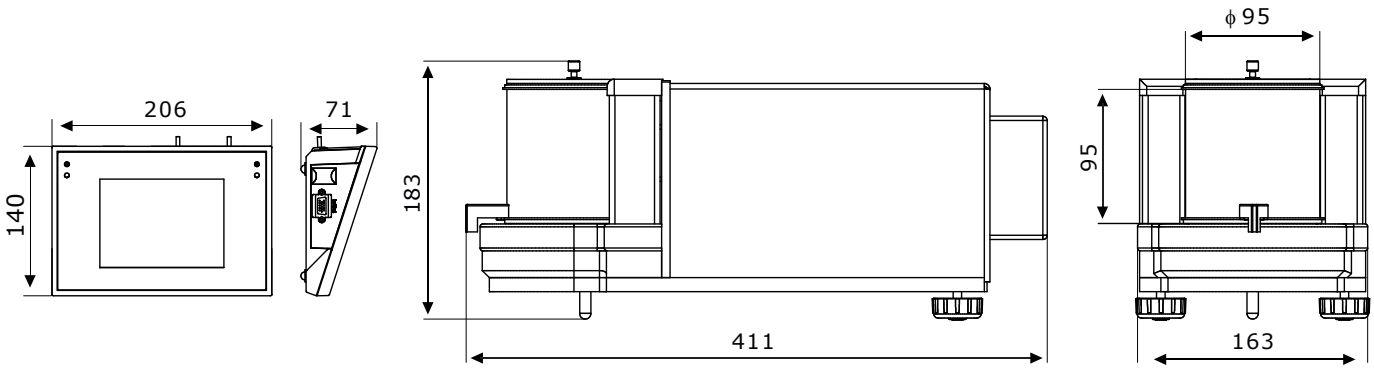
Dimensions



Accessories

Weighing Tables
- granite antivibration table
- antivibration tables for laboratory balances

Professional weighing
- Adapter for calibration of MY11 series pipettes

Ambient Conditions
- DJ-05 anti-static ionizer
- THB-S or THB-P sensor

Peripheral Devices
- Epson dot matrix printer
- barcode scanners
- WD-5/3Y LCD display

Cables, Converters
- P0108: RS 232 cable (balance-computer)
- P0167: RS 232 cable (balance-computer)
- P0151: RS 232 cable (balance - Epson printer)

Electrical Accessories
- ZR-02 power supply with battery

Dedicated Software

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

E2R Weighing Records
- complete, automated databases synchronization
- fully supported processes of labelling and parts counting
- record of weighings, weighings archiving
- basic and advanced (with graphs) reports

Label Editor R02
- designing label templates
- sending graphics and fonts to label printers
- printing label templates using connected printers

Pipettes
- determining measurement errors of pipettes volume
- accordance with ISO 8655
- calibration of single-channel and multi-channel pipettes
- calibration of fixed-volume and variable-volume pipettes

Audit Trail Reader
- support of Audit Trail function available for 3Y, 4Y, HY10, WLY, WPY series weighing instruments
- record of operator's activity from the moment of logging in

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.

RAD KEY
- Establishing cooperation between a weighing instrument and a computer

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

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

LabView Driver
- operation of RADWAG balances in LabView environment

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

RADWAG Remote Desktop
- remote operation via computer, mobile phone or tablet
- sending text messages
- version for Windows 10 and Android systems