# **UYA 4Y.F Ultra-Microbalances MYA 4Y.F Microbalances**



Excellent precision and accuracy of determining filters absorption capabilities during differential mass measurement





MYA 4Y.F1



Filters mass measurement

## **Functions**



weighing







Filters weighing



Autotest



procedures



Proximity sensors



Ambient conditions measurement

Air buoyancy

correction



Multilingual menu



Replaceable unit

## **Features**

## The Most Precise Control Over Filters Absorption Capabilities

Professional highly hermetic weighing chamber and an open-work weighing pan of the MYA 4Y.F microbalance both enable accurate measurements of filters of various types and dimensions.

## **Significantly Fast Measurement**

Powerful processor offers new possibilities of operation assuring short indication stabilization time and repeatability.

#### 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.

## **Touch-Free Operation**

Two programmable proximity sensors can be assigned with any function or application. The given function when assigned is both run and operated 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.

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## **Technical Specifications**

	UYA 2.4Y.F	MYA 5.4Y.F	MYA 5.4Y.F1
Maximum capacity [Max]	2.1 g	5.1 g	5.1 g
Minimum load	10 μg	100 μg	100 μg
Readability [d]	0.1 μg	1 μg	1 μg
Verification scale interval [e]	1 mg	1 mg	1 mg
Tare range	-2.1 g	–5.1 g	–5.1 g
Repeatability*	0.25 μg (Rt ≤ 0.2 g) 0.4 μg (0.2 g< Rt ≤ 2 g)	1 $\mu$ g (Rt $\leq$ 1 g) 1.6 $\mu$ g (1 g $<$ Rt $\leq$ 5g)	1 μg (Rt ≤ 1g) 1.6 μg (1g < Rt ≤ 5g)
Linearity	±1.5 μg	±5 μg	±5 μg
Eccentric load deviation	1.5 μg	5 μg	5 μg
Sensitivity temperature drift**	1 × 10 <sup>-6</sup> / °C × Rt	$1 \times 10^{-6} / ^{\circ}\text{C} \times \text{Rt}$	$1 \times 10^{-6}$ / °C × Rt
Sensitivity time drift	$1 \times 10^{-6}$ / Year $\times$ Rt	$1 \times 10^{-6}$ / Year $\times$ Rt	$1 \times 10^{-6}$ / Year $\times$ Rt
Minimum weight (U=1%, k=2)	0.05 mg	0.2 mg	0.2 mg
Minimum weight (USP)	0.5 mg	2 mg	2 mg
Stabilization time	10 ÷ 20 s	max 8 s	max 8 s
Adjustment	internal	internal	internal
Verification	Yes	Yes	Yes
OIML Class	1	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	$4 \times IN, 4 \times OUT$	$4 \times IN, 4 \times OUT$	$4 \times IN, 4 \times OUT$
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 ℃	−20 ÷ +50 °C	-20 ÷ +50 ℃
Weighing pan dimensions	ø 50 mm	ø 100 mm (for filters), ø 26 mm	ø 160 mm (for filters), ø 26 mm
Weighing chamber dimensions	ø 118 × 35 mm	ø 118 × 35 mm	ø 168 × 35 mm
Weighing device dimensions	400 × 160 × 168 mm	400 × 160 × 168 mm	450 × 180 × 168 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

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.

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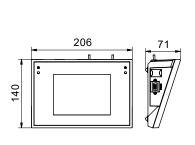
<sup>\*</sup> repeatability is expressed as a standard deviation from 10 weighing cycles

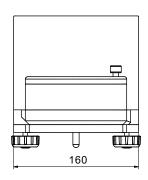
<sup>\*\*</sup> parameter determined in the following temperature range:  $+15 \div +35$  °C

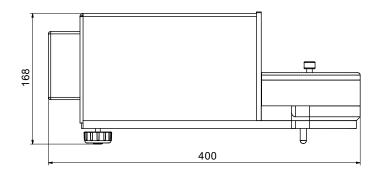
<sup>\*\*\*</sup> optional solution on purchase order

<sup>\*\*\*\*</sup> non-condensing conditions

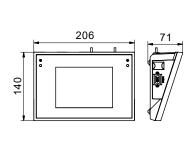
## **Dimensions**

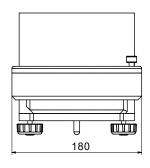


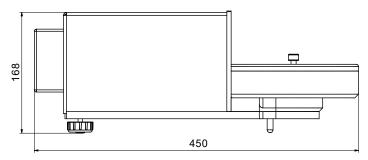




F version







F1 version

## Accessories

## **Weighing Tables**

- granite antivibration table
- antivibration tables for laboratory balances
- professional weighing table

## **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

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