## APPLICATION

4Y series is a modern weighing device, especially useful when the measurement requires perfect accuracy and high speed.

## FEATURES OF 4Y SERIES MICROBALANCE

REPEATABILITY (SD) <1d

MEASUREMENT DURATION <5 s.

ETHERNET

**MYA 0,8/3.4Y**
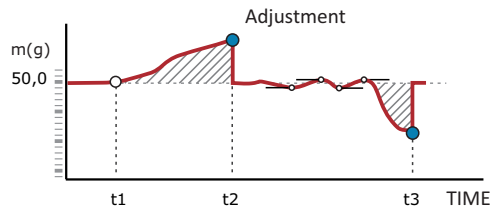(standard solutions for any operating conditions)

**MYA 5.4Y.F**
(filters weighing)

**MYA 5.4Y.F1**
(filters weighing)

## ACCURACY

Measurement accuracy is guaranteed with an adjustment procedure carried out using an internal adjustment weight. This fully automatic process is controlled by a module intended to diagnose ambient conditions change (on-line). Adjustment processes (internal and external) can be performed in accordance with a specially designed schedule.

Adjustment

m(g)
50,0

t1   t2   t3   TIME

## FUNCTIONALITY

4Y series microbalance is an optimized modern device which features an option of automatic level control (Level SENSING) as one of numerous functions.

The practical effect of balance customization are individual user profiles and gradable permission levels for access to balance menu.

Programmable proximity sensors offer wide range of possibilities: weighing chamber control, zeroing, tarring, printout.

Several functions such as differential weighing facilitate multi-stage mass control of one and the same sample subjected to various processes. Pipettes calibration function is an ergonomic tool designed to calibrate and control piston pipettes with the use of gravimetric method. MEDIA module, as one of the greatest 4Y series assets, provides the user with an on-screen help and support.

## COMPLIANCE WITH REGULATIONS

Owing to security system and possibility to document the process by means of printouts (standard/editable), the 4Y balance meets requirements imposed by GLP/GMP systems for various industries (pharmacy, petrochemistry, environmental protection).

PARTS COUNTING

DOSING

CHECKWEIGHING

FORMULATION

PERCENT WEIGHING [%]

STATISTICS

ANIMAL WEIGHING

DIFFERENTIAL WEIGHING

PIPETTES CALIBRATION

SQC

AUTOTEST

AUTOMATIC DOOR

AIR DENSITY CORRECTION

GLP / GMP PROCEDURES

INFRARED SENSORS

AMBIENT COND. MONITORING

UNITS

MOVABLE RANGE

## MEDIA module
### support within a reach of your hand

A sheer novelty of 4Y microbalance is the MEDIA module. With it you can learn using videos providing information on any relevant matter.

MEDIA module is a convenient way allowing you to broaden your knowledge on mass measurement but noe exlusively ( recommendations, SOP, reminders, self-designed testing procedures).
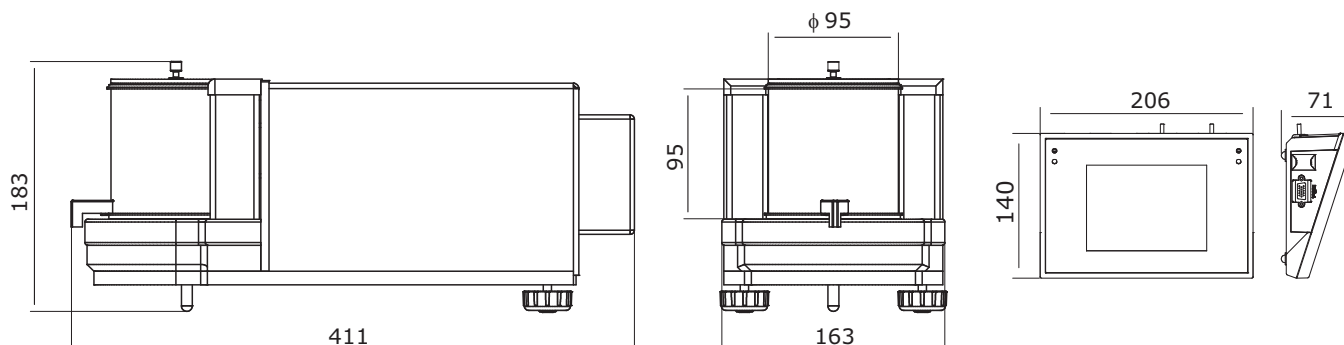
## Technical specification:

| | MYA 0,8/3.4Y | MYA 5.4Y.F | MYA 5.4Y.F1 |
|---|---|---|---|
| Verification | ● | ● | ● |
| Max load | 0,8/3 g | 5,1 g | 5,1 g |
| Readability | 1/10 µg | 1 µg | 1 µg |
| Repeatability * | 1 µg / 5 µg | 1 µg (Rt ≤ 2g) <br> 1,6 µg (2g < Rt ≤ 5g) | 1 µg (Rt ≤ 2g) <br> 1,6 µg (2g < Rt ≤ 5g) |
| Linearity | ±3 µg / ±4 µg | ±5 µg | ±5 µg |
| Eccentric load deviation | 3 µg / 4 µg | 5 µg | 5 µg |
| Sensitivity offset | $1,5 \times 10^{-6} \times Rt$ | $1,5 \times 10^{-6} \times Rt$ | $1,5 \times 10^{-6} \times Rt$ |
| Sensitivity temperature drift | $1 \times 10^{-6} / °C \times Rt$ | $1 \times 10^{-6} / °C \times Rt$ | $1 \times 10^{-6} / °C \times Rt$ |
| Sensitivity stability | $1 \times 10^{-6} / Year \times Rt$ | $1 \times 10^{-6} / Year \times Rt$ | $1 \times 10^{-6} / Year \times Rt$ |
| Minimum weight (USP) | 2 mg | 2 mg | 2 mg |
| Minimum weight (U = 1%, k = 2) | 0,2 mg | 0,2 mg | 0,2 mg |
| Pan size | Ø 16 mm <br> Ø 60 mm (weighing pan for filters) | Ø 26mm, <br> Ø 100mm | Ø 26mm, <br> Ø 160mm |
| Weighing chamber dimensions | Ø 90 × 90 mm | Ø 118 × 35 mm | Ø 168 × 35 mm |
| Stabilization time | max 8 s | | |
| Adjustment/Calibration | automatic (internal) | | |
| Power supply | 13,5 ÷ 16 V DC / 2,1 A | | |
| Casing of the terminal | ABS plastic | | |
| Display | colour 5,7"(640x480) with a resistive touch screen | | |
| Processor | 2 × 1 GHz | | |
| Memory | RAM: 256 MB DDR2, flash: 8 GB microSD | | |
| Interface | 2×USB host, 2×RS 232, Ethernet 10/100 Mbit, Wireless Module | | |
| Audio module | YES (voice messages support) | | |
| Video support | YES (videos and multimedia instructions) | | |
| Manual on screen | YES | | |
| IN / OUT | 4 in / 4 out (digital) | | |
| Packaging size | 660×660×455 mm | | |
| Net weight/Gross weight | 9,1kg / 16,6 kg | | |
| **Ambient conditions** | | | |
| Working temperature | +10 ° ÷ +40 °C | | |
| Change rate of working temperature | ±0,3 °C/h (±1 °C/8h) | | |
| Atmospheric humidity ** | 40% ÷ 80% | | |
| Change rate of atmospheric humidity | ±1%/h (±4%/8h) | | |

Rt - net weight

* - repeatability expressed as standard deviation from 10 weighing cycles
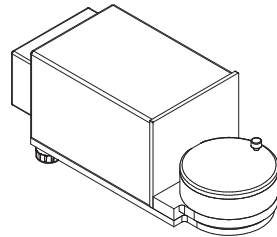
** - Non-condensing conditions
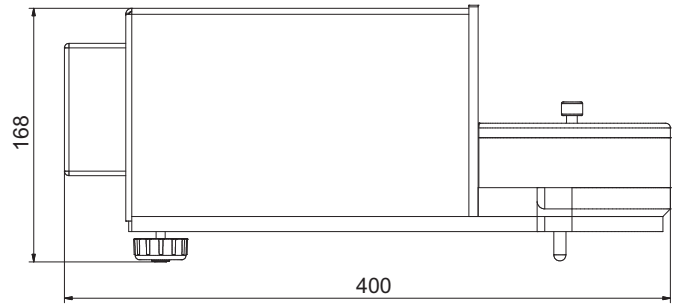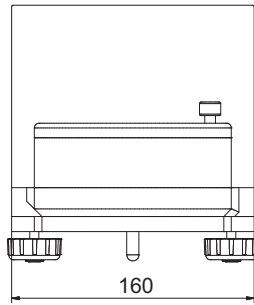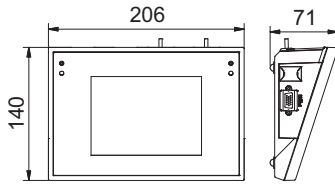
## Dimensions:



Owing to fastidious selection of mechanical design components our balance allows to obtain great stability and repeatability of indications regardless of measured sample size and conditions of use. Multi-shield mechanical design of the weighing module provides excellent thermal stability. Even with challenging ambient temperature your weighing is precise and accurate.
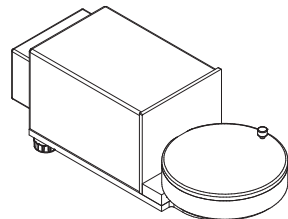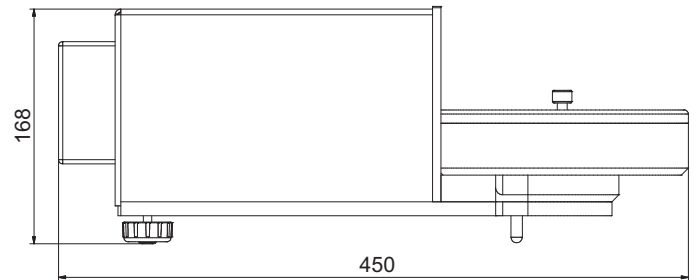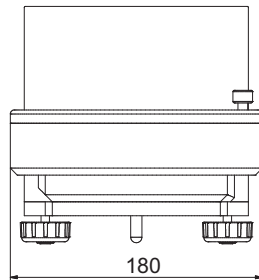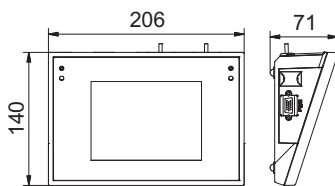4Y microbalances offer modern hardware and software. In-build programs, Windows Embeded Compact 7 operating system, Flash memory, Double Hardware system guarantee fast measurement and reliability when it comes to data acquiring and processing. The 4Y series comprises 5,7" colour touchscreen providing ever more increased balance operation functionality and even more practical results presentation. Complex databases allow measurement record along with printout and export option.

## Dimensions:

### F version



### F1 version



## Additional equipment:

| | |
|---|---|
| Antivibration table for microbalances | Antistatic ionizer DJ-03 |
| Professional weighing table | THB ambient conditions module |
| Impact Epson printer | Additional LCD display "WD-5" |
| Label printer Citizen | PC USB keyboard |
| Anti draft shield for microbalances | Power adapter with battery and charger ZR-02 |
| Tare and Print foot button | Mass standard |
| R-LAB computer software | Antistatic cable PA 1 |
| REC-FS computer software | Bar code scanner |
| | Cable RS 232 (balance - Epson, Citizen printer) "P0151" |