## MYA 3Y MICROBALANCES

release date 06-03-2015









### 3Y SERIES MICROBALANCES - THE NOVELTIES

- ✓ Higher resolution up to 600 million intervals
- More precise temperature measurement
- Brand new signal filtering algorithm, enabling selective tuning to actual interfering frequency.
- Modernized mechanics design Susceptibility to air drafts reduced six times
- Cooperation with THB module
- Brand new, faster terminal comprising: audio module (audio readout of the weighing result), video module (tutorial videos playback), WiFi interface and possibility of cooperation with applications based on ANDROID system.

New generation of microbalances MYA 3Y are intended to measure mass with the highest accuracy. They feature 5,7" LCD colour touch panel which provides new possibilities of balance operation and presenting measurement results. Measurement reliability and accuracy are maintained by system of automatic internal adjustment/calibration.

Level control in the MYA 3Y series is based on LevelSENSING system, RADWAG patented solution, which uses a system of an electronic level. New function is online monitoring of ambient conditions through built-in ambient conditions module with visualization on balance's display. Personalization of balance settings is carried out in extended user profiles and multilevel system of access levels to balance's menu.

Control over opening and closing of the weighing chamber's door is carried out through programmable IR proximity sensors, installed on the terminal's overlay.

Differential weighing mode aids mass control of the same sample subjected to differed processes over time. It is particularly useful in pharmacy, environmental protection, petroleum chemistry, etc. Pipettes calibration mode is carried out using an adapter, which is an ergonomic tool aiding calibration and checking of piston pipettes using gravimetric measuring method. Extended databases enable storing all carried out measurements, with option of printing and exporting them. Standard and user defined printouts allow for maintaining documentation complying with GLP/GMP requirements practically in any application.



Parts counting



Dosing



Checkweighing



Formulation



Percent deviations



Statistics



Animal weighing



Differential weighing



Pipettes calibration



Statistical Quality Control



Autotest (GLP, Filter)



Automatic sliding door



Air buoyancy compensation



GLP procedures



Infrared sensors



Ambient conditions



monitoring

Newton unit



measurement



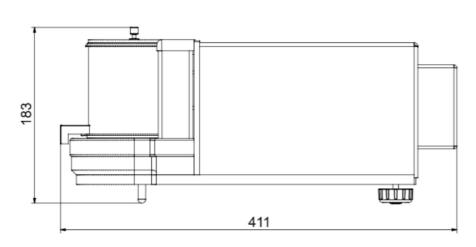
Replaceable units

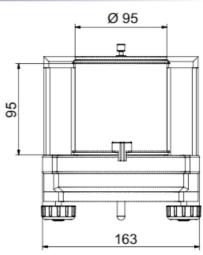


Moveable range \*

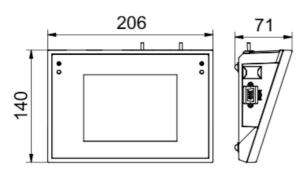
\* - only for MYA 0,8/3.3Y and MYA 11/52.3Y balances

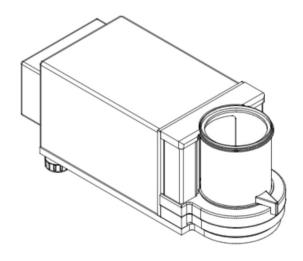
### **Dimensions:**





## **Dimensions:**





|                                  | MYA 2.3Y  | MYA 0,8/3.3Y                                | MYA 5.3Y                                  | MYA 11.3Y   | MYA 21.3Y   |
|----------------------------------|---|---|---|---|---|
|                                  |   | •   | -   |   |   |
| Max load                         | 2 g   | 0,8 g / 3 g                                 | 5 g                                       | 11 g  | 21 g  |
| Readability                      | 1 µg  | 1 µg / 10 µg                                | 1 µg                                      | 1 µg  | 1 µg  |
| Repeatability *                  | 1 µg  | 1 µg (Rt ≤ 0,8g)<br>4,1 µg (0,8g < Rt ≤ 3g) | 1 μg (Rt ≤ 2g)<br>1,6 μg (2g < Rt ≤ 5,1g) | 1,5 µg (Rt ≤ 0,2g)<br>2,0 µg (0,2g < Rt ≤ 5g)<br>2,5 µg (5g < Rt ≤ 11g) | 1,5 µg (Rt ≤ 0,2g)<br>2,0 µg (0,2g < Rt ≤ 5¢<br>2,5 µg (5g < Rt ≤ 11g<br>3,0 µg (11g < Rt ≤ 21¢ |
| Linearity                        | ±3 µg   | ±3 μg / ±10 μg                              | ±5 μg                                     | ±6 μg   | ±7 μg   |
| Eccentric load deviation         | 3 µg  | 3 µg / 4 µg                                 | 5 µg                                      | 6 µg  | 7 µg  |
| Sensitivity offset               | 1,5 × 10 <sup>6</sup> × Rt                                    | 1,5 × 10 <sup>6</sup> × Rt                  | 1,5 × 10 <sup>6</sup> × Rt                | 3 × 10 <sup>-6</sup> × Rt   | 4 × 10 <sup>6</sup> × Rt  |
| Sensitivity temperature drift    | 1 × 10 <sup>6</sup> / °C × Rt                                 | 1 × 10°/ °C × Rt                            | 1 × 10 <sup>6</sup> / °C × Rt             | 1 × 10 <sup>-6</sup> / °C × Rt  | 1 × 10° / °C × Rt   |
| Sensitivity stability            | 1 × 10 <sup>6</sup> / Year × Rt                               | 1 × 10 <sup>6</sup> / Year × Rt             | 1 × 10 <sup>-6</sup> / Year × Rt          | 1 × 10 <sup>-6</sup> / Year × Rt  | 1 × 10 <sup>6</sup> / Year × Rt   |
| Minimum weight (USP)             | 2 mg  | 2 mg  | 2 mg                                      | 3,0 mg  | 3,0 mg  |
| Minimum weight (U = 1%, k = 2)   | 0,2 mg  | 0,2 mg                                      | 0,2 mg                                    | 0,3 mg  | 0,3 mg  |
| Pan size                         | ø 16 mm   | ø16 + 60 mm (for filters)                   | ø 26 mm                                   | ø 26 mm   | ø 26 mm   |
| Weighing chamber dimensions      |   |   | ø 90 × 90 mm                              |   |   |
| Stabilization time               | 5 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, WiFi 802.11 b,g,n |   |   |   |   |
| Audio module                     | YES (voice messages support)                                  |   |   |   |   |
| Video support                    |   | YES (videos and multimedia instructions)    |   |   |   |
| IN / OUT                         |   |   | 4 in / 4 out (digital)                    |   |   |
| Ambient conditions               |   |   |   |   |   |
| Working temperature              | +10 ° ÷ +40 °C  |   |   |   |   |
| Change rate of working temperatu | ıre   | ±0,3 °C/h (±1 °C/8h)                        |   |   |   |
| Atmospheric humidity             |   | 40% ÷ 80%                                   |   |   |   |
| Change rate of atmospheric humi  | ditv  | y ±1%/h (±4%/8h)                            |   |   |   |

Rt - net weight

Data given in tables are values determined in typical laboratory conditions. In the actual operation conditions the values of these parameters may differ from those listed above because of the impact of ambient conditions and/or balance settings.

 $<sup>^{\</sup>ast}$  Repeatability is expressed as a standard deviation from 10 weighing cycles.

# **Technical specification:**

#### MYA 11/52.3Y

|                                     | -   |  |  |
|-------------------------------------|---|--|--|
| Max load                            | 52 g  |  |  |
| Readability                         | 1 µg / 10 µg  |  |  |
|                                     | 1,5 μg (Rt ≤ 0,2g)  |  |  |
| Repeatability *                     | 3,0 µg (0,2g < Rt ≤ 11g)                                      |  |  |
|                                     | 10 μg (11g < Rt ≤ 52g)  |  |  |
| Linearity                           | ±10µg / ±30 µg  |  |  |
| Eccentric load deviation            | 6 µg / 10 µg  |  |  |
| Sensitivity offset                  | 3 × 10 <sup>6</sup> × Rt                                      |  |  |
| Sensitivity temperature drift       | 1 × 10°/°C × Rt   |  |  |
| Sensitivity stability               | 1 × 10 <sup>6</sup> / Year × Rt                               |  |  |
| Minimum weight (USP)                | 3,0 mg  |  |  |
| Minimum weight (U = 1%, k = 2)      | 0,3 mg  |  |  |
| Pan size                            | ø 26 mm / ø 40 mm   |  |  |
| Weighing chamber dimensions         | ø 90 × 90 mm  |  |  |
| Stabilization time                  | 5 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, WiFi 802.11 b,g,n |  |  |
| Audio module                        | YES (voice messages support)                                  |  |  |
| Video support                       | YES (videos and multimedia instructions)                      |  |  |
| IN / OUT                            | 4 in / 4 out (digital)  |  |  |
| 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)  |  |  |
| Pr 1 111                            | •   |  |  |

Rt - net weight

Data given in tables are values determined in typical laboratory conditions. In the actual operation conditions the values of these parameters may differ from those listed above because of the impact of ambient conditions and/or balance settings.

# **Additional equipment:**

| Antivibration table for microbalances | Antistatic ionizer DJ-03                                |  |
|---------------------------------------|---|--|
| Professional weighing table           | THB 2 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   |  |
| PW-WIN computer software              | Antistatic cable PA 1                                   |  |
| RAD-KEY computer software             | Bar code scanner  |  |
| REC-FS computer software              | Cable RS 232 (balance - Epson, Citizen printer) "P0151" |  |



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