PT BALANCE SERIE

Complete system for pipette checking

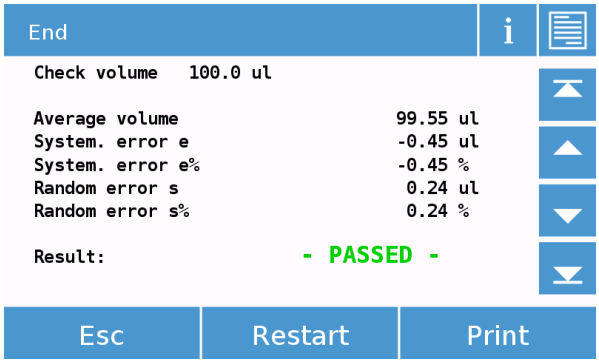
Pipettes are widely used instruments in laboratories and their proper maintenance is essential to ensure correct and reliable results. Each laboratory should establish a regular verification program, in order to carry out their preventive maintenance or (re) calibration, if necessary.

Pipette check

This series of balances is designed for the verification of piston pipettes using the gravimetric method. The embedded "Pipette Check" software allows you to test the correct operation of a pipette by selecting a verification method.
At the end, a detailed report is generated with the overall test result (compliant or not-compliant pipette) and the relative partial values.

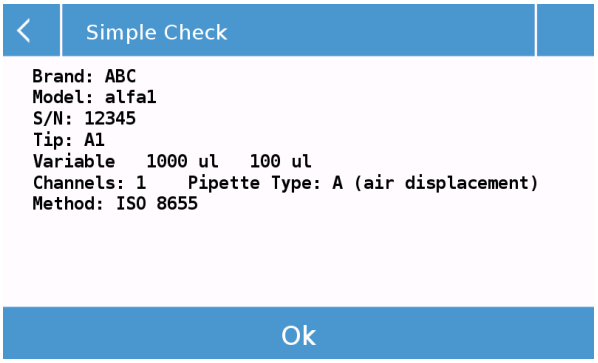
ISO8655 compliance

It is possible to identify whether a pipette needs maintenance or (re)calibration by assessing its performance according to the specifications given by the ISO8655 directive, which describes exactly the procedure and the results that must be obtained to consider a pipette compliant. The messages on the balance's screen guide the user through the required steps to carry out the test in complete compliance with the requirements of the directive.



Verification methods

Customized control methods can also be defined: the volumes to be checked and the number of samples can be entirely defined by the user.
Two predefined methods are available: 100% and 10% volume test with 4 samples each or only 100% volume test with 4 samples.
Internal laboratory procedures can use these control methods for faster daily checks.



Database

For frequent or many pipette checks at a time, pipette informations (model, serial number, pipette type, tip, number of channels, nominal value, ...) can be stored in the balance's internal database for easy recall and greater speed of the control procedure.

Evaporation trap

This accessory (included with the -PT models) consists of a special weighing container designed to considerably reduce the evaporation of the liquid which occurs naturally during the pipette test procedure. If not well taken into consideration, this effect will negatively affects the tests by increasing the measurement error leading to an incorrect final result, especially in the case of small volumes. The evaporation trap creates a saturated area of water vapor above the test tube containing the liquid coming from the pipette, thus the evaporation of the latter is minimal during the procedure and realiable results can be obtained.

Which balance's model to choose

The balance must be chosen based on the volume of the pipette to be checked. Smaller volumes will need higher resolution balances. Within the current family of balances for pipette checking it is possible to check the following volumes, in accordance with the ISO 8655 standard:

Volume* of the pipette to be checked V	**Minimum requirement for the resolution of the balance to be used mg**
10 µl < V ≤ 100 µl	0.01
100 µl < V ≤ 1000 µl	0.1
1 ml < V ≤ 10 ml	0.1
10 ml < V ≤ 200 ml	1
* the nominal value can be considered [ISO8655-6:2002]	

However, the balances of this series can always be used for normal laboratory weighing operations; in the case of -PT models, the evaporation trap is easily removable.

Main features:

- 5 inch color touch-screen display (800x480)
- Draftshield with 3 sliding doors
- RS232 serial output
- Selectable measuring units
- On-board Software functions: Pipette Check, piece counting, Check weighing, Percentage weighing, Statistics, Animal weighing, Peak hold, Density determination, Recipe, Textile
- Multi-user with password protection, Multi-language
- GLP protocol
- Internal Database
- USB port to import/export data of database

Verifiable pipette types:

- Fixed Volume / Variable Volume
- Air displacement / Positive displacement (reusable) / Positive displacement (disposable)

Verification methods:

- ISO8655
- 4x (100% 10%): 4 samples at 100% and 10% of the nominal volume
- 4x (100%): 4 samples at 100% of the nominal volume
- Custom: number of samples and percentage of the volume of your choice

Models:

	Max	Resolution	Calibration	Pan	Evaporation trap
M5-HPB-105-PT	102 g	0,01 mg	automatic internal	Ø 80mm	included
M5-M214Ai-PT	220 g	0,1 mg	automatic internal	Ø 80mm	included

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