DENSITY BALANCE

0.1mg, 1mg & 10mg

PHOENIX High Precision Balances incorporate advanced Electro Magnetic Force Restoration (EMFR) technology for offering unmatched accuracy and reliability, coupled with unique ADC circuit with inbuilt temperature compensation to offer a very high stability. All adjustment parameters are programmable to take care of any minor mismatchof different sub-assemblies & Balances are configured with these parameters.

Density Determination Kit is available in 2 types one to be mounted on the pan and the other type is with attachment for weigh below the balance. Density Determination Kit consists density weighing pan assembly, stainless steel base for beaker, glass beaker, optional sinker for testing materials having density less than water and software (program) for density determination.

Facility for programming density of liquid (other than water) and temperature of water.
In case of multiple samples, storage of the entire sample weights in air first and then in water, viewing of densityof individual samples one by one on the display.

To measure density of solids using a balance is an easy and convenient process that delivers highly reliable results when compared to other methods in which the volume of the part is determined independently of the weight. This makes the purchase of the Density Kit accessory a very cost-effective investment. With the addition of a glass sinker of known volume, the Density Kit can also be used for determining the density of liquid samples.

The built-in Density application provides step-by-step instructions making it easy for even untrained operators to use. Benefit further from:

- Automatic density calculations for solids and liquids including temperature adjustment of the reference liquid
- Statistic evaluation of multiple samples
- All results, including User, Sample ID, Lot Number, Time and Date can either be printed or saved on a USB stick.

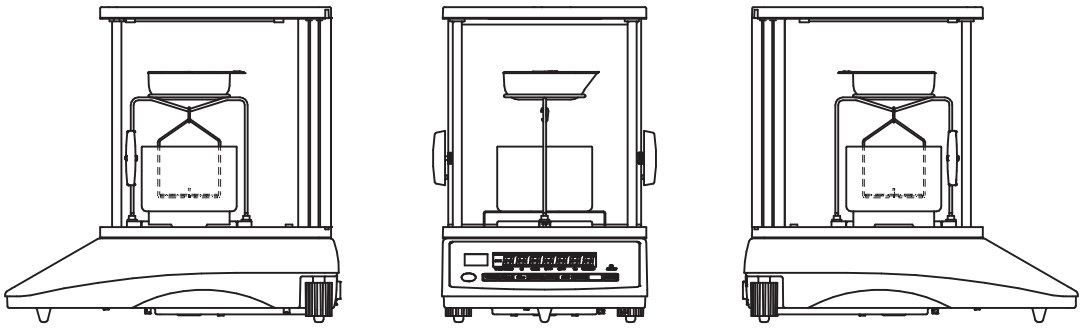
Determination of Density in Solids Samples

The solid is weighed in air (A) and then again (B) in the auxiliary liquid with a known density. The density of the solid ρ can be calculated as follows:

$$\rho = \frac{A}{A - B} (\rho_0 - \rho_L) + \rho_L$$

- ρ = Density of the sample
- A = Weight of the sample in air
- B = Weight of the sample in the auxiliary liquid
- ρ_0 = Density of the auxiliary liquid
- ρ_L = Density of air

The temperature of the liquid must be taken into account as this can cause density changes of the order of magnitude 0.001 to 0.1 per °C, the effect of which can be seen in the third decimal place of the result



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