Onafis
By My Bacchus

Densios calibration instructions

I. Preamble

As the Densios is placed at a different position from your reference, there may be differences between the density values measured by the Densios and those measured at the taster or other sampling ports. 1
Calibration is necessary for the first installation, it is not necessary to calibrate it later. The method recommended by the Onafis team is a calibration with your reference densimeter.

II. Calibration with a reference densimeter

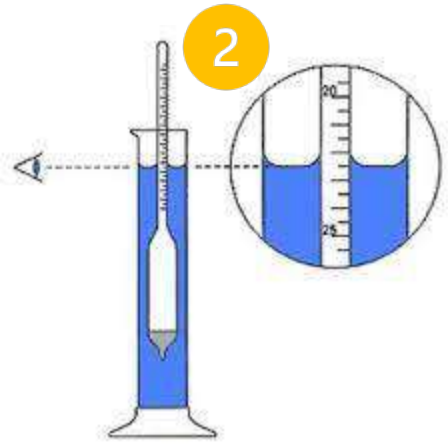
- The Densios must be immersed in your tank. 1
- Read the value of our sensor via the Onafis interface. As a reminder, the measurement interval is one hour.
- Take a sample from the fermenter where the Densios is located and measure the density with a mustimeter or an electronic densimeter (type DMA from Anton Paar). Be sure to take the sample during an Onafis survey. It is recommended to repeat the density measurement 2-3 times with the reference densimeter to confirm the measurement. Protocols for the use of the manual and electronic densimeter are included in this manual.

- If the Densios measurement is different from another densimeter, calibrate on the application with the reference value measured by the reference densimeter. Otherwise, calibration is not necessary.

III. Protocol for the use of densimeters

A. Mustimeter

- Take a sample from the taster of the fermenter previously disinfected.
- Degas the sample by shaking.
- Pour the degassed sample into a clean and dry test tube. The test tube must be almost full.
- Insert the mustimeter, making sure that it is clean and dry. There should be no bubbles.
- Wait a few seconds for the mustimeter to stabilize and then read the value at eye level, indicated by the bottom of the meniscus. 2
- Rinse the mustimeter with water and let it air dry.



B. DMA Anton Paar

- Turn on the DMA
- Check that the measurements indicated are the Density in g/cm3 and the Temperature in °C. 3 Otherwise, go to MENU > MEASUREMENT UNITS > DENSITY > DENSITY. If you have a pre-recorded method, you can use it.
- Rinse the DMA 3 times with the matrix to be analyzed, remembering to discard the rinse samples.
- Collect the matrix. Check that there are no bubbles in the cell.
- Read the value and take a second measurement to confirm the first.
- Empty the cell by pressing the pump lever.
- Rinse the DMA with water and then alcohol (or other appropriate cleaning solvent) to ensure long-term accuracy of your results.

If the cell is not properly cleaned, residue may form and cause inaccurate results. Depending on the application, it may also be necessary to clean between each measurement.

- Pump the solvent through the entire measuring system several times.
- Empty the cleaning solvent and dry the cell by pumping in a vacuum. For storage of less than one day, fill the measuring cell with deionized water or solvent.

/!\ When the cell is filled with a liquid, the DMA must remain upright and under no circumstances be lying down.

IV. Water calibration - 1000 kg/m^3

This method is less recommended than the calibration method with another densimeter.

- Put water at room temperature in a container suitable for the Densios sensor. The calibration water must be the water used for production.
- Place the Densios sensor in the container. The sensor must not touch the edges, otherwise change the container.
- Check that there are no bubbles.
- If the value read is different from 1000, calibrate by entering 1000 kg/m3 as reference value. 4

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