

Validation / Calibration **Dencytee**

Quick Guide



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Intended Use

The Dencytee Sensor Unit is designed to measure turbidity in a liquid medium. The turbidity may be correlated to the total cell density. The measurement may be used for the control of bioprocess within the defined specifications (please see the Cell Density Monitoring Operating Instructions, Chapter 16).

About this Quick Guide

The Quick Guide will help the users to validate and calibrate the Dencytee Unit. Every 6 months of running time a verification of the sensor calibration is requested. Calibration of a Sensor Unit is required if the Sensor Unit verification did not pass successfully. The Quick Guide does not replace the Operating Instructions, which are available at www.hamiltoncompany.com. All further information such as Liability, the Safety Precautions, Disposal Instructions and the Operation description are available in this document.



⚠ ATTENTION! Complete Instructions are available in the Cell Density Monitoring System Operating Instructions, Ref 624702.

1 Mount the Dencytee Unit

1. Align the pins of the M12 connector and connect the Pre-amplifier to the Arc View Controller using the Sensor Unit Cable.
2. Verify that the sensor's male VP connector and the Pre-amplifier's female VP connector are dry and clean.
3. Align the sensor VP head and the Pre-amplifier connector and connect the Sensor in the Pre-amplifier.
4. Hand-tighten the connecting nut of the Pre-amplifier's VP Connector to ensure a robust and waterproof seal.
5. Mount the Unit in a stand.

2 Verify the Dencytee Sensor Unit

⚠ ATTENTION! Make sure that the Val/Cal Solution (Ref 243886) is not expired and avoid contamination or dilution.

1. Power on the Arc View Controller. Equilibrate the Val/Cal Solution (Ref 243886) at 23°C +/- 1°C for at least 30 min prior to starting the Verification procedure.

- Go to the Main Menu and enter the Calibration Menu. Select the Validation / Check Unit Calibration to start the Verification procedure (Figure 1).
- Select the channel. The sensor type is automatically detected.
- Enter the user name.
- Make sure that the light path is clean, dust-free and placed in the dark. Press Measure in air to start the Verification procedure.
- Insert the sensor directly in the bottle of the Val/Cal solution and place in the dark. Make sure that the light path is well immersed. Press Measure in solution. The successful Verification is indicated. If this procedure fails it is recommended to perform a calibration.

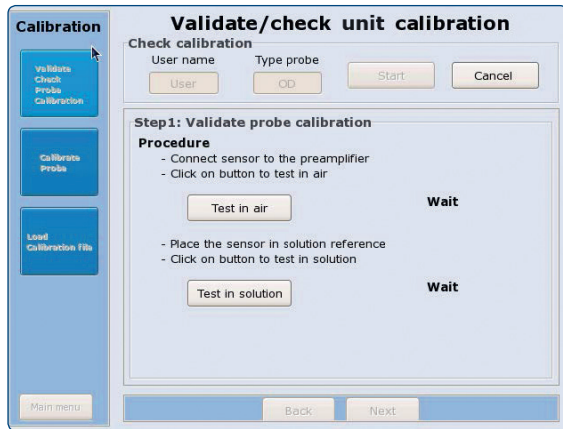


Figure 1: Testing the Pre-amplifier verification.

3 Calibrate the Dencytee Sensor Unit

The Calibration procedure of the Dencytee Sensor Unit is a three-step guided procedure. In addition to this kit a stand to fix the sensor is needed.

⚠ ATTENTION! Make sure that the Val/Cal Solution (Ref 243886) is not expired and avoid contamination or dilution.

- Connect a Dencytee Sensor Unit and power on the Arc View Controller. Equilibrate the Val/Cal Solution (Ref 243886) at 23°C +/- 1°C for at least 30 min prior to starting the Calibration procedure.
- Go to the Main Menu and enter the Calibration Menu. Select Calibrate Unit to start the Calibration procedure.
- Select the channel. The sensor type is automatically detected.
- Enter the user name.
- Make sure that the light path is clean, dust-free and placed in the dark. Press Measure in air to start the Calibration procedure (Figure 2).

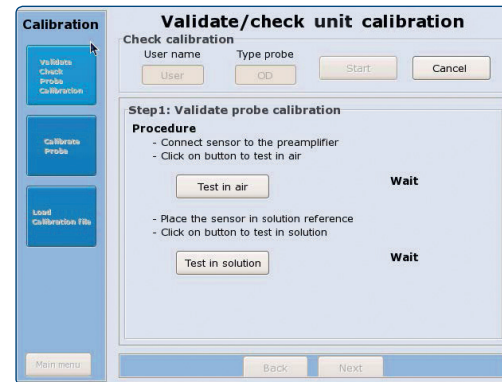


Figure 2: Testing the Pre-amplifier calibration.



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REF 624860/02 — 06/2017

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