



How to Measure DO

1 Probe Preparation

To properly prepare a dissolved oxygen probe before measurement:

- Remove plastic shipping cap and discard.
- Condition the sensor by soaking the bottom inch of the probe in electrolyte solution for a few minutes.
- Inspect the membrane cap. Make sure the membrane is not damaged.
- Prime the cap with electrolyte solution. Shake gently and discard.
- Make sure to seat the rubber o-ring properly inside the cap.
- Fill all the way with new electrolyte solution.
- Flick the cap with your fingers to release any air bubbles that may have formed at the surface of the membrane. (Do not touch the membrane itself as this may damage it).
- With the sensor facing downward, slowly screw the membrane cap upward and counterclockwise (some electrolyte will overflow).
- Rinse the outer body of the probe and inspect membrane for entrapped gas bubbles.
- Connect the DO probe to meter and turn meter on. Allow 15 minutes for probe conditioning (polarizing) function to occur.

2 DO Calibration

One point automatic zero calibration at 0% saturation

- Prepare a fresh bottle of zero oxygen solution by following package directions.
- Pour enough zero oxygen solution to cover the temperature sensor.
- Make sure the meter is on and properly polarized.
- Set the appropriate altitude factor and set the salinity value to zero.
- Submerge the probe past the temperature sensor and stir gently for several minutes until the reading goes down and becomes stable.
- Once stabilized, perform and confirm the 0% DO calibration.

One point automatic slope calibration at 100% water saturated air

- Pour a small amount of water into a beaker or flask.
- Keeping the probe facing downward as normal, hold the probe over a sample of water but do not submerge it.
- Once stabilized, perform and confirm the 100% DO calibration.

3 Taking a DO Measurement

- Make sure that the probe is polarized, calibrated, and the protective cap has been removed.
- Submerge the probe past the temperature sensor into the sample and stir gently.
- Allow time for the reading to stabilize.
- Record or log reading.

4 Probe Storage and Care

- Once you are finished measuring your samples, rinse the probe with deionized water until clean.
- Always be sure to put the clear protective cap back on until the next use.

Measurement Practices

Analytical testing can easily be integrated into the wine production process. Being able to log and recall data points along with calibration information can be of great importance to winemakers.

Good Laboratory Practice (GLP): The GLP feature found on Hanna's DO meters offers the ability for the user to monitor when the DO probe was last calibrated and to what points. This information is stored with logged data.

Calibration Time Out: Some meters offer the user the option to set a reminder for calibration. The user can select a time frame from 1 to 7 days. Once this set time runs out, the meter reminds the user that a new calibration is due.

Reference owner manual for full instructions on the proper use of DO meters.