

# Digital Aquatics® Ti Salinity Probe Data Sheet



## Technical Specifications \*

Operation Range	0 - 50 PPT
Resolution (paired with the SL2 module)	0.1 PPT
Accuracy	2% @ Full Range (High Accuracy)
Temperature Compensated	Yes (active, multi-stage compensation)
Measurement Type	Conductivity ( Converted and reported in PPT)
Calibration	2 point, Open-air and 35PPT
Electrode Material	Titanium (Ti Proprietary Blade Design)
Isolation	Yes, optical isolation via SL2 salinity port
Operational Temperature Range	Water: 70F +/- 30F

\* Calibration required to obtain listed specs.



## Firmware Update Required

The Digital Aquatics Ti Salinity Probe requires the latest firmware update (2.05) for the SL2 module. The latest firmware update is available via the myReef 2.0 software package. For more information on the myReef Software package please visit our support forum at: [www.Forum.digitalaquatics.com](http://www.Forum.digitalaquatics.com)

## Important Notes

- The Digital Aquatics® Ti Salinity Probe is a proprietary probe and is not compatible with other systems.
- The SL2 module is required to monitor salinity with the Ti Salinity Probe.
- Please read and understand the steps required for first time installation of this probe.
- Please read and understand the calibration procedures and frequency for this probe.
- This data sheet is for the new TI Salinity probe released in January 2011.
- The new probe is marked with the following logo "Ti Salinity Probe".
- No part of the data sheet applies to the old salinity probe that was released in late 2009.
- This probe was designed and manufactured in-house by Digital Aquatics engineering and production staff; it is not supplied by a third party vendor.

## Installation Notes



- The probe should be mounted in a high flow area.
- The probe blades (electrodes) should be oriented with the direction of flow.
- The probe should be mounted out of direct light to reduce algae growth.
- The probe should be mounted away from areas where air bubbles form.

## Calibration Information and Steps

- 1 Install the SL2 into your system.
- 2 Plug Ti Salinity probe into the SL2.
- 3 Place the probe into your tank and let sit for 48-72hrs before calibration as an acclimation period.
  - The probe should be placed in a dark part of the tank whenever possible
  - If you don't have a location as stated above, more frequent cleaning **will** be required.
- 4 After the acclimation period, you will need to calibrate.
  - **Be sure to not allow the salinity probe electrodes to make contact with ANY surface during calibration. Doing so will throw off the calibration and result in incorrect measurements.**
  - The ReefKeeper will walk you through the two point calibration. Please see the User Guide for your specific system for detailed calibration instructions.
  - The first calibration point is an open air measurement and represents 0.0 PPT (reported raw data will be around -1400 to -1500). You will need to shake or dry the probe tip so that no moisture is connecting the electrodes.
  - The second calibration point is 35PPT (this is provided with your probe.) If you are out of 35PPT solution you have several options (Note: The calibration solution comes one time use packet). You can use a known solution referenced with a refractometer. Or you can purchase more calibration solution from DA.
  - Calibration frequency: It is good practice to calibrate all probes about once a month. It is also advised to gently clean the probe at that time to avoid the build up of algae. You are, however, encouraged to calibrate and/or clean the probe whenever you feel it's needed.
  - Upon initial calibration you may find that the probe has a slight drift and a recalibration should be done.

## Troubleshooting

- **The probe is reporting salinity that is drifting down over time.**
  - *Make sure air bubbles are not gathering on the electrodes. This will cause the conductivity between the electrodes to drop, affecting PPT readings.*
  - *Some types of algae can reduce sensitivity of the electrodes and reduce the PPT reading. A regular cleaning schedule should reduce the likelihood of this issue.*
  
- **The probe is reporting salinity that is drifting up over time.**
  - *Some types of algae can increase sensitivity of the electrodes and increase the PPT reading. A regular cleaning schedule should reduce the likelihood of this issue.*
  
- **Slow/no response when expected.**
  - *If your probe is mounted in a low flow or stagnant area of your sump or tank, you may see a change in sensitivity. Move the probe to a high flow area.*
  - *There is excessive algae growth or build up. Clean the probe, recalibrate and place back in the tank.*
  
- **The system is reporting "ERROR" and the probe cannot be calibrated.**
  - *Contact Digital Aquatics about warranty support.*
  - *The Ti Salinity probe has a 90 day warranty against manufactures defects.*