

When the Environment Demands It

This calibration worksheet can help document your calibration and track the performance of your sensors. Please follow the detailed calibration procedures in the ProDSS manual or your facility's standard operating procedure (SOP) to ensure all calibrations are as accurate and as consistent as possible.

Refer to the [YSI Solution Expiration Dates](#) document to ensure your calibration solutions are fresh. In addition to using fresh standards, never accept an out-of-range or questionable calibration results.

Calibration Date _____ **Technician:** _____

Handheld Serial Number: _____ **Handheld Software Version:** _____

Cable Serial Number: _____

Temperature

Reading when sensor is dry and in room temp air: _____ Accurate? **Y N**

Conductivity

Reading when sensor is dry and in room temp air: _____ Acceptable value is less than 1 µS/cm

Actual Reading in solution before calibration is accepted: _____

Reading in calibration solution after calibration is completed: _____

Conductivity Cell Constant in GLP* record after calibration: _____

Acceptable range for ProDSS conductivity/temperature sensors (626902) is **4.5 to 6.5**

Acceptable range for integral (i.e. built-in) sensors on ODO/CT assemblies is **4.4 to 6.4**

Optical Dissolved Oxygen

Barometric pressure: _____

Actual Reading before DO% calibration is accepted: _____

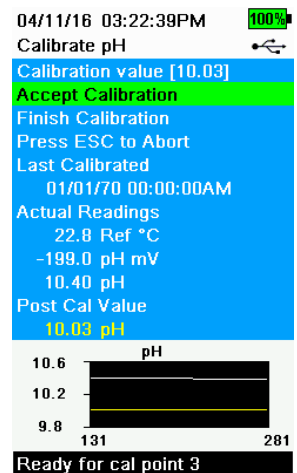
Reading in DO% calibration environment after calibration is completed: _____

ODO gain in GLP record after calibration: _____ Acceptable range is **0.75 to 1.50**

pH

Buffer	Calibration Value	Actual Readings during calibration		Acceptable pH mV in buffer
		pH	pH mV**	
7				-50 mV to 50 mV
4				+165 to +180 from pH 7 buffer mV value
10				-165 to -180 from pH 7 buffer mV value

pH slope in GLP record after calibration: _____ Acceptable range is ~ **55 to 60 pH/mV**
(Ideal is 59.16 mV/pH)



*GLP stands for Good Laboratory Practice file. This calibration record contains important information about the calibration result.

**The pH mV at the time of calibration (Sensor Value) can also be seen in the final pH GLP record.

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ORP

Actual Reading in solution before calibration is accepted: _____

Reading in calibration solution after calibration is completed: _____

ORP Cal Offset in GLP record after calibration: _____ Acceptable range is **-100 to 50**

Turbidity

Calibration value (FNU)*	Actual Reading during calibration
0	
12.4*	
124*	
1010	

Acceptable range for **Actual Reading** during calibration of the first point is **-10 to 10 FNU**

***Note:** The turbidity sensor can be calibrated to 3 points. Either 12.4 or 124 FNU standard can be used for the second point, but not both. Other calibration values can be used when calibrating.



Depth (Completed in Air)

Actual Reading before calibration is accepted: _____

Reading in air after calibration is completed: _____

Ammonium

Concentration** (i.e. Calibration Value)	Actual Readings during calibration		Acceptable mV when the sensor is new
	mg/L	mV***	
1st point: 1 mg/L			-20 mV to 20 mV
2nd point: 100 mg/L			+90 to +130 from mV value in 1 mg/L standard

Nitrate

Concentration** (i.e. Calibration Value)	Actual Readings during calibration		Acceptable mV when the sensor is new
	mg/L	mV***	
1st point: 1 mg/L			180 mV to 220 mV
2nd point: 100 mg/L			-90 to -130 from mV value in 1 mg/L standard

Chloride

Concentration** (i.e. Calibration Value)	Actual Readings during calibration		Acceptable mV when the sensor is new
	mg/L	mV***	
1st point: 10 mg/L			205 mV to 245 mV
2nd point: 1,000 mg/L			-80 to -130 from mV value in 10 mg/L standard

**Other standard concentrations can be used. A 2 point calibration without chilling a third calibration solution is extremely accurate and is the preferred method. However, if there is a large temperature variation during sampling, a chilled third calibration point is recommended.

***The mV at the time of calibration (Sensor Value) for each point can also be seen in the GLP record after a calibration is complete.