



SeapHOx™ V2

Product #:

SEAPHOXV2OCEANCT(D)-
PH-DOSENSOR

USD Price:

Contact Sea-Bird

Product Line Shipping Hold Update

Sea-Bird Scientific has been working with Honeywell to re-start the production of the sensing elements needed for the Deep SeapHOx (ISFET chip) and the Shallow SeaFET/SeapHOx (gel-based DuraFET).

The timeline for restarting service and production of Shallow SeaFETs and SeapHOxes is slightly behind compared to Deep units. This is because first articles of the gel-based DuraFET that is used for the Shallow SeaFET and SeapHOx have not yet been received at Sea-Bird Scientific. These are expected by the end of July and will then go through their own rigorous qualification process to validate use in our products. If received on time, we will likely be able to determine if they meet our quality standards by the end of August.

We will resume service of Shallow SeaFETs and SeapHOxes as our first priority for the available inventory for DuraFETs and will start accepting quote requests for new units once qualification has been confirmed.

The lead time for new units depends on the ability of the supplier to deliver high quality, gel-based DuraFETs on time, but will likely be long. Our expectation with current knowledge is to restart production for Shallow SeaFET and SeapHOxes in early 2024.

An update to this information will be provided in August and details will be posted here.

Other pH product lines that include the HydroCAT-EP V2, SBE 18, and SBE 27 are not impacted by this validation process with Honeywell and remain serviceable and active for new production orders.

Accurate long-term pH measurements

The SeaFET™ V2 is the next generation pH sensor, upgraded from the original SeaFET™. The sensing element is an ion sensitive field effect transistor (ISFET). This class of device has been used for pH sensing in industrial processes, food processing, clinical analysis and environmental monitoring. The advantages of the ISFET include robustness, stability and precision that make it suitable for ocean pH measurement at low pressure. The ISFET potential is measured against two separate reference electrodes: one bearing a liquid junction (internal reference) and a solid state reference electrode (external reference), providing the user with the ability to assess instrument performance and ultimately achieve a greater understanding of the state of acid/base equilibria in seawater.

The SeaFET™ V2 Ocean pH sensor has been used extensively for:

- ocean acidification research
- coral reef research

- coastal marine biology
- environmental monitoring.

Flexible operation

Internal data storage and batteries

Multiple applications

Calibrated using natural seawater

Specifications

Conductivity Accuracy:	± 0.003 mS/cm
Conductivity resolution:	0.0001 mS/cm
Depth Rating:	50 m
Dissolved Oxygen Accuracy:	larger of ± 0.07 ml/L or $\pm 2\%$
Dissolved Oxygen Range:	120% of surface saturation
Dissolved Oxygen Resolution:	0.2 $\mu\text{mol/kg}$
pH Accuracy:	± 0.05
pH Range:	6.5–9
pH Resolution:	± 0.05
Pressure Resolution:	$\pm 0.002\%$ full scale range
Temperature Accuracy:	± 0.002 °C from -5–35 °C; ± 0.01 °C from -5–35 °C
Temperature Range:	-5 to 45 °C
Temperature Resolution:	0.0001 °C