

## SBE 18 pH Sensor

The SBE 18 pH Sensor uses a pressure-balanced glass-electrode, Ag/AgCl-reference pH probe to provide *in-situ* measurements at depths to 1200 m. The replaceable pH probe is permanently sealed and is supplied with a soaker bottle attachment that prevents the reference electrode from drying out during storage. The sensor is a modular, self-contained package that is easy to install, service, and calibrate.

The SBE 18 is intended for use as an add-on auxiliary sensor for profiling CTDs (SBE 9plus; SBE 19, 19plus, and 19plus V2 SeaCAT; and SBE 25 and 25plus Sealogger). Power / signal interface cables and mounting hardware are available separately.



Deploy with pH probe  
in vertical orientation,  
as shown

## Features

- Voltage output; interface circuits buffer and offset the differential glass-electrode/reference potential to produce a high-level, pH-dependant, output voltage.
- Calibrated against precision buffer solutions (4, 7, and 10 pH  $\pm$  0.02 pH); results tabulated on a certificate furnished with each sensor.
- 1200 m housing.
- Supplied with plastic soaker bottle and KCl soaker solution.
- Seasoft<sup>®</sup> V2 Windows software package (computation of pH in engineering units).
- Five-year limited warranty.

## Options

- Straight endcap for vertical mounting, or right angle endcap for horizontal mounting (for example, in an extension stand below an SBE 32 Carousel Water Sampler).
- XSG or wet-pluggable MCBH connector.

## Performance

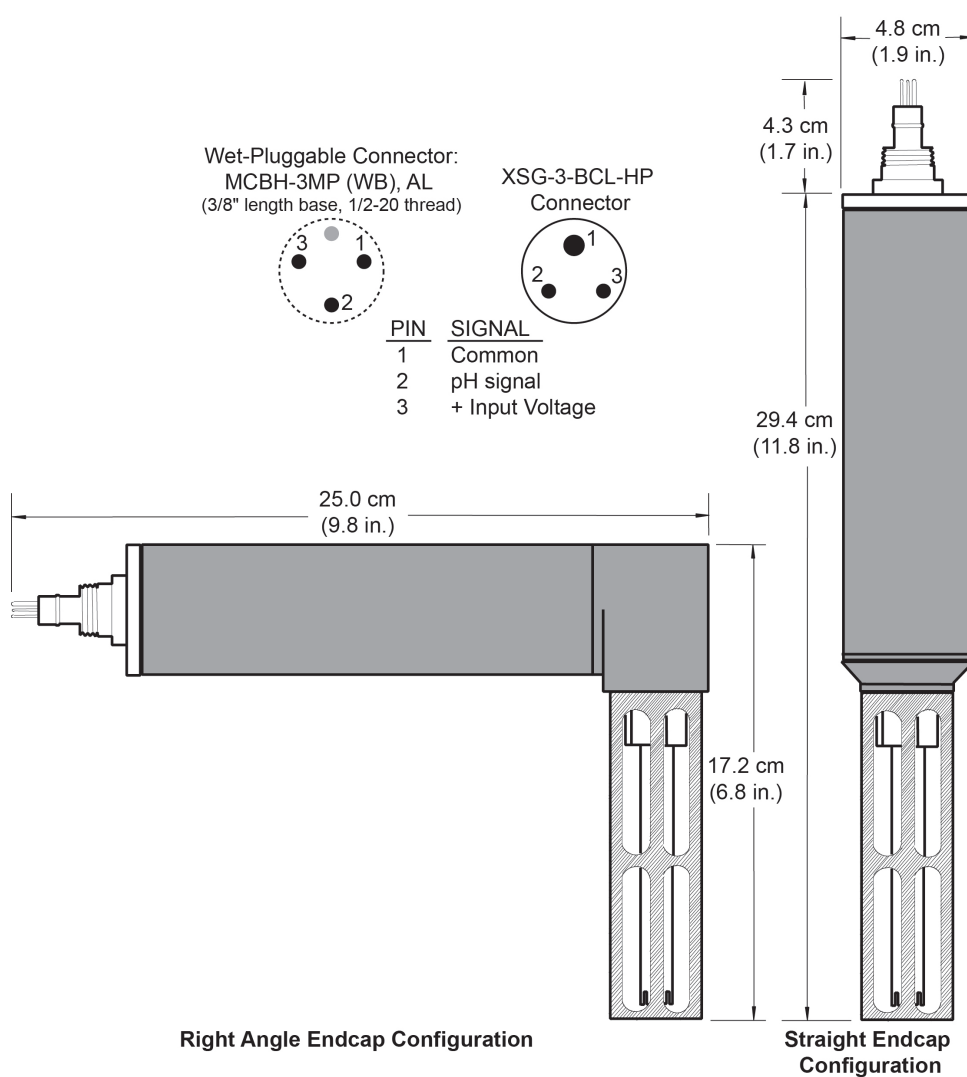
Measurement Range	0 to 14 pH
Accuracy	± 0.1 pH ( <i>stated accuracy achievable with frequent field calibrations</i> )
Time Response	1 sec ( <i>time to reach 63% of final value for a step change in pH</i> )

## Electrical

Input Power	6 to 24 VDC, 15 mA
Output Signal	0 to +5 VDC

## Mechanical

Housing, Depth rating, & Weight	Anodized aluminum (6061-T6), stainless steel 1200 m depth rating 0.7 kg in air, 0.4 kg in water
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Note: SBE 18 must always be mounted with the pH probe in a vertical orientation, as shown in drawings at left. A right angle endcap configuration is typically required for applications where the CTD is mounted horizontally (for example, in an extension stand below an SBE 32 Carousel Water Sampler) and the SBE 18 is mounted to the CTD.