pH

The Teledyne Valeport pH, created in collaboration with ANB Sensors, provides a robust, reliable and calibration-free method of measuring pH within the oceans. Currently rated to a depth of 1250 m and with an accuracy of ±0.05 pH, the instrument is suitable for a variety of installation techniques, including fixed site monitoring, frames and buoys, and ROVs, AUVs and ASVs. The pH sensor is offered as standard in titanium housing, with variable communications options.

Utilising ANB Sensors patented solid-state ion selective electrode technology, the sensor does not require calibration, as with typical pH measurements collected using glass electrodes. The electrodes simply require periodic light abrasion (dependant on deployment settings) and generate their own antifouling solution around the sensor head, making this a highly durable and reliable solution for long term ocean pH measurements.

DATA SHEET

Product Details

CONFIGURE SOFTWARE

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TELEDYNE VALEPORT
Everywhereyoulook™

Sensor Specification

Solid state ion-selective electrode/PRT temp

Range	2-10(pH)/0.5-41ppt (salinity)/-5 - +35°C (temp)
Accuracy	± 0.05pH/±0.01°C
Resolution	0.01 pH/0.001°C

Data Acquisition

Sampling	User configurable/polled
Units	pH/ppt/°C

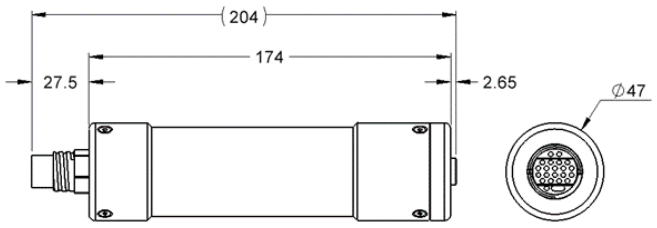
Data Rate

Internal Delay	High Salinity (1-38ppt)	Low Salinity (<1ppt)
<60 min	4 minutes (238 s)	4.25 minutes (255 s)
>60 min	3.65 minutes (219 s)	3.8 minutes (227 s)

Physical

Housing	Titanium
Size	Ø47 mm x 204 mm
Vibration and Shock	Tested to ISO 13628-6:2006 (Q2 Levels)
Weight	1.5 kg (air)
Connector	SubConn type MCBH6F (titanium)
Shipping	42 cm x 32 cm x 22 cm, 3 kg

Dimensions - pH



Communications

Output	RS232, RS485, MODBUS
Protocol	9600-115200 baud (supplied at 115200 baud as standard).

Power Requirements

Input	9-28 V DC (isolated)
Power	<32 mA @ 12 V DC

Software

Teledyne Valeport Configure Software supplied for instrument setup. Teledyne Valeport Terminal/other terminal applications can also be used to communicate with the instrument.

Ordering

092001	Teledyne Valeport pH Sensor, titanium housing, 1250 m depth rated.

Supplied with:
- 0.5 m interface cable
- Sensor abrading tool
- Operational manual
- Teledyne Valeport Configure software
- 2 x pots of Instant Ocean Salt
- Transit case

Datasheet Reference: pH | April 2025

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