

OCEAN SEVEN 311 pH probe

Specifically designed to simplify the monitoring of pH in fresh and saline waters. A temperature sensor is included to automatically compensate the pH readings. High quality long life IDRONAUT pH and reference (KCl or NaCl) sensors. Digital interface (RS232 or RS485) and simple protocol for easy integration with third party CTD, AUV, ROV and USV.

Features

- KCl/NaCl long life reference sensor
- Internal logging and scheduling
- Integrated temperature sensor
- Internal battery pack (*max. working temperature < 60 °C*)
- Calibrated using a single buffer
- Galvanic insulation $10^{-15} \Omega$
- Differential pH preamplifier, $10^{-14} \Omega$ input impedance

Applications

- ✓ Ocean acidification research
- ✓ Coral reef physiology and sensitivity analyses
- ✓ Near-shore biological research
- ✓ Environmental monitoring
- ✓ Volcanic vent monitoring
- ✓ Brine monitoring
- ✓ ROV-AUV-USV



Parameter	Range	Initial Accuracy	Resolution	Response Time
pH	0..14 pH	0.01 pH	0.001 pH	3 s
Temperature	-5.. +35°C	0.01 °C	0.0001 °C	3 s

Environmental

Operating temperature:	-5 to 35 °C
Storage temperature:	-2 to 35 °C
Salinity range:	0 to 350 PSU
Depth range:	up to 700 bar

Electrical

Supply voltage	external:	6 to 18 VDC
	battery:	2.9 to 3.6 VDC
Power consumption sampling:		200 mW
	sleep:	0.01 mA
Batteries:		1x 3.6V AA Lithium
or		2x 1.5V AA Alkaline
Storage:		4 GB
Communication:		RS232C – RS485
Sampling rate:		8 Hz

Operating modes

- ❖ Continuous mode, sampling up to 8 Hz
- ❖ Timed mode, interval from 5 sec. up to 1day
- ❖ Polled mode, responds to data logger via simple proprietary protocol.

Physical characteristics

Housing	1000 dbar AISI / POM	1000 dbar AISI/POM AUV	2000 dbar POM	7000 dar Titanium	7000 dar Titanium AUV
Diameter	48 mm	48 mm	75 mm	48 mm	48 mm
Length	562 mm	435 mm	580 mm	562 mm	435 mm
Weight in water	0.65 Kg	0.6 Kg	0.5 Kg	1.1 Kg	0.9 Kg
Weight in air	1.1 Kg	0.9 Kg	2.2 Kg	1.8 Kg	1.5 Kg

