



# IDRONAUT OCEAN SEVEN 306

## pH & redox probe

The OCEAN SEVEN 306 pH and redox probe is provided with analogue output 0..5V and allows the *in situ* determination of pH and redox (ORP - Oxidation Reduction Potential) in natural waters as oceans, lakes, rivers and estuaries, at depths down to 700 bar. The OCEAN SEVEN 306 pH and redox combined probe, is specifically designed to simplify the integration in CTD probe.

### Specification

<i>Measuring principle:</i>	Potentiometric
<i>pH sensor:</i>	Glass membrane
<i>Redox sensor:</i>	Platinum electrode
<i>Reference sensor inner half cell:</i>	Ag/AgCl double bridge
<i>Measuring range:</i>	
pH	1..13 pH (*)
Redox	+/- 1000 mV
<i>Initial Accuracy:</i>	
pH	0.03 pH
Redox	+/- 10mV
<i>Resolution:</i>	
pH	0.01 pH
Redox	+/- 2mV
<i>Response Time:</i>	$t_{63\%} < 3 \text{ s}$
<i>Temperature range:</i>	-2.. +38°C
<i>Output:</i>	
pH:	0..5 VDC
Redox:	0..5 VDC (**)
<i>Power supply:</i>	12VDC (11..15 VDC)
<i>Power consumption:</i>	30 mA@12 VDC
<i>Bulkhead connector:</i>	MCBH-6-mini-wet-pluggable
<i>Mechanics:</i>	
Probe housing:	White POM for 1500 m or TITANIUM for 7000 m
Sensor body:	TITANIUM
Probe diameter:	POM 75 mm or TITANIUM 48.5 mm
Probe Length:	POM 480 mm or TITANIUM 325 mm



(\*) The pH electronic range is user customizable to: 0..14 pH, 2..12 or 3..11(default).

(\*\*) An offset of +2500mV shift the redox sensor output. Therefore the redox sensor output is +1500 mV to +3500 mV.



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