



SP101-LB

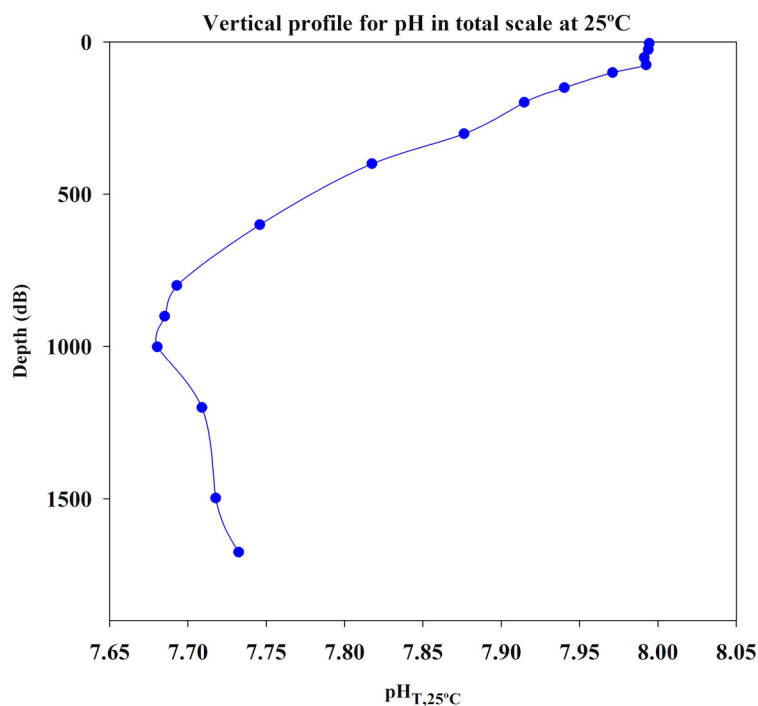
High accuracy On Ship / Laboratory pH Sensor

The SP101-LB is a rugged and extremely stable pH sensor for on ship and laboratory applications. Its construction guarantees accurate and stable measurements under all conditions. Thanks to its high measurement rate (20 measures per minute) the system can be used for continuous flow measurements. The SP101-LB can be connected to an optional external conductivity / temperature sensor and can be thermostated through two 1/2" barbed fittings.



The SP101-LB uses a spectrophotometric based method to measure pH, removing dye effect in each determination, making it valid for very long deployments. The SP101-LB sensor self calibrates prior to each measure and provides the system measurement uncertainty along with the pH results.

The system includes a real time clock allowing autonomous operation, as well as a high accuracy internal temperature sensor. The spectrophotometric light source used is a Sensorlab SL001, a compact, high stability, low settling time and low power LED, that does not degrade and do not require bulb replacements as traditional halogen lamps do.



This data chart has been provided by courtesy of Dr. Melchor Gonzalez, and has been captured in March 2013 over the submarine eruption of El Hierro, Canary islands.

General Specifications

pH Range:	6.8 – 9 in sea water
Typical measurement time:	< 3 minutes
Precision:	< 0.002 pH units
Accuracy:	±0.005 pH units
Indicator life:	10,000 measurements (with 250ml bag)
Indicator:	m-cressol purple
Temperature sensor accuracy:	±0.1°C (-5°C to +35°C)
Full range temperature sensor accuracy:	±0.2°C (-20°C to +50°C)
Host interface:	RS232
Auxiliary Interface with external sensor:	RS232
Internal memory storage capacity:	19000 measurements

Electrical specifications

Operating supply voltage:	9 – 18 Vcc
Supply voltage absolute maximum rating	20 Vcc
Standby power:	0.3 W (0.025A @ 12V)
Measurement power:	9,6 W (0.8A @ 12V)
Peak power (purge phase):	18 W (1.5A @ 12V)
Supply to optional external sensor	12V (500mA max)

Mechanical specifications

Overall Size:	300x340x185 mm (h x w x d)
Housing Size:	300x300x185 mm (h x w x d)
Thermostatic Ports:	1/2" Barbed Fittings (x2)
Housing Material:	ABS & Polycarbonate
Weight:	7,2 Kg

Distributors

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