

pH shallow water sensor with integrated electronic device

Glass and reference electrode in one housing - for depths of up to 1200 m



The pH-combined shallow water sensor with integrated electronic device has been developed above all for interfacing with existing CTD probe systems. The sensor consists of a pressure balanced glass-electrode and a reference electrode (Ag/AgCl) in a plastic rod. It is equipped with a ceramic diaphragm containing a high number of pores. The electrolyte is a KCl containing gel without silver ions to allow also measurements in H₂S and sulphide containing samples. The pH shallow water sensor is equipped with a titanium housing including the electronic device, with a plastics protection cage and a BH 4 M SUBCONN titanium connector. On own risk the protection cage could be screwed off. The sensor has to be calibrated by the customer itself (calibration on request). All electrodes are delivered with wetting cap containing pH 4 buffer/KCl and covering the measuring end.

Main features:

☞ measuring range:	variable between 0...14 pH
☞ accuracy:	0,05 pH
☞ resolution:	approx. 0,003 pH
☞ pressure range:	up to 1200 dbar
☞ dimensions:	length over all: 240 mm diameters: max. 37 mm (with protection cage) max. 30 mm (without protection cage)
☞ connector:	BH 4 M SUBCONN, titanium, others on request
☞ output:	0 to 5 V DC
☞ input voltage:	9 to 30 V DC
☞ current uptake:	approx. 13 mA
☞ response time:	1 second (63% of reading)

Fig.: pH shallow water sensor with integrated electronic device for CTD probes