

CONTROS HydroFIA pH



KONGSBERG



HIGHLY ACCURATE, DRIFT- AND CALIBRATION FREE pH ANALYZER

The CONTROS HydroFIA® pH is a flow-through system for the determination of the pH value in both saline solutions and brackish waters. The autonomous pH analyser can be used in the lab or easily integrated into existing automated measuring systems on e.g. voluntary observing ships (VOS).

Operating principle

Basis for the determination is the change of the color of the indicator m-Cresol purple in dependence of the sample pH value. For each measurement, a small volume of indicator dye is injected into the sample stream of which the pH value is then determined by means of VIS absorption spectrometry.

Benefits

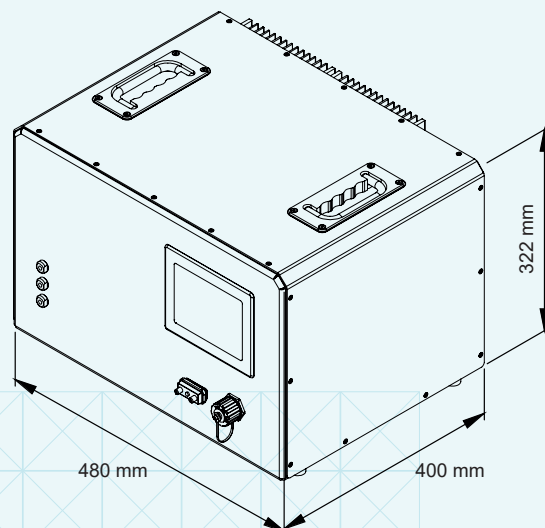
Measuring the pH value using m-Cresol purple is an absolute measurement method. Combined with the technical implementation, this analyser is calibration-free and therefore suitable for long-term applications. Furthermore, the analyser can be used for monitoring of e.g. short-term biogeochemical processes.

The low reagent consumption makes long deployment times possible with only minimal maintenance requirements. Once the analyser runs out of reagents, the cartridges can be easily exchanged due to their user-friendly design. In addition, the low sample consumption enables the pH determination from small sample volumes.



FEATURES

- Calibration free
- Drift free
- Measurement cycles of approx. 2 min
- Low sample consumption
- Low reagent consumption
- User-friendly reagent cartridges
- One device for single measurements to autonomous long-term installations
- Second inlet for regular standard measurements
- Integrated acid flush for regular cleaning during operation



TECHNICAL SPECIFICATIONS

CONTROS HydroFIA pH

Detector System	VIS absorption spectrometry Temperature stabilized bench-top system
Field application	Surface water
Dimensions	480 x 400 x 322 mm
Weight	25 kg
Temperature range:	
• water	+5 °C to +30 °C
• ambient	+5 °C to +30 °C
Salinity range	0 psu to 40 psu
Measuring range	pH 7.3 to 8.7
Measurements per cartridge	approx. 16000
Resolution	0.001
Accuracy ^[1]	±0.003
Precision	±0.001
Measurement cycle	approx. 2 min
Power supply	100 VAC to 240 VAC
Data interface	Ethernet, RS-232

OPTIONS

- Integration into automated measuring systems on VOS
- Cross-flow filters for high turbidity / sediment loaded waters
- Additional acid / indicator cartridges

Front page image: CONTROS HydroFIA® pH flow-through system.

¹⁾ compared to calculated pH of reference material at pH of approx. 7.9 from Scripps Institution of Oceanography of the University of California, San Diego.

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Specifications subject to change without any further notice.

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